

EWA2021

EVVA 2021

Electrical Wiring Accessories

ionnic | 

Mission Statement

To become the preferred supplier of electrical, lighting and safety solutions for mobile plant and equipment in the mining and services industry.

We will continue to improve and expand our range of products that meet and exceed OEM standards, maintaining the latest technology and innovation available backed by technical support and supply.



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ION-Guard™



NEW in Enclosures

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What's new in EWA2021

NEW in Circuit Protection



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PA6

PA6 (Nylon) is ideal for applications that require a conduit with high impact and abrasion protection with outstanding chemical resistance.

PA6 (Nylon) conforms to FMVSS302, is flame retardant, halogen free and maintains excellent flexibility in temperature extremes of -40°C to 120°C.

PA6 (Nylon) conduit is supplied non-split making it ideal for mining and fuel haul applications when used with the extensive range of Schlemmer sealed fittings.



PPmod (High Temp)

PPmod (High Temperature Polypropylene) makes for a flexible conduit with good impact and abrasion resistance and can withstand a broad range of chemicals.

PPmod has a working temperature range of -40°C to 135°C, is self-extinguishing and conforms to FMVSS302.

PPmod (High Temperature Polypropylene) conduit is supplied non-split as well as in a 'Lockable' format making it ideal for use in engine bays, open environment applications or for application after a harness has been installed.



PP (Standard)

PP (Standard Polypropylene) is used in the manufacture of basic automotive conduit.

FMVSS302 compliant, a temperature range of -40°C to 105°C with basic impact, abrasion and chemical resistance. PP (Standard Polypropylene) is ideal for vehicle interior, chassis and body sections.

PP (Standard Polypropylene) conduit is only available in split configuration and is compatible with a wide range of Schlemmer Hinged Fittings and SEM-FAST adaptors.





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Conduit & Conduit Fittings

NW Size Cross Reference

Due to varying sizing methods and manufacturer interpretations there are different sizing formats used for PA6, PP Split and PPMOD Lockable conduit.

The table below provides a cross-reference for all conduit ranges within this catalogue to Schlemmer NW sizing, and to UK NC sizing.

NW Schlemmer Identification	PA6 Conduit	PPmod Lockable Conduit		PP Split Conduit	NC UK Identification
Size	Part Number	Part Number	NW V	Part Number	Size
NW4.5	1200068	—	—	LT5	NC06
NW6	1200069	—	—	—	NC07
NW7.5	1200070	—	—	LT7	NC08
NW8.5	1200089	—	—	—	NC10
NW10	1200100	1940008	NW8.5 V	LT10	NC12
NW13	1200135	1940011	NW11 V	LT13	NC16
NW14	—	1940013	NW13 V	—	—
NW17	1200178	1940015	NW15 V	LT16	NC20
NW22	1200224	1940019	NW19 V	LT20	NC25
NW26	—	1940026	NW26 V	—	NC30
NW29	1200291	—	—	LT30	NC32
NW37	1200372	—	—	LT36	NC40
NW50	1200500	—	—	—	NC50

Please note that due to many different qualities of split conduit available on the market only IONNIC supplied PP & PPMOD Split Conduit is confirmed to match the above NW sizing.

Identification

Marked on all rolls of PA6 & PPMOD conduit, as well as all Hinged Fittings and SEM-FAST Fittings is an 'NW' number.



Conduit



Sealed Fittings

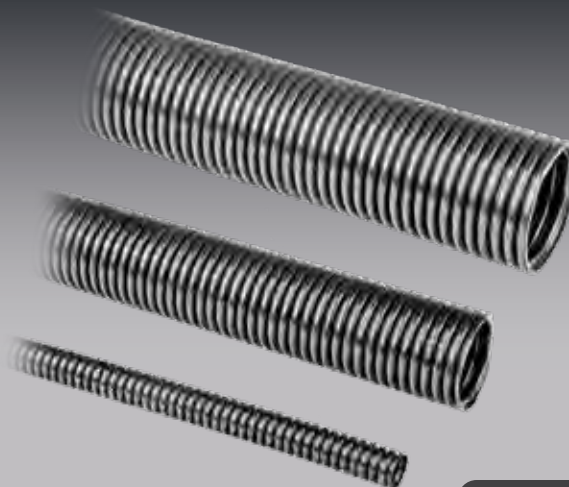


Hinged Fittings

Conduit & Conduit Fittings

Polyflex® PA6

- Highly durable & flexible.
- Self-extinguishing, flame retardant & halogen free.
- High chemical, oil & solvent resistance.
- Wide range of sizes.
- Made in Europe.

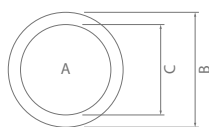
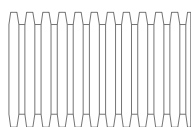


Material : Polyamide 6 (PA6)
Approvals : TUV, NFR, L.C.O.E., UL, ADR & GGVS
Burning Behaviour : FMVSS 302, <100mm/min
 UL94 HB
UV Resistance : DIN EN ISO 8580
Operating Temperature : Continuous -40°C to 120°C
 Short Term 150°C

Made in Europe



ADR



Polyflex® PA6 Corrugated Conduit (Nylon)

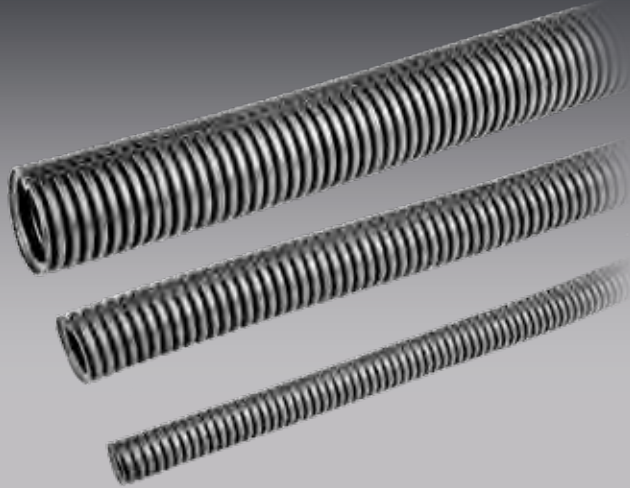
Part No.	NW - A	NC - A	B (mm)	C (mm)	Roll Length (m)
1200068/100	4.5	6	7.1	5.0	100
1200069/100	6.0	7	9.2	6.0	100
1200070/50	7.5	8	10.0	6.7	50
1200807/5000	7.5	8	10.0	6.7	5000*
1200089/50	8.5	10	11.7	8.4	50
1200808/3300	8.5	10	11.7	8.4	3300*
1200100/50	10.0	12	13.0	9.9	50
1200810/3000	10.0	12	13.0	9.9	3000*
1200135/50	13.0	16	15.8	12.7	50
1200813/2000	13.0	16	15.8	12.7	2000*
1200178/50	17.0	20	21.2	16.6	50
1200817/1100	17.0	20	21.2	16.6	1100*
1200224/50	22.0	25	25.4	21.3	50
1200822/700	22.0	25	25.4	21.3	700*
1200291/25	29.0	32	34.5	29.0	25
1200829/450	29.0	32	34.5	29.0	450*
1200372/25	37.0	40	42.4	36.0	25
1200500/25	50.0	50	54.0	47.0	25

* Bulk stock lead times may apply. Supplied in octagon.



Conduit & Conduit Fittings

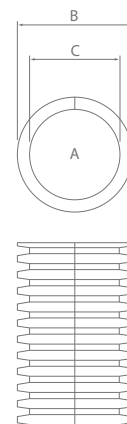
Polyflex® PPmod



Made in Europe

- Available in locking and split styles.
- Incorporated locking mechanism for security and usability.
- Can be reopened after being locked closed.
- Can be closed by hand or for high volumes, closing tool available.
- Self-extinguishing & flame retardant.
- UV resistant & acid proof.
- Ideal for extreme temperature application.
- Made in Europe.

Material : High Temperature Polypropylene
Burning Behaviour : FMVSS 302
 Self-extinguishing Type B & burning rate O (DIN7500)
UV Resistance : DIN EN ISO 8580
Operating Temperature : Continuous -40°C to 135°C
 Short Term 500 hrs @150°C



Polyflex® PPmod Corrugated Conduit – Split

Part No.	NW – A	B (mm)	C (mm)	Roll Length (m)
1927304/100	4.5	7.1	5.0	100
1927306/100	6	9.2	6.0	100
1927308/50	8.5	12.9	8.5	50

Conduit & Conduit Fittings

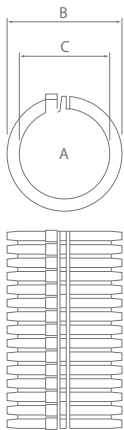
Lockable Conduit

Polyflex PPmod Lockable conduit has been specifically developed to incorporate the convenience of a split conduit combined with the benefits and security of a non-split conduit.

The locking mechanism provides a secure seal which can be simply reopened after locking to allow access to the harness without damaging the conduit in the process.



Can be closed by hand or for high volumes, closing tools are available, see page 16.



Polyflex® PPmod Corrugated Conduit – Lockable

Part No.	NW V – A	NW – A	B (mm)	C (mm)	Roll Length (m)
1940008/50	8.5	10	12.8	8.6	50
1940011/50	11.0	13	15.7	11.2	50
1940013/50	13.0	14	18.3	12.2	50
1940015/50	15.0	17	21.3	14.9	50
1940019/50	19.0	22	25.6	19.0	50
1940026/25	26.0	26	31.5	24.6	25

NW V size is marked on PPmod Lockable Conduit.

Lockable Conduit Closing Tool

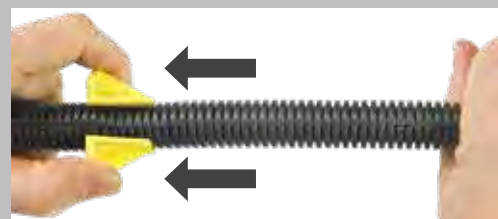


Closing Tool

See page 16 for more details.



Pinch one end of PPmod Lockable conduit closed and squeeze on closing tool.

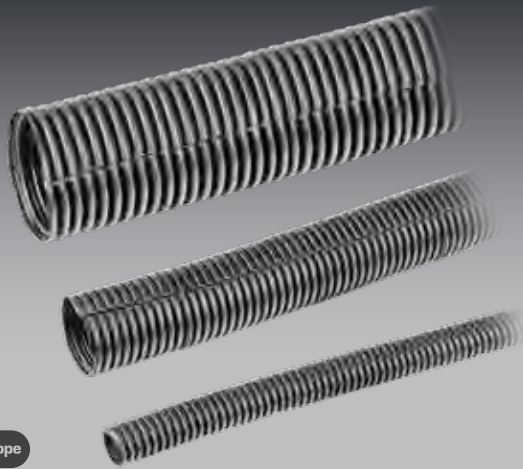


While holding one end pull the locking tool down the length of conduit.



Conduit & Conduit Fittings

PP Split



Made in Europe

- Quick & easy cable insertion.
- Wide range of sizes & lengths available.
- Compatible with a wide selection of the Schlemmer Hinged and SEM-FAST fittings.
- Made in Europe.

Material : Polypropylene
 Operating Temperature : Continuous -20°C to 90°C
 Short Term 120°C



PP Corrugated Conduit – Split

Part No.	NW – A	B (mm)	C (mm)	Roll Length (m)
LT5/100	4.5	8.0	5.0	100
LT7/50	7.5	10.4	7.0	50
LT7/400	7.5	10.4	7.0	400
LT10/30	10	12.8	9.7	30
LT10/250	10	12.8	9.7	250
LT13/30	13	15.7	12.6	30
LT13/150	13	15.7	12.6	150
LT16/30	17	20.9	16.3	30
LT16/100	17	20.9	16.3	100
LT20/30	22	25.2	21.1	30
LT20/100	22	25.2	21.1	100
LT25/50	23	30.0	25.0	50
LT30/50	29	35.0	31.2	50
LT36/25	37	42.0	36.0	25

Only IONNIC supplied PP Split Conduit is confirmed to match NW sizing on the market.
 Not a Schlemmer product.

Conduit & Conduit Fittings

- End Caps/Sleeves suitable for single or multiple cables.
- Quick & easy means of conduit termination using End Caps.
- Securely fasten PP Split & PPmod conduit using Conduit Support Clips.
- Quick & secure 'pop-in' style Christmas Tree mounting clips.
- 'P' Clamps for offset mounting.
- Range of conduit tools available.
- Made in Europe.

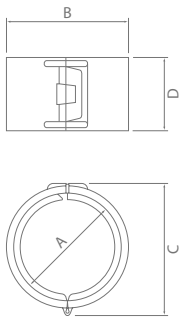


Fig 1

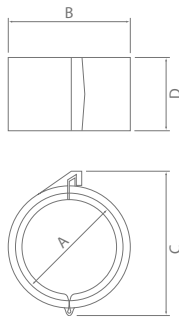


Fig 2



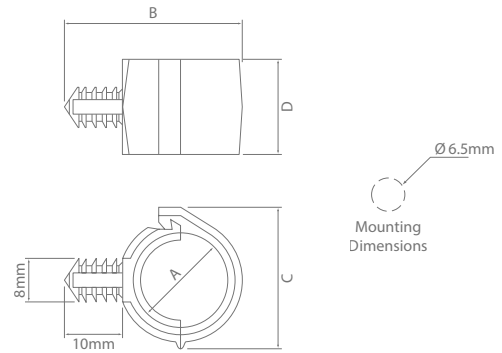
Conduit Support Clips

Part No.	NW - A	NC - A	B (mm)	C (mm)	D (mm)	Pack Qty	Fig
9805940/10	4.5	6	10	12	10	10	1
9805941/10	7.5	8	13	15	13	10	1
9805941/100	7.5	8	13	15	13	100	1
9805939/10	8.5	10	16	18	13	10	2
9805942/10	10	12	16	18	13	10	1
9805943/10	13	16	19	21	13	10	1
9805944/10	17	20	24	26	15	10	1
9805945/10	22	25	29	30	16	10	1

Clips use corrugations to hold conduit in place to stop any lateral movement.



Conduit & Conduit Fittings



9805917/10

9805914/10

Conduit Mounting Clips

Part No.	NW - A	NC - A	B (mm)	C (mm)	D (mm)	Pack Qty
9805917/10	4.5	6	21	13	13	10
9805911/10	7.5	8	24	16	13	10
9805912/10	8.5	10	25	17	13	10
9805913/10	10	12	27	18	13	10
9805914/10	13	16	30	21	13	10
9805925/10	17	20	35	26	13	10
9805916/10	22	25	40	31	13	10

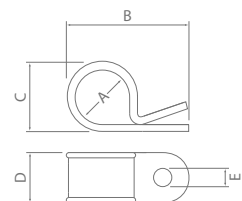
Clips use corrugations to hold conduit in place to stop any lateral movement.



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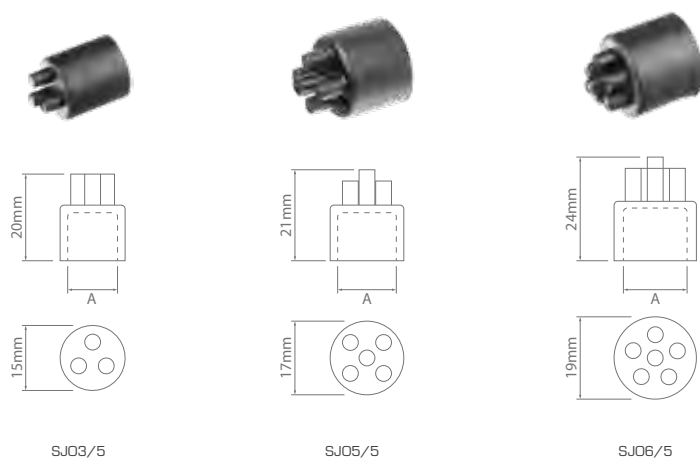
8211019/10



'P' Clamps - Heavy Duty

Part No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Pack Qty
8211060/10	5.7 - 6.3	28	10	16	6.6	10
8211094/10	8.6 - 9.3	30	14	16	6.6	10
8211108/10	9.5 - 10.3	32	15	16	6.6	10
8211124/10	11.5 - 12.3	34	17	16	6.6	10
8211000/10	12.3 - 13.3	36	18	16	6.6	10
8211035/10	15.5 - 16.3	38	121	16	6.6	10
8211019/10	21.4 - 22.3	47	27	19	6.6	10
8211027/10	24.4 - 25.3	58	32	23	8.6	10

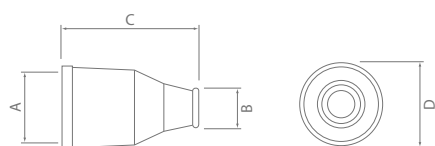
Conduit & Conduit Fittings



Conduit End Caps

Part No.	NW – A	NC – A	No. of Outlets	Pack Qty
SJ03/5	8.5 – 10	10 – 12	3	5
SJ05/5	10	12	5	5
SJ06/5	13	16	6	5

Single cable outlets can be achieved by trimming the end from an individual gland.



SJ12/5



Conduit End Sleeves

Part No.	NW – A	NC – A	Outlet Ø – B (mm)	C (mm)	D (mm)	Pack Qty
SJ12/5	10	12	4 – 8	29	18	5
SJ16/5	13	16	6 – 10	33	22	5
SJ20/5	17	20	9 – 15	33	27	5
SJ25/5	22	25	10 – 17	47	29	5
SJ32	29	32	12 – 20	48	35	1
SJ40	37	40	19 – 30	47	44	1



Conduit & Conduit Fittings



Fig 1



Fig 2



Fig 3



Fig 4

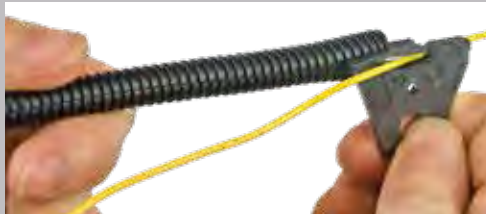
Conduit Tools

Part No.	Description	Suitable Conduit Size (NW)	Suits	Fig
9001511	Single cable insertion tool	6 – 13	Lockable & Split	1
9001520	Universal cable insertion tool with offset flange	10 – 26	Lockable & Split	2
9001543	Universal cable insertion tool – small	8.5 – 12	Lockable & Split	3
9001550	Universal cable insertion tool – large	13 – 26	Lockable & Split	3
9001558	Closing tool for PPmod Lockable conduit – Black	8.5 V	Lockable	4
9001561	Closing tool for PPmod Lockable conduit – Grey	11 V	Lockable	4
9001552	Closing tool for PPmod Lockable conduit – Blue	13 V	Lockable	4
9001567	Closing tool for PPmod Lockable conduit – Yellow	15 V	Lockable	4
9001555	Closing tool for PPmod Lockable conduit – Green	19 V	Lockable	4
9001564	Closing tool for PPmod Lockable conduit – Red	26 V	Lockable	4

Using Conduit Tools



Single Cable Insertion Tool



Insert the point of the single cable insertion tool into end of conduit with cable as shown.



While holding end of conduit with cable, pull the insertion tool down the length of conduit.



Universal Cable Insertion Tool



Insert tool wedge containing wires into conduit split.



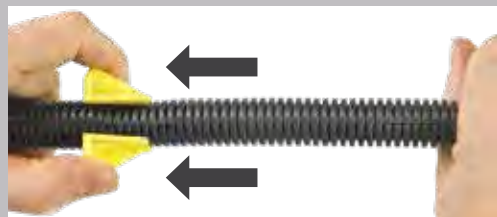
Drag insertion tool down the length of conduit whilst holding cables.



Closing Tool



Pinch one end of PPmod Lockable conduit closed and squeeze on closing tool.



While holding one end pull the locking tool down the length of conduit.

Conduit & Conduit Fittings

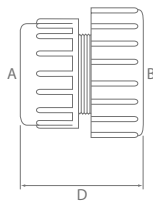
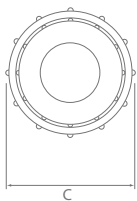
- Attach military spec. & TE DEUTSCH HD Series connectors to a sealed conduit system.
- Compatible with Polyflex PA6 conduit – page 9.
- Seals to IP67 using supplied conical seal with PA6 conduit.
- Suitable for hazardous applications when used with PA6 conduit.
- Made in Europe.



Adaptor Body :
Conical Seal :
Cap Nut :

Polycarbonate
Neoprene
Polyamide 6

Made in Europe



Military Plug Adaptor Kits

Part No.	NW – A	NC – A	Thread Size – B	C (mm)	D (mm)	Notes
SF02	10	12	7/8" -20 UNEF	36	31	
SF06	10	12	1" -20 UNEF	39	35	
SF03	17	20	1" -20 UNEF	36	35	
SF01	17	20	M35 x 1.75	36	35	Suits TE DEUTSCH HDP Series with LO15 mod.
SF04	17	20	1, 3/16" -18 UNEF	36	38	Suits TE DEUTSCH HD36-18 adaptors
SF05	22	25	1, 7/16" -18 UNEF	38	44	Suits TE DEUTSCH HD36-24 adaptors
SF12	22	25	1, 5/8" -18 UNEF	44	48	
SF14	22	25	M34 x 1.25	45	41	
SF13	29	32	1, 5/8" -18 UNEF	45	48	

Kits contain: 1 x Adaptor Body, 1 x Conical Seal & 1 x Cap Nut.



Conduit & Conduit Fittings

SEM-FAST Adaptors

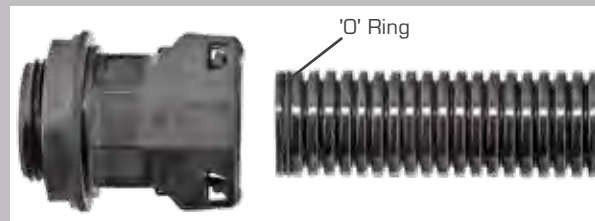


- Flame retardant & halogen free Polyamide 6.
- Compatible with PA6, PPmod or PP Split conduit.
- Special lock-in design.
- High tensile strength.
- Seals to IP67 using supplied 'O' Ring, only with PA6 conduit.
- Made in Europe.

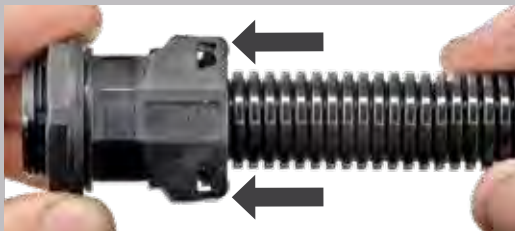
Made in Europe

Adaptor Body : Polyamide 6 (PA6)
 'O' Ring : Perbunane
 Burning Behaviour : According to FMVSS 302 < 100mm/min

Using SEM-FAST Adaptor Kits



To create a seal of up to IP67* use the supplied 'O' Ring in the first groove of the conduit.
 * IP67 seal can only be achieved when used with PA6 conduit.

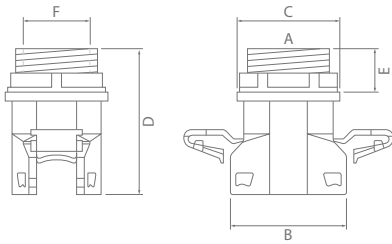


Insert conduit into already 'closed' SEM-FAST adaptor and firmly push in until locking clamps catch.



To remove fitting use a small flat blade screwdriver to disengage clamps from conduit.

Conduit & Conduit Fittings



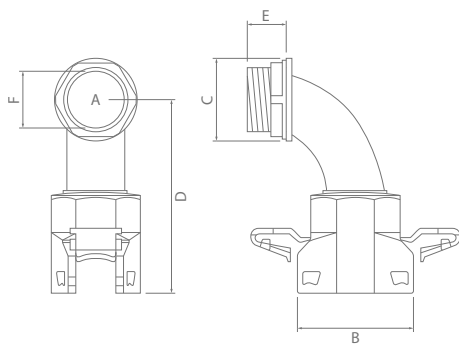
SEM16M16/5



SEM-FAST Adaptor Kit – Straight

Part No.	NW – A	NC – A	Thread Size	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Pack Qty
SEM8PG7/5	7.5	8	PG7	19	18	34	11	7.5	5
SEM10M12/5	8.5	10	M12 x 1.5	20.6	20	35	11	7.5	5
SEM12M12/5	10	12	M12 x 1.5	21.6	22	36	12	7.5	5
SEM12M16/5	10	12	M16 x 1.5	21.6	22	36	12	11	5
SEM16M16/5	13	16	M16 x 1.5	25.5	25	38	12	11	5
SEM16M20/5	13	16	M20 x 1.5	25.5	25	38	12	15.2	5
SEM20M20/5	17	20	M20 x 1.5	34.5	31	43	13	15.4	5
SEM20M25/5	17	20	M25 x 1.5	34.5	31	43	13	19.1	5
SEM25M25/5	22	25	M25 x 1.5	40.5	36	48	13	25	5
SEM32M32	29	32	M32 x 1.5	49.5	46	52	15	25.5	1
SEM40M40	37	40	M40 x 1.5	59	55	62	17	34	1
SEM50M63	50	50	M63 x 1.5	72	83	68	19	54	1

Kits contain: 1 x Adaptor Body, 1 x Flat Washer, 1 x Nut, 1 x 'O' Ring.



SEM16M1690/5



SEM-FAST Adaptor Kit – 90°

Part No.	NW – A	NC – A	Thread Size	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Pack Qty
SEM12M1690/5	10	12	M16 x 1.5	21.6	20	49.3	12	9.5	5
SEM16M1690/5	13	16	M16 x 1.5	25.5	20	51.8	12	9.5	5
SEM16M2090/5	13	16	M20 x 1.5	25.5	25	59.3	12	13.5	5
SEM20M2090/5	17	20	M20 x 1.5	34.5	25	58.3	12	13.5	5
SEM20M2590/5	17	20	M25 x 1.5	34.5	31	64.5	13	17	5
SEM32M3290	29	32	M32 x 1.5	49.5	38	74.6	13	23	1
SEM40M4090	37	40	M40 x 1.5	59	48	92.5	15	31	1
SEM50M6390	50	50	M63 x 1.5	72	83	125.1	19	54	1

Kits contain: 1 x Adaptor Body, 1 x Flat Washer, 1 x Nut, 1 x 'O' Ring.



Conduit & Conduit Fittings

Threadconnect Adaptors



SD40M40

- Compatible with PA6 or PPmod Lockable conduit.
- Halogen free.
- Wide range of sizes.
- Seals to IP67 using supplied conical seal with PA6 conduit.
- Made in Europe.

SD12M1690/5

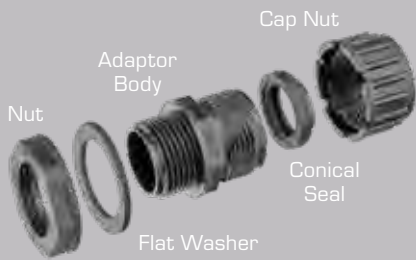


Made in Europe

Adaptor Body :
 'O' Ring :
 Flat Washer :

Polyamide 6 (PA6)
 Neoprene
 Perbunane

Using Threadconnect Adaptor Kits

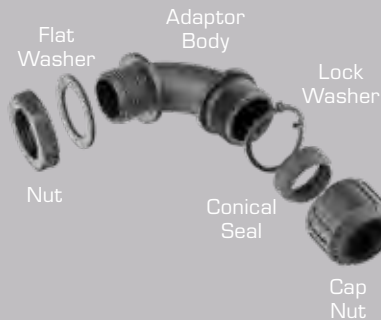


For maximum effectiveness the conical seal must be placed at least two corrugations back from the end of the conduit, as shown above.

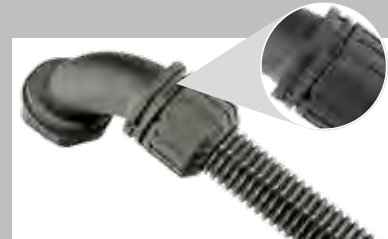


Tighten firmly by hand to ensure an IP67* rated connection.

* IP67 seal can only be achieved when used with PA6 conduit.



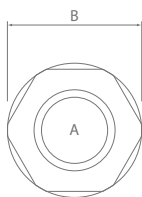
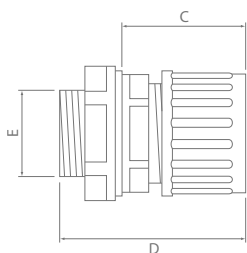
For maximum effectiveness the conical seal must be placed at least two corrugations back from the end of the conduit, as shown above.



When tightening 90° Kits, the locking washer will click into the groves in the cap nut ensuring a secure, slip-free IP67* rated connection.

* IP67 seal can only be achieved when used with PA6 conduit.

Conduit & Conduit Fittings



SD32M32

Threadconnect Adaptor Kits – Straight

Part No.	NW – A	NC – A	Thread Size	B (mm)	C (mm)	D (mm)	E (mm)	Pack Qty
SD10M16/5	8.5	10	M16 x 1.5	25	25	38	16	5
SD12M16/5	10	12	M16 x 1.5	25	29	40	16	5
SD12M20/5	10	12	M29 x 1.5	29	29	40	20	5
SD12PG11/5	10	12	PG11	26	29	40	19	5
SD16M16/5	13	16	M16 x 1.5	27	26	38	16	5
SD16M20/5	13	16	M20 x 1.5	27	26	38	20	5
SD16PG13/5	13	16	PG13	29	26	34	20	5
SD20M20/5	17	20	M20 x 1.5	32	28	42	20	5
SD20PG16/5	17	20	PG16	34	28	40	23	5
SD25M25/5	22	25	M25 x 1.5	46	35	49	25	5
SD25M32/5	22	25	M32 x 1.5	50	33	48	32	5
SD32M32	29	32	M32 x 1.5	52	35	49	32	1
SD32PG29	29	32	PG29	52	35	49	37	1
SD40M40*	37	40	M40 x 1.5	63	37	49	40	1
SD50M50*	50	50	M50 x 1.5	76	37	49	50	1

Kits contain: 1 x Adaptor Body, 1 x Flat Washer, 1 x Nut, 1 x Conical Seal & 1 x Cap Nut.

* Supplied with 'O' Ring & Acetal Clamping Ring instead of Flat Washer & Conical Seal. Seals to IP54.

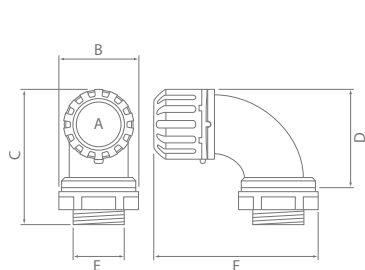


Fig 1

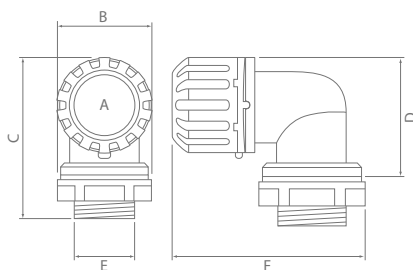


Fig 2



SD25M2590/5

Threadconnect Adaptor Kits – 90°

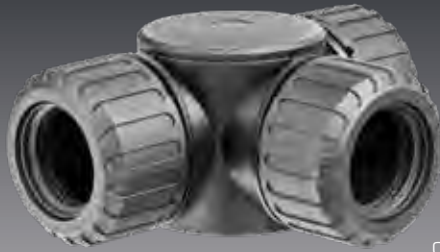
Part No.	NW – A	NC – A	Thread Size	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Pack Qty	Fig
SD10M1690/5	8.5	10	M16 x 1.5	25	46	35	16	59	5	1
SD12M1690/5	10	12	M16 x 1.5	25	46	35	16	59	5	1
SD16M1690/5	13	16	M16 x 1.5	26	47	35	16	59	5	1
SD16M2090/5	13	16	M20 x 1.5	29	49	36	20	60	5	1
SD20M2090/5	17	20	M20 x 1.5	31	52	44	20	62	5	1
SD25M2590/5	22	25	M25 x 1.5	39	62	47	25	74	5	1
SD32M3290	29	32	M32 x 1.5	47	70	54	32	81	1	2

Kits contain: 1 x Adaptor Body, 1 x Flat Washer, 1 x Nut, 1 x Conical Seal & 1 x Cap Nut.



Conduit & Conduit Fittings

Threadconnect Fittings



CTPB28

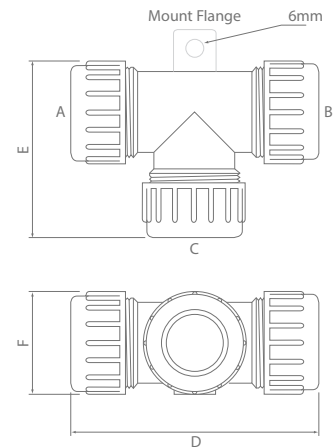


SE20

Made in Europe

- Compatible with PA6 or PPmod Lockable conduit.
- 'T' Piece Locking version supplied with lock washer to prevent cap nut from coming loose.
- Seals to IP67 using supplied conical seal with PA6 conduit.
- Suitable for hazardous applications when used with PA6 conduit.
- Made in Europe.

Adaptor Body : Polycarbonate
 Conical Seal : Neoprene
 Cap Nut : Polyamide 6
 Operating Temperature : -25°C to 80°C



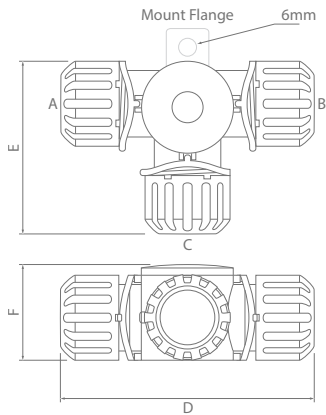
Threadconnect 'T' Piece Kits

Part No.	A	NW B	C	A	NC B	C	Mount Flange	D (mm)	E (mm)	F (mm)	Pack Qty
SE10	8.5	8.5	8.5	10	10	10	No	74	50	24	1
SE12	10	10	10	12	12	12	No	80	53	24	1
SE20	17	17	17	20	20	20	Yes	76	54	32	1
SE25*	22	22	22	25	25	25	Yes	96	83	42	1
SE2520	22	22	17	25	25	20	Yes	96	53	42	1

Kits contain: 1 x Adaptor Body, 3 x Conical Seal & 3 x Cap Nut.

* Supplied with adaptor to achieve outlet size.

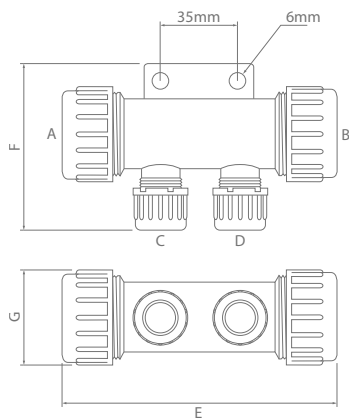
Conduit & Conduit Fittings



Threadconnect 'T' Piece Kits – Locking

Part No.	NW			NC			Mount Flange	D (mm)	E (mm)	F (mm)	Pack Qty
	A	B	C	A	B	C					
CTP12	10	10	10	12	12	12	No	73	52	28	1
CTP16	13	13	13	16	16	16	No	75	53	31	1
CTPB20	17	17	17	20	20	20	No	82	60	36	1
CTPB28	22	22	22	25	25	25	Yes	98	71	43	1
CTPB32	29	29	29	32	32	32	Yes	106	83	50	1

Kits contain: 1 x Adaptor Body, 3 x Locking Washer, 3 x Conical Seal, 3 x Cap Nut & 1 x Adaptor Body Access Cap.
Not compatible with Threadconnect Reducers.



Threadconnect Manifold Kit

Part No.	NW				NC				E (mm)	F (mm)	G (mm)	Pack Qty
	A	B	C	D	A	B	C	D				
SE25X12	22	22	10	10	25	25	12	12	121	73	42	1

Kit contains: 1 x Adaptor Body, 4 x Conical Seal & 4 x Cap Nut.

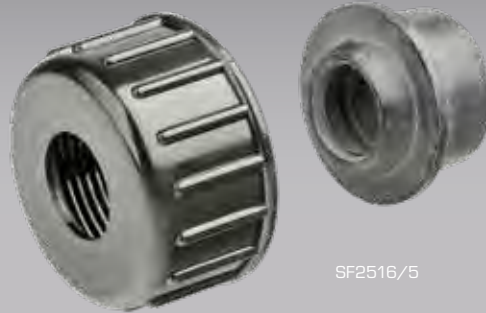


Conduit & Conduit Fittings

Threadconnect Reducers



SF1612/5



SF2516/5

Made in Europe

- Compatible with PA6 or PPmod Lockable conduit.
- Seals to IP67 using supplied conical seal with PA6 conduit.
- Suitable for hazardous applications when used with PA6 conduit.
- Made in Europe.

Reducer Seal :
Cap Nut :

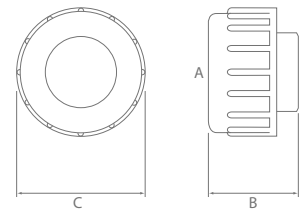
Neoprene
Polyamide 6



SF1208/5



SF2520/5



Threadconnect Reducer Kits

Part No.	NW Size Reduction – A	NC Size Reduction – A	B (mm)	C (mm)	Pack Qty
SF1208/5	10 to 7.5	12 to 8	20	24	5
SF1612/5	13 to 10	16 to 12	22	26	5
SF2012/5	17 to 10	20 to 12	23	32	5
SF2016/5	17 to 13	20 to 16	23	32	5
SF2512/5	22 to 10	25 to 12	23	42	5
SF2516/5	22 to 13	25 to 16	23	42	5
SF2520/5	22 to 17	25 to 20	23	42	5

Kits contain: 1 x Reducer Seal & 1 x Cap Nut.
Not Compatible with Threadconnect 'T' Piece – Locking.

Conduit & Conduit Fittings

Hinged 'T' & 'Y' Fittings

- Compatible with PA6, PPmod Lockable or PP Split conduit.
- Snap-lock clips for quick & easy assembly.
- Selected models feature mounting slot compatible with Mounting Clips – see page 29.
- Wide range of sizes.
- Reducers available for more size options – see page 29.
- Made in Europe.

9806097/10



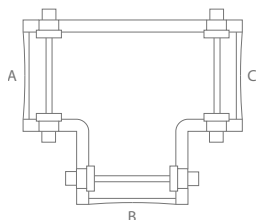
9817203/10



Material : Polyamide 66 (PA66)
 Ingress Protection : IP54
 Operating Temperature : -40°C to 135°C

Made in Europe

IP54



Most Hinged Fittings feature a mounting slot. Used with ST-CLIP page 29



9806090/10



T-Piece

Part No.	NW - A-B-C	NC - A-B-C	Mounting Slot	Pack Qty
9806082/10	7.5 - 7.5 - 7.5	8 - 8 - 8	Yes	10
9806088/10	8.5 - 8.5 - 10	10 - 10 - 12	Yes	10
9806086/10	10 - 8.5 - 10	12 - 10 - 12	Yes	10
9806089/10	10 - 10 - 10	12 - 12 - 12	Yes	10
9806090/10	13 - 8.5 - 10	16 - 10 - 12	Yes	10
9806091/10	13 - 10 - 10	16 - 12 - 12	Yes	10
9806092/10	13 - 7.5 - 13	16 - 8 - 16	Yes	10
9806093/10	13 - 13 - 7.5	16 - 16 - 8	Yes	10
9806096/10	17 - 13 - 13	20 - 16 - 16	Yes	10
9806095/10	17 - 7.5 - 17	20 - 8 - 20	Yes	10
9806099/10	17 - 17 - 7.5	20 - 20 - 8	Yes	10
9806196/10	17 - 17 - 17	20 - 20 - 20	Yes	10



Conduit & Conduit Fittings



9806131/10

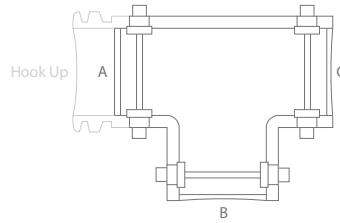


Fig 1

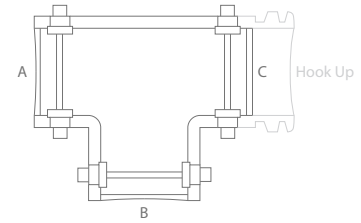


Fig 2

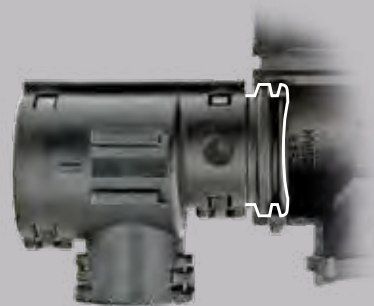
T-Piece – Hook Up

Part No.	NW – A-B-C	NC – A-B-C	Hook Up	Mounting Slot	Pack Qty	Fig
9806130/10	10 – 7.5 – 7.5	12 – 8 – 8	A	No	10	1
9806131/10	13 – 10 – 10	16 – 12 – 12	A	Yes	10	1
9806133/10	8.5 – 8.5 – 8.5	10 – 10 – 10	C	Yes	10	2
9806111/10	10 – 7.5 – 10	12 – 8 – 12	C	Yes	10	2
9806111/100	10 – 7.5 – 10	12 – 8 – 12	C	Yes	100	2
9806160/10	10 – 10 – 7.5	12 – 12 – 8	C	Yes	10	2
9806138/10	10 – 10 – 10	12 – 12 – 12	C	Yes	10	2
9806138/100	10 – 10 – 10	12 – 12 – 12	C	Yes	100	2
9806127/10	13 – 4.5 – 10	16 – 6 – 12	C	Yes	10	2
9806158/10	13 – 7.5 – 13	16 – 8 – 16	C	Yes	10	2
9806118/10	13 – 8.5 – 13	16 – 10 – 16	C	Yes	10	2
9806172/10	13 – 10 – 7.5	16 – 12 – 8	C	Yes	10	2
9806104/10	13 – 13 – 10	16 – 16 – 12	C	Yes	10	2
9806159/10	13 – 13 – 7.5	16 – 16 – 8	C	Yes	10	2
9806101/10	13 – 10 – 13	16 – 12 – 16	C	Yes	10	2
9806115/10	13 – 13 – 13	16 – 16 – 16	C	Yes	10	2
9806115/100	13 – 13 – 13	16 – 16 – 16	C	Yes	100	2

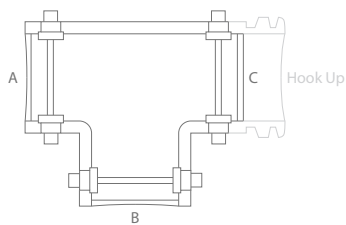
Create Manifold Using Hook Up Outlet

Most Hinged Fittings feature a single outlet with a protruding ridged ring used to "hook up" with other Hinged Fittings creating manifolds.

This ridged ring simulates a piece of corrugated conduit allowing other Hinged Fittings, the next size up, to securely clamp down around it.



Conduit & Conduit Fittings



9806121/10

T-Piece – Hook Up *cont.*

Part No.	NW – A–B–C	NC – A–B–C	Hook Up	Mounting Slot	Pack Qty
9806137/10	17 – 7.5 – 17	20 – 8 – 20	C	Yes	10
9806120/10	17 – 8.5 – 17	20 – 10 – 20	C	Yes	10
9806136/10	17 – 10 – 17	20 – 12 – 20	C	Yes	10
9806107/10	17 – 10 – 13	20 – 12 – 16	C	Yes	10
9806100/10	17 – 7.5 – 13	20 – 8 – 16	C	Yes	10
9806166/10	17 – 13 – 13	20 – 16 – 16	C	Yes	10
9806167/10	17 – 17 – 7.5	20 – 20 – 8	C	Yes	10
9806141/10	17 – 13 – 17	20 – 16 – 20	C	Yes	10
9806135/10	17 – 22 – 17	20 – 25 – 20	C	Yes	10
9806103/10	22 – 17 – 13	25 – 20 – 16	C	Yes	10
9806126/10	22 – 22 – 17	25 – 25 – 20	C	No	10
9806114/10	22 – 13 – 17	25 – 16 – 20	C	No	10
9806113/10	22 – 7.5 – 22	25 – 8 – 25	C	No	10
9806149/10	22 – 8.5 – 22	25 – 10 – 25	C	No	10
9806143/10	22 – 10 – 10	25 – 12 – 12	C	No	10
9806121/10	22 – 10 – 22	25 – 12 – 25	C	No	10
9806108/10	22 – 13 – 22	25 – 16 – 25	C	No	10
9806108/100	22 – 13 – 22	25 – 16 – 25	C	No	100
9806102/10	22 – 22 – 22	25 – 25 – 25	C	No	10
9806124/10	26 – 17 – 13	30 – 20 – 16	C	No	10
9806112/10	26 – 22 – 22	30 – 25 – 25	C	No	10
9806110/10	26 – 26 – 22	30 – 30 – 25	C	No	10
9806129/10	26 – 10 – 26	30 – 12 – 30	C	No	10
9806146/10	26 – 17 – 26	30 – 20 – 30	C	No	10



Conduit & Conduit Fittings

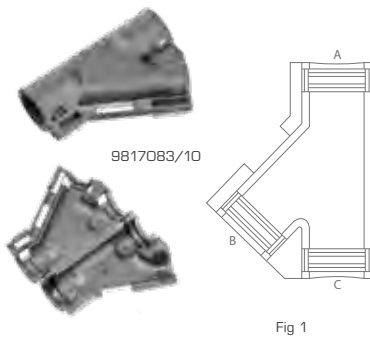


Fig 1

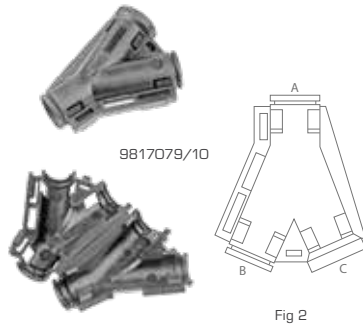


Fig 2

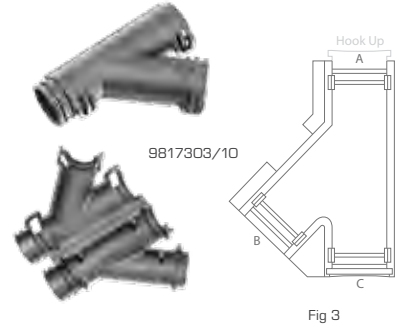


Fig 3



Fig 4

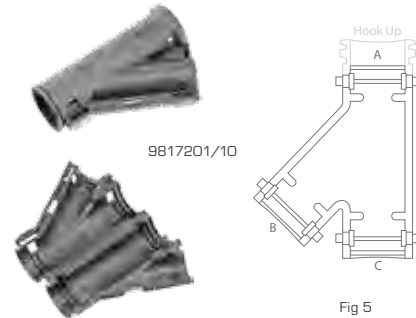


Fig 5

Y-Piece

Part No.	NW - A-B-C	NC - A-B-C	Hook Up	Mounting Slot	Pack Qty	Fig
9817083/10	7.5 - 4.5 - 7.5	8 - 6 - 8	—	Yes	10	1
9817079/10	7.5 - 7.5 - 7.5	8 - 8 - 8	—	Yes	10	2
9817079/100	7.5 - 7.5 - 7.5	8 - 8 - 8	—	Yes	100	2
9817303/10	10 - 10 - 10	12 - 12 - 12	A	Yes	10	3
9817303/100	10 - 10 - 10	12 - 12 - 12	A	Yes	100	3
9817304/10	13 - 7.5 - 10	16 - 8 - 12	C	Yes	10	4
9817306/10	13 - 10 - 10	16 - 12 - 12	C	Yes	10	4
9817305/10	13 - 10 - 13	16 - 12 - 16	C	Yes	10	4
9817305/100	13 - 10 - 13	16 - 12 - 16	C	Yes	100	4
9817308/10	13 - 13 - 13	16 - 16 - 16	C	Yes	10	4
SM200812/10	17 - 7.5* - 10	20 - 8* - 12	C	Yes	10	4
9817310/10	17 - 13 - 10	20 - 16 - 12	C	Yes	10	4
9817310/100	17 - 13 - 10	20 - 16 - 12	C	Yes	100	4
9817309/10	17 - 17 - 10	20 - 20 - 12	C	Yes	10	4
9817201/10	17 - 13 - 17	20 - 16 - 20	A	No	10	5
9817201/100	17 - 13 - 17	20 - 16 - 20	A	No	100	5
9817200/10	22 - 10 - 17	25 - 12 - 20	A	No	10	5
9817203/10	22 - 13 - 17	25 - 16 - 20	A	No	10	5
9817202/10	22 - 17 - 17	25 - 20 - 20	A	No	10	5
9817034/10	22 - 10 - 22	25 - 12 - 25	C	No	10	4
9817311/10	22 - 13 - 22	25 - 16 - 25	C	No	10	4
9817302/10	22 - 22 - 22	25 - 25 - 25	C	No	10	4

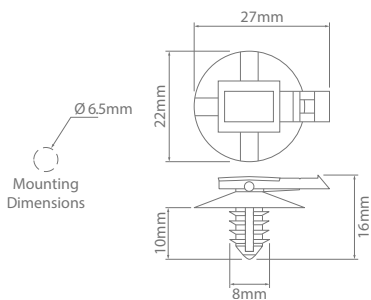
* Reducer supplied to achieve outlet size.

Conduit & Conduit Fittings



Hinged Fitting Reducers

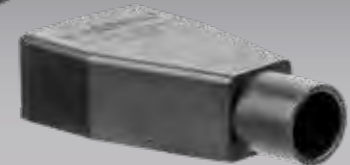
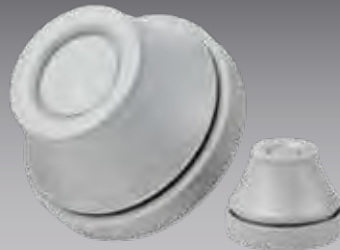
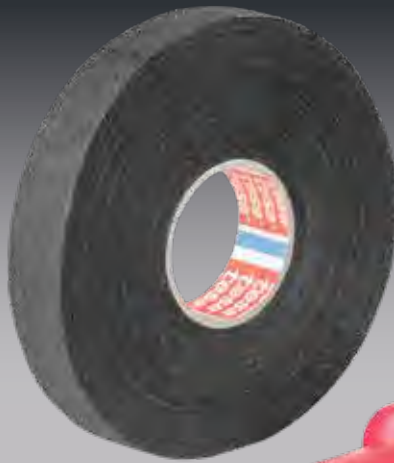
Part No.	NW Size Reduction	NC Size Reduction	Pack Qty	Fig
7807270/10	8.5 to 4.5	10 to 6	10	1
7807272/10	10 to 4.5	12 to 6	10	1
7807276/10	10 to 7.5	12 to 8	10	1
7807288/10	10 to 8.5	12 to 10	10	2
7807278/10	13 to 7.5	16 to 8	10	1
7807280/10	13 to 10	16 to 12	10	1
7807296/10	17 to 13	20 to 16	10	2
7807290/10	22 to 7.5 & 7.5	25 to 8 & 8	10	3
7807294/10	22 to 13	25 to 16	10	2
7807282/10	22 to 17	25 to 20	10	1



Hinged Fitting Mounting Clips

Part No.	Description	Pack Qty
ST-CLIP/10	'Christmas Tree' clip	10





Hygroscopic Cable Ties

Nylon cable ties are hygroscopic – meaning they absorb and release water as the atmosphere changes.

Understanding this characteristic is important, especially in winter months when conditions may be not only cold but also dry. If you are having trouble with cable ties becoming brittle or breaking when tension is applied, it will most likely be because of a lack of moisture content.

A moisture content of 2.5% allows for flexibility and easy bending of the straps. When moisture in the product is below 1%, they can become brittle.

To ensure your cable ties are in optimal condition, always keep them stored in a sealed bag to help retain their moisture content.



IONNIC has a wide range of Cable Ties in Natural and UV resistant black nylon. See page 34 for the full range.



Fitting Accessories

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Fitting Accessories

Grommets, Bushings & Glands



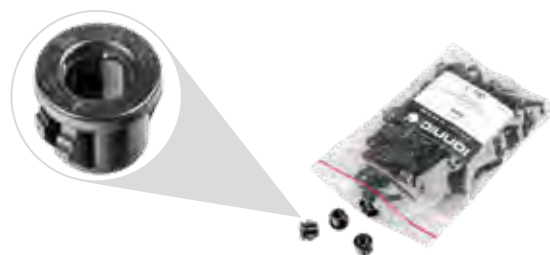
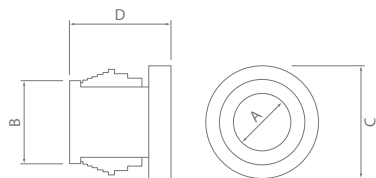
- Quick and simple cable retention without the use of tools.
- Acts as a strain relief.
- Cable Gland Kits are sealed to IP68 when installed to manufacturer's specifications.



Cable Grommets

Pack Qty - 5	Pack Qty - 10	Pack Qty - 25	Pack Qty - 50	Cable Ø A (mm)	Cutout Ø B (mm)	C (mm)	D (mm)
—	RG1-12/10	—	RG1-12/50	4 - 7	12.5	12.6	20
—	RG1-16/10	—	RG1-16/50	5 - 8	16	17.8	21
—	RG1-19/10	—	RG1-19/50	7 - 10	19	19.8	24
—	RG1-23/10	—	RG1-23/50	10 - 14	23	21.6	28
RG1-29/5	—	RG1-29/25	—	14 - 20	29	24.6	35
RG1-38/5	—	RG1-38/25	—	20 - 26	38	28.5	46
—	RG1-48/10	—	—	26 - 35	48	34.9	58

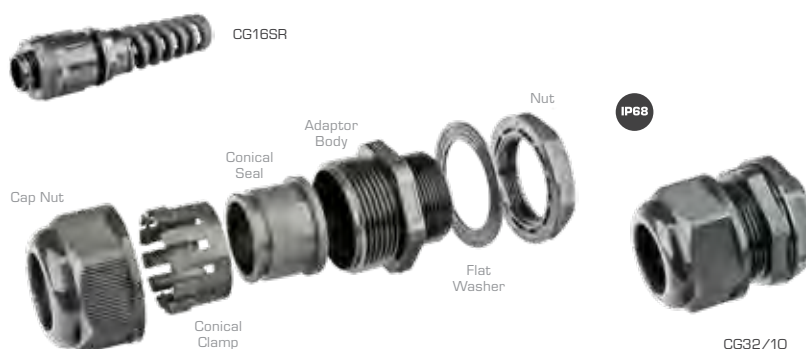
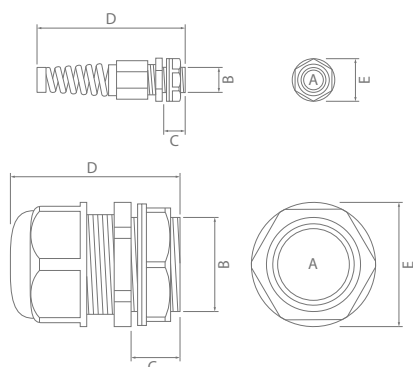
Fitting Accessories



SB10/100

Snap Bushings

Pack Qty - 100	Cable Ø A (mm)	Mounting Hole Ø B (mm)	C (mm)	D (mm)
SB08/100	5.8	7.9	10.5	8.0
SB10/100	6.4	9.5	12.0	10.3
SB13/100	8.0	12.7	15.0	10.3
SB14/100	11.4	14.3	17.0	10.3
SB16/100	12.7	15.9	18.6	10.3
SB22/100	17.5	22.2	24.2	11.5



Cable Gland Kits

Pack Qty - 1	Pack Qty - 10	Clamping Range A (mm)	Thread Size (B & C)	D (mm)	E (mm)
CG12	CG12/10	2.5 - 6.5	M12 x 8mm	30	19
CG16	CG16/10	3.5 - 10	M16 x 15mm	45	25
CG16SR	—	4 - 8	M16 x 15mm	90	25
CG20	CG20/10	7 - 14	M20 x 15mm	48	29
CG25	CG25/10	9 - 18	M25 x 15mm	51	36
CG32	CG32/10	14 - 25	M32 x 15mm	55	46
CG40	—	18 - 32	M40 x 16mm	65	59
CG50	—	24 - 38	M50 x 16mm	72	67
CG63	—	35 - 48	M60 x 16mm	67	80

Cable Gland Kits are sealed to IP68 when installed to manufacturer's specifications.

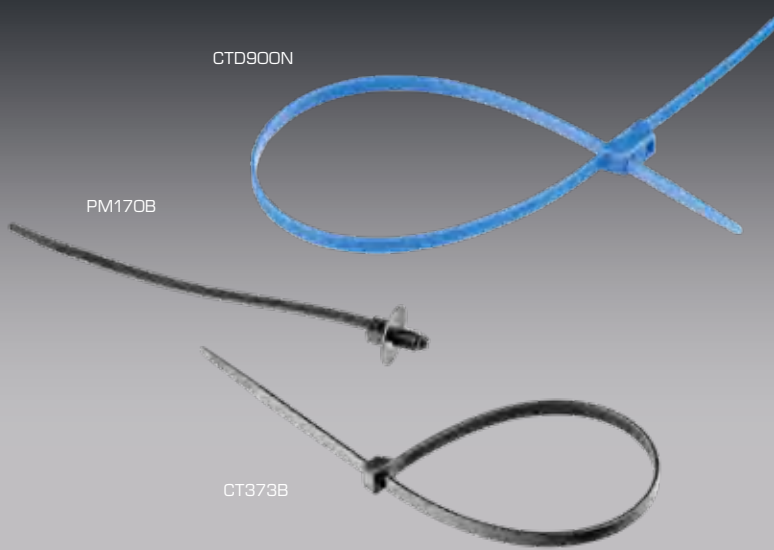
Kits contain:

- 1 x Adaptor Body
- 1 x Conical Seal
- 1 x Conical Clamp
- 1 x Cap Nut
- 1 x Flat Washer
- 1 x Nut



Fitting Accessories

Cable Ties



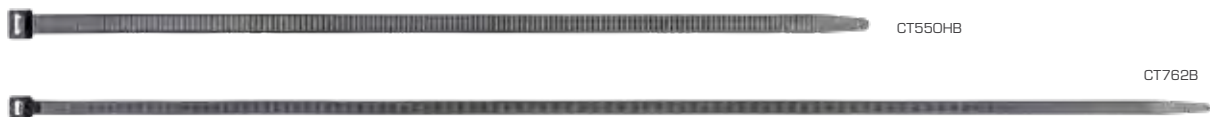
- Wide range of sizes available.
- UV resistant black nylon for extended cable tie life in outdoor environments.
- Mounting accessories available.
- Dual models available.
- Releasable model available.

Material : Natural Nylon
 Black, Blue UV resistant Nylon
 Operating Temperature: -40°C to 85°C



Cable Ties – Standard Duty

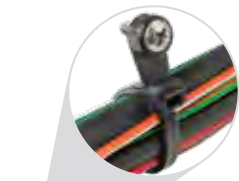
Colour		Dimensions (mm)	Pack Qty
Black	Natural		
CT102B	CT102	100 x 2.5	100
CT143B	CT143	142 x 3.2	100
CT194B	CT194	190 x 4.8	100
CT200B	—	203 x 7.6	100
CT280B	CT280	280 x 4.8	100
CT300B	—	300 x 7.6	100
CT292B	—	295 x 3.6	100
CT370B	—	368 x 4.8	100
CT373B	—	370 x 7.6	100
CT432B	—	432 x 4.8	100



Cable Ties – Heavy Duty

Colour – Black	Dimensions (mm)	Pack Qty
CT550HB	550 x 12.7	100
CT533B	550 x 8.0	100
CT762B	762 x 9.0	100

Fitting Accessories



SM143B



SM194B

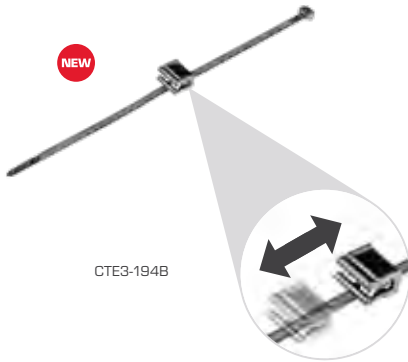
Zip release



PM170B



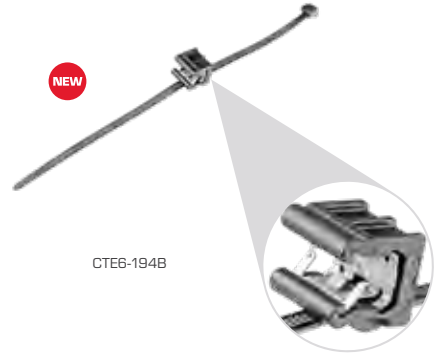
PM194B



CTE3-194B



CTE6-194B



Head can slide up and down tie on both edge mount models



IT102

Identification ties can be written on using permanent markers



CTD490B



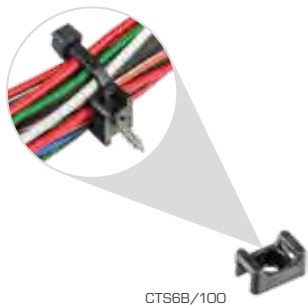
CTD900N

Cable Ties – Specialty

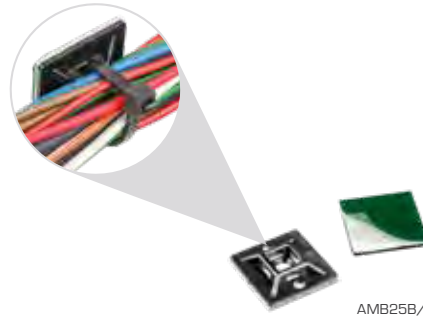
Part No.	Description	Dimensions (mm)	Colour	Pack Qty
SM143B	Screw mount – Ø4mm hole	155 x 3.7	Black	100
SM194B	Screw mount – Ø5.5mm hole	200 x 4.2	Black	100
PM170B	Push mount – Ø7mm hole. Releasable zip	170 x 4.8	Black	100
PM194B	Push mount – Ø6.2mm hole	200 x 4.8	Black	100
CTE3-194B	Edge mount – suits 1–3mm edge thickness	200 x 4.8	Black	25
CTE6-194B	Edge mount – suits 3–6mm edge thickness	200 x 4.8	Black	25
IT102	Identification Tie	100 x 2.5	Natural	100
CTD490B	Dual clamp 'handcuff'. Screw mount – Ø5.5mm hole	489 x 12.7	Black	10
CTD900N	Dual clamp 'handcuff'	900 x 8.0	Blue	10



Fitting Accessories



CTS6B/100



AMB25B/100



HT-34

Cable Ties – Accessories

Part No.	Description	Dimensions (mm)	Colour	Max. Cable Tie Width (mm)	Pack Qty
CTS6B/100	Cable Tie Mount	15 x 10	Black	5.1	100
CTS8B/100	Cable Tie Mount	23 x 16	Black	9	100
AMB19B/100	Cable Tie Mount – Adhesive	21.8 x 21.8	Black	4.8	100
AMB25B/100	Cable Tie Mount – Adhesive	26.3 x 26.3	Black	5.6	100
HT-34	Cable Tie Gun Heavy Duty – Metal. Cuts 2.5mm – 4.8mm width				1

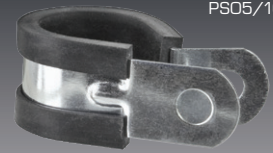
Fitting Accessories

Clips & Clamps

- Easy & secure one screw mounting option for one or multiple cables, conduit, hoses etc.
- High corrosion resistance.
- Clips available in stainless steel, electronically galvanised steel and light & heavy duty plastic.
- Heavy Duty Hose Support Clamps feature 10mm mounting hole.
- Wide range of sizes available.



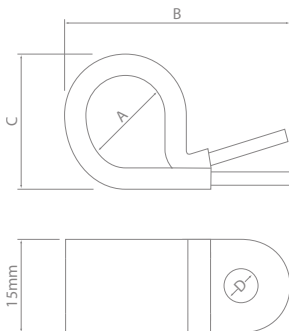
PSPHD09/10



PS05/10



8211035/10



PSP0.5/10



PSP05/10

Hose Support Clamps – Plastic Coated

Part No.	A (mm)	B (mm)	C (mm)	D (mm)	Pack Qty
PSP0.25/10	6	25	9	6.5	10
PSP0.5/10	8	28	12	6.5	10
PSP01/10	10	30	15	6.5	10
PSP02/10	13	34	17	6.5	10
PSP03/10	16	38	21	6.5	10
PSP04/10	19	42	23	6.5	10
PSP05/10	22	44	26	6.5	10
PSP06/10	27	52	30	6.5	10
PSP07/10	32	55	36	6.5	10
PSP08/10	35	60	38	6.5	10
PSP09/10	40	67	43	6.5	10
PSP10/10	45	76	47	6.5	10
PSP11/10	50	80	52	6.5	10
PSP12/10	55	87	57	6.5	10



Fitting Accessories

SAE 304 Stainless Steel

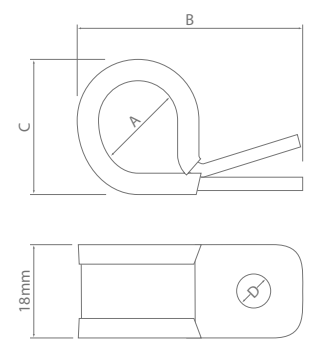


PSS04/10

NEW

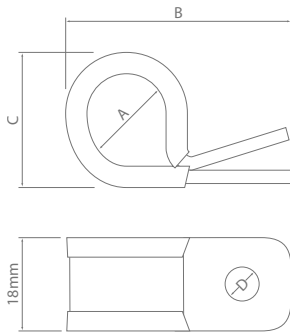


PSS12/10



Hose Support Clamps – Rubber Lined – Stainless Steel NEW

Part No.	A (mm)	B (mm)	C (mm)	D (mm)	Pack Qty
PSS0.25/10	6	29	14	6.5	10
PSS0.5/10	8	33	17	6.5	10
PSS01/10	10	38	19	6.5	10
PSS02/10	13	40	20	6.5	10
PSS03/10	16	44	22	6.5	10
PSS04/10	19	47	25	6.5	10
PSS05/10	22	48	28	6.5	10
PSS06/10	27	56	32	6.5	10
PSS07/10	32	64	36	6.5	10
PSS08/10	35	64	40	6.5	10
PSS09/10	40	70	45	6.5	10
PSS10/10	45	86	46	7	10
PSS11/10	50	86	52	7	10
PSS12/10	55	94	55	7	10
PSS13/10	60	96	62	7	10



PS08/10



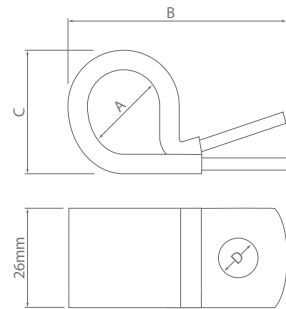
PS01/10

Hose Support Clamps – Rubber Lined

Part No.	A (mm)	B (mm)	C (mm)	D (mm)	Pack Qty
PS0.25/10	6	29	14	6.5	10
PS0.5/10	8	33	17	6.5	10
PS01/10	10	38	19	6.5	10
PS02/10	13	40	20	6.5	10
PS03/10	16	44	22	6.5	10
PS04/10	19	47	25	6.5	10
PS05/10	22	48	28	6.5	10
PS06/10	27	56	32	6.5	10
PS07/10	32	64	36	6.5	10
PS08/10	35	64	40	6.5	10
PS09/10	40	70	45	6.5	10
PS10/10	45	86	46	7	10
PS11/10	50	86	52	7	10
PS12/10	55	94	55	7	10
PS13/10	60	96	62	7	10
PS14/10	66	99	71	7	10
PS15/10	76	103	78	7	10

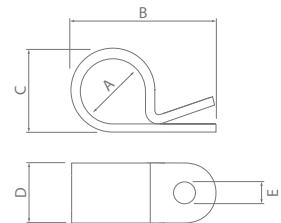


Fitting Accessories



Hose Support Clamps – Heavy Duty – Plastic Coated

Part No.	A (mm)	B (mm)	C (mm)	D (mm)	Pack Qty
PSPHD0.5/10	10	48	16	10	10
PSPHD00/10	12	50	18	10	10
PSPHD01/10	14	52	20	10	10
PSPHD02/10	16	54	22	10	10
PSPHD03/10	18	56	24	10	10
PSPHD04/10	20	64	26	10	10
PSPHD05/10	22	66	28	10	10
PSPHD06/10	24	68	30	10	10
PSPHD07/10	26	71	32	10	10
PSPHD08/10	28	73	34	10	10
PSPHD09/10	30	76	36	10	10
PSPHD10/10	32	78	38	10	10
PSPHD11/10	34	78	38	10	10
PSPHD12/10	36	82	42	10	10
PSPHD13/10	38	85	44	10	10
PSPHD14/10	40	87	45	10	10
PSPHD15/10	42	89	47	10	10
PSPHD16/10	44	92	51	10	10
PSPHD17/10	46	94	53	10	10
PSPHD18/10	48	96	54	10	10



'P' Clamps – Light Duty

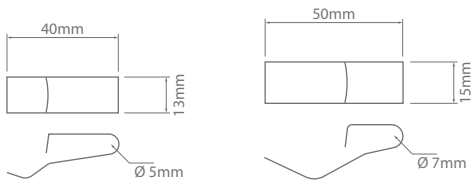
Part No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Pack Qty
PSN0.5/100	5	19	7	10	5.3	100
PSN01/100	6.4	21	8	10	5.3	100
PSN01.5/100	7.2	23	10	10	5.3	100
PSN02/100	9.5	27	13	13	5.3	100
PSN03/100	12.7	30	14	13	5.3	100
PSN04/100	15.8	35	18	13	5.3	100

Fitting Accessories



'P' Clamps – Heavy Duty – Polyacetal Resin

Part No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Pack Qty
8211060/10	5.7 – 6.3	28	10	16	6.6	10
8211094/10	8.6 – 9.3	30	14	16	6.6	10
8211108/10	9.5 – 10.3	32	15	16	6.6	10
8211124/10	11.5 – 12.3	34	17	16	6.6	10
8211000/10	12.3 – 13.3	36	18	16	6.6	10
8211035/10	15.5 – 16.3	38	21	16	6.6	10
8211019/10	21.4 – 22.3	47	27	19	6.6	10
8211027/10	24.4 – 25.3	58	32	23	8.6	10



9621/10



9622/10



BHS80

Clips & Clamps

Part No.	Description	Pack Qty
9621/10	Chassis Clips – Medium	10
9622/10	Chassis Clips – Large	10
BHS80	Battery Clamp – 7" bolts. Up to 175mm wide	1
BHS81	Battery Clamp – 5.5" bolts. Up to 135mm wide	1

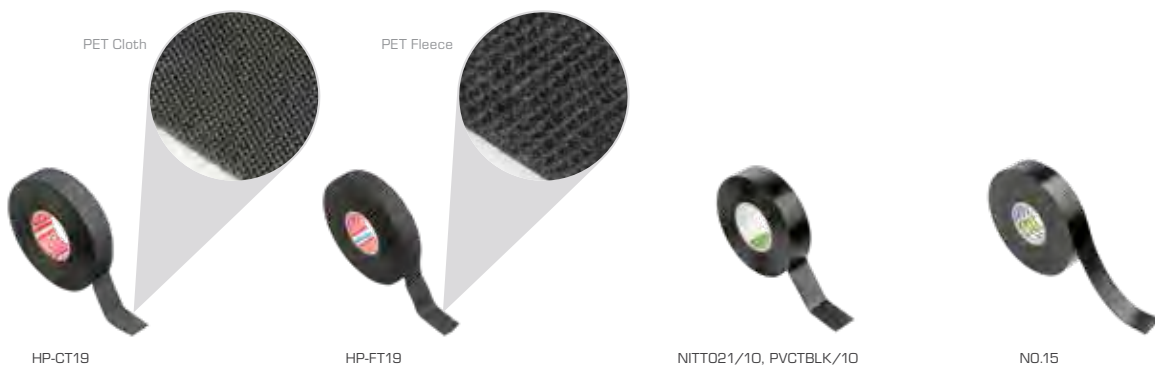


Fitting Accessories

Electrical Tape



- Chemical, weather and heat resistant.
- Excellent electrical insulation.
- PET cloth for high abrasion and temperature resistance – 150°C.
- PET fleece tape for flexibility and noise damping. Typical use in-cab.
- NO.15 self-fuses creating a seamless waterproof insulating layer.



Electrical Tape

Part No.	Material	Length (m)	Width (mm)	Thickness (mm)	Colour	Elongation	Pack Qty
HP-CT19	PET Cloth	25	19	0.26	Black	40%	1
HP-FT19	PET Fleece	25	19	0.28	Black	20%	1
NITTO21/10	PVC	20	19	0.2	Black	240%	10
PVCTBLK/10	PVC	20	19	0.19	Black	276%	10
NO.15	Self-fusing Butyl Rubber	10	19	0.5	Black	530%	1

- Efficient, professional cable marking system.
- Supplied with everything needed to tag wiring.
- Handy dispenser case allows quick and easy selection of markers using supplied tools.
- Component reference chart included.



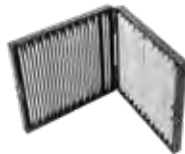
37994

Cable Range : 0.25mm² – 16mm²

Coloured markers also available, for details contact your nearest reseller 1800 724 690



37994, 37999



Dispenser Board filled with markers



Markers



Marker Holders



Selecting Prongs



Extractor Tool

Mémocab Marking System Kits

Part No.	Description
37994	Starter Kit

Kit Contains:

- 1 x Dispenser Board (37991)
- 3 x Selecting Prongs (37989, 37990, 37992)
- 1 x Extractor Tool (37993)
- 50 x 0.25–1.5mm² Marker Holders (37930)
- 50 x 0.75–4mm² Marker Holders (37931)
- 50 x 4–16mm² Marker Holders (37932)
- 4 x "0–9" Markers
- 1 x "A–Z" Markers
- 1 x "/", "+", "-" Markers

Part No.	Description
37999	Marking Kit

Kit Contains:

- 1 x Dispenser Board (37991)
- 2 x Selecting Prongs (37990, 37992)
- 1 x Extractor Tool (37993)
- 50 x 0.25–1.5mm² Marker Holders (37936)
- 50 x 0.75–4mm² Marker Holders (37937)
- 50 x 4–16mm² Marker Holders (37938)

Individual marker characters available separately. See component reference chart inside case for listing.



Fitting Accessories

Terminal Insulators

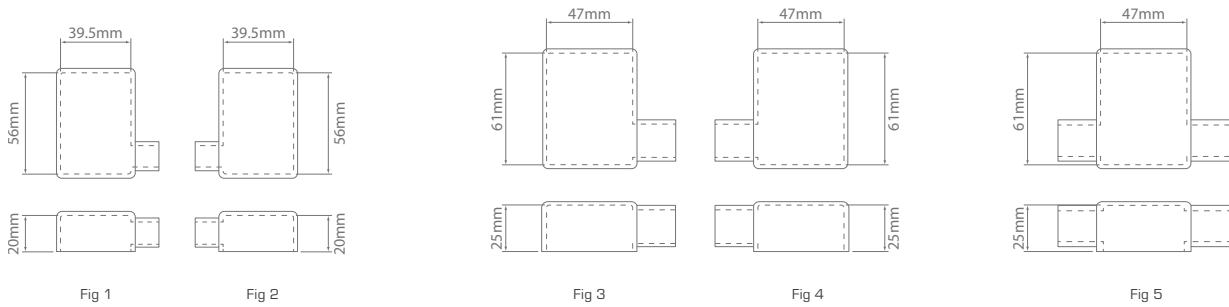


- Protect terminals from electrical shorts and shocks.
- Colour coded for easy pole identification.
- Wide range of sizes & styles available.
- 200 Series feature finger tab for easy remove.
- Bulk packs available for entire range.
- Made in North America.

Made in North America

Material :
Burning Behaviour :
Max. Operating Temperature :

Flexible PVC
UL94V2
105°C



SY2906-RED
(Right hand)



SY2914-BLK
(Left hand)

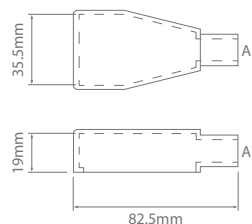


SY2915-RED
(Double)

Battery Terminal Insulators

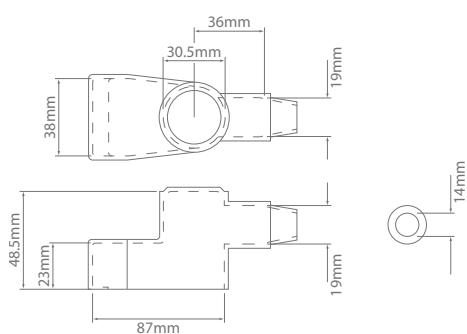
Red	Black	Pack Qty	Post Height (mm)	Cable Ø (mm)	Cable Entry	Material Thickness (mm)	Fig
SY2906-RED	SY2906-BLK	1	20	12.5	Right Hand	1.5	1
SY2906R/100	SY2906B/100	100					
SY2910-RED	SY2910-BLK	1	20	12.5	Left Hand	1.5	2
SY2910R/100	SY2910B/100	100					
SY2912-RED	SY2912-BLK	1	25	17.5	Right Hand	2.3	3
SY2912R/100	SY2912B/100	100					
SY2914-RED	SY2914-BLK	1	25	17.5	Left Hand	2.3	4
SY2914R/100	SY2914B/100	100					
SY2915-RED	SY2915-BLK	1	25	17.5	Double	2.3	5
SY2915R/100	SY2915B/100	100					

Fitting Accessories



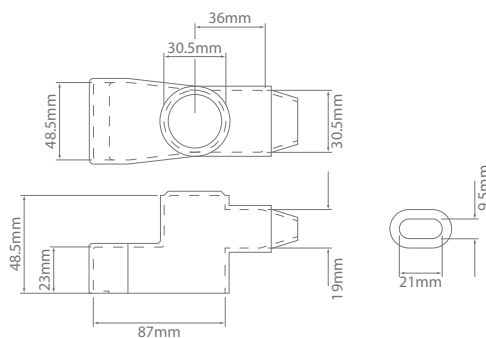
Battery Terminal Insulators – Straight Leads

Red	Black	Pack Qty	Post Height (mm)	Cable Ø A (mm)	Material Thickness (mm)
SY2917-RED	SY2917-BLK	1	19	12.5	2.3
SY2917R/100	SY2917B/100	100			
SY2919-RED	SY2919-BLK	1	19	16	2.3
SY2919R/100	SY2919B/100	100			



SY2990

Fig 1



SY2995

Fig 2

Battery Terminal Insulators

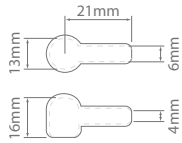
Red	Black	Pack Qty	Terminal Ø (mm)	Post Height (mm)	Material Thickness (mm)	Fig
SY2990-RED	SY2990-BLK	1	30.5	23	2	1
SY2990R/100	SY2990B/100	100				
SY2995-RED	SY2995-BLK	1	30.5	23	2	2
SY2995R/100	SY2995B/100	100				



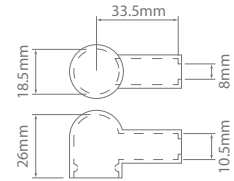
Fitting Accessories



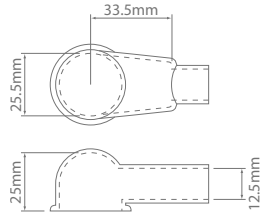
SY2900



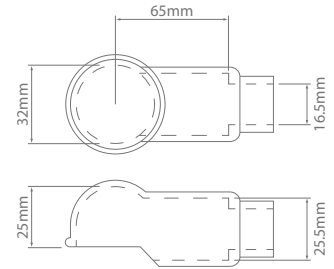
SY2980



SY2982

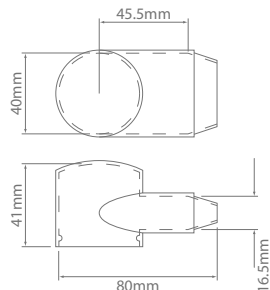


SY2984



Terminal Insulators – Lug & Ring

Red	Black	Pack Qty	Terminal Ø (mm)	Post Height (mm)	Terminal Length (mm)	Inside Grip (mm)	Cable Ø (mm)	Material Thickness (mm)
SY2900-RED	SY2900-BLK	1	13	16	21	6	4-6	1
SY2900R/100	SY2900B/100	100						
SY2980-RED	SY2980-BLK	1	18.5	26	33.5	10.5	8	1.5
SY2980R/100	SY2980B/100	100						
SY2982-RED	SY2982-BLK	1	25.5	25	33.5	12.5	12.5	1.5
SY2982R/100	SY2982B/100	100						
SY2984-RED	SY2984-BLK	1	32	25	65	25.5	16.5	2.5
SY2984R/100	SY2984B/100	100						

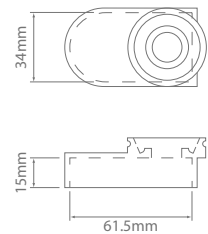


SY2999-RED



SY2998-RED

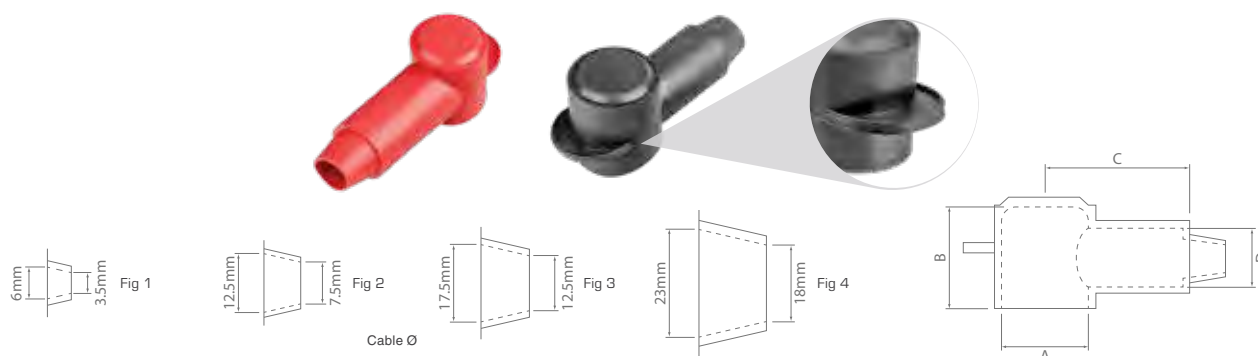
SY2998-RED



Terminal Insulators – Lug & Ring – Marine

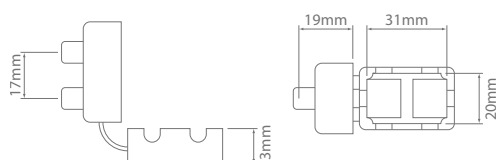
Red	Black	Pack Qty	Terminal Ø (mm)	Post Height (mm)	Terminal Length (mm)	Material Thickness (mm)
SY2999-RED	SY2999-BLK	1	40	41	58.5	1.5
SY2999R/100	SY2999B/100	100				
SY2998-RED	SY2998-BLK	1	Base for use with SY2999			2.5

Fitting Accessories



Terminal Insulators – Lug & Ring – 200 Series

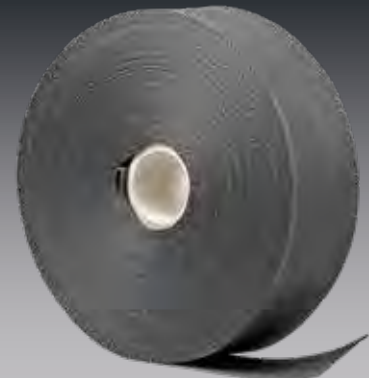
Red	Black	Pack Qty	Terminal Ø A (mm)	Post Height B (mm)	Terminal Length C (mm)	Inside Grip D (mm)	Cable Ø Fig	Material Thickness (mm)
SY2959-RED	SY2959-BLK	1	12	18	25.5	12.5	1	1.5
SY2959R/100	SY2959B/100	100						
SY2960-RED	SY2960-BLK	1	14	19	25.5	12.5	1	1.5
SY2960R/100	SY2960B/100	100						
SY2963-RED	SY2963-BLK	1	16	20.5	25.5	12.5	2	1.5
SY2963R/100	SY2963B/100	100						
SY2965-RED	SY2965-BLK	1	18	22	25.5	12.5	2	1.5
SY2965R/100	SY2965B/100	100						
SY2966-RED	SY2966-BLK	1	20	24	33.5	18	3	1.8
SY2966R/100	SY2966B/100	100						
SY2968-RED	SY2968-BLK	1	22	26.5	44.5	19	3	1.8
SY2968R/100	SY2968B/100	100						
SY2971-RED	SY2971-BLK	1	26	32	52.5	18	3	2
SY2971R/100	SY2971B/100	100						
SY2970-RED	SY2970-BLK	1	28	33.5	44.5	19	3	2.3
SY2970R/100	SY2970B/100	100						
SY2973-RED	SY2973-BLK	1	32	38	44.5	23	3	2.5
SY2973R/100	SY2973B/100	100						
SY2974-RED	SY2974-BLK	1	32	38	60.5	23	3	2.5
SY2974R/100	SY2974B/100	100						
SY2975-RED	SY2975-BLK	1	32	38	44.5	23	4	2.5
SY2975R/100	SY2975B/100	100						

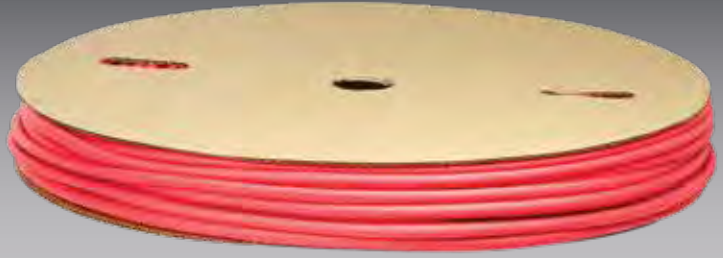


Terminal Insulators – 121/123 Series Circuit Breakers

Red	Black	Pack Qty
CB121BOOT-RED	CB121BOOT-BLK	1
CB121R/10	CB121B/10	10
CB121R/100	CB121B/100	100







Sleeving

ION-Guard – Expandable 50

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Spiral Wrap 57

Heatshrink – Standard Wall 58

Heatshrink – Diesel Resistant 61

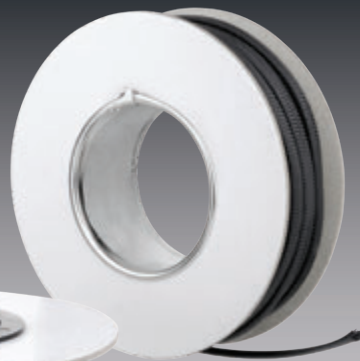
Heatshrink – Adhesive Lined 62

Sleeving

ION-Guard – Expandable

NEW

SSX-006



SSW-016

- Expandable and easy to apply over irregular shapes.
- Wide range of materials & sizes available.
- Broad operating temperatures.
- All supplied in 25m rolls.
- Open weave construction allows for complete drainage, excludes Guard-Sleeve.

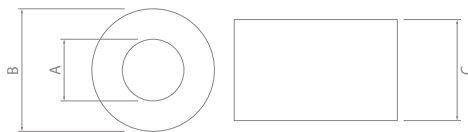
Approvals :
Roll Lengths :

RoHS
25m

Continuous lengths can not be guaranteed due to manufacturing limitations.



SSZ-016



ION-Guard™

Material : Polyester
 Approvals : UL, RoHS, REACH, Halogen Free
 Cutting Tool : Hot Knife
 Melting Point : 240 ±10°C
 Flammability : VW-1
 Operating Temperature : -50°C to 150°C

Industry
Standard

Polyester expandable braided sleeving is flame retardant and halogen-free. It offers durable abrasion resistance in a wide range of industrial applications. The open weave construction of the expandable range allows for easy installation over hoses and cables, including with bulky or large connectors.

Totally expanded the sleeving can reach at least 1.5 times the initial dimension.

Guard-Flex NEW

Roll Length – 25m	Roll Length – 100m	Expanded Range (mm)	
		A – B	C
SSZ-003	—	1 – 6	3
SSZ-006	SSZ-006-100	3 – 9	6
SSZ-008	SSZ-008-100	5 – 16	8
SSZ-010	—	7 – 19	10
SSZ-012	—	8 – 24	12
SSZ-016	—	10 – 27	16
SSZ-025	—	18 – 35	25
SSZ-032	—	20 – 50	32
SSZ-045	—	35 – 75	45

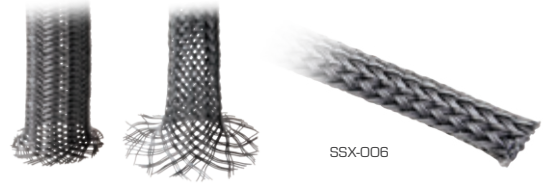
Material : Polyester
 Approvals : UL, RoHS
 Cutting Tool : Hot Knife, Scissors
 Melting Point : 240 ±10°C
 Flammability : VVW-1
 Operating Temperature : -50°C to 150°C

Anti-fraying

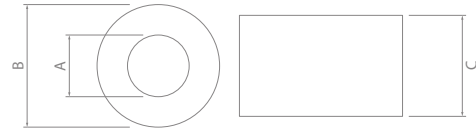
Cold Cut

With a softer finish polyester Guard-Flex allows cutting with common scissors without causing obvious fraying, this can be more convenient in situations where access to a hot knife may be limited.

It also provides the same excellent anti-abrasion protection as the standard Guard-Flex sleeving.



Cutting with common scissors does not cause obvious fraying



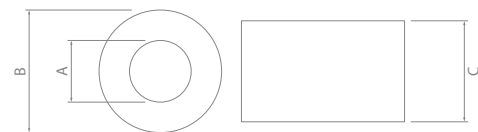
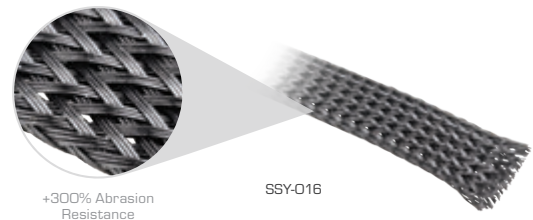
Guard-Flex – Anti-Fray NEW

Roll Length – 25m	Expanded Range (mm)	Normal Size (mm)
	A – B	C
SSX-003	1 – 5	3
SSX-006	3 – 8	6
SSX-008	5 – 10	8
SSX-012	8 – 14	12
SSX-016	10 – 18	16
SSX-025	18 – 28	25
SSX-032	20 – 35	32

Material : Polyester
 Approvals : UL, RoHS, REACH, Halogen Free
 Cutting Tool : Hot Knife
 Melting Point : 240 ±10°C
 Flammability : VVW-1
 Operating Temperature : -50°C to 150°C

+300%
Abrasion
Resistance

Featuring an abrasion resistance 300% more than standard polyester expandable sleeving. Ideal in situations where components are in particularly hazardous positions. Easy application whilst still providing exceptional mechanical protection. Totally expanded the sleeving can reach at least 1.5 times the initial dimension.

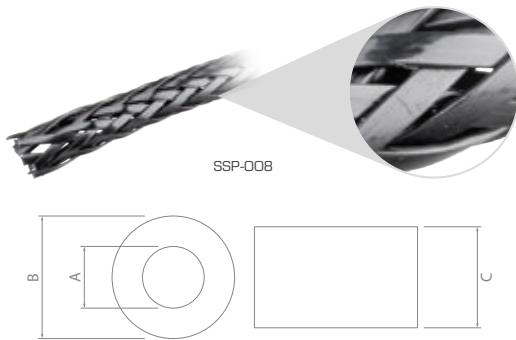


Guard-Gorilla – High Anti-Abrasion NEW

Roll Length – 25m	Roll Length – 100m	Expanded Range (mm)	Normal Size (mm)
		A – B	C
SSY-003	—	1 – 6	3
SSY-006	SSY-006-100	3 – 9	6
SSY-008	SSY-008-100	5 – 16	8
SSY-012	SSY-012-100	8 – 24	12
SSY-016	—	10 – 27	16
SSY-025	—	18 – 35	25
SSY-032	—	20 – 50	32



Sleeving



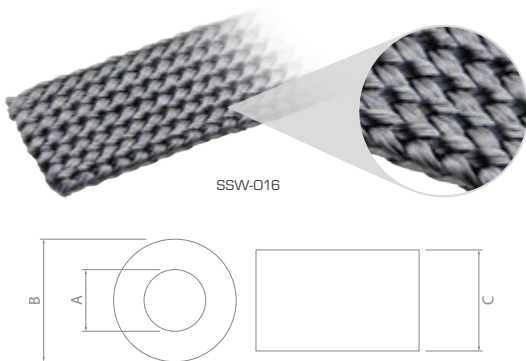
Material : Polyamide 6.6
 Approvals : RoHS
 Cutting Tool : Hot Knife
 Melting Point : 256 ±5°C
 Flammability : UL 94V-2
 Operating Temperature : -60°C to 160°C

Tough,
Wide
Filaments

Constructed from tough and resilient Nylon 6.6 flat filaments exceeding the durability of other plastic sleeving without losing the attractive look and flexibility. Uniquely shaped monofilament provides a firm and smooth surface reducing the chance of snags when dragged over rough objects.

Guard-Tough – Nylon Flat Filament NEW

Roll Length – 25m	Expanded Range (mm)	Normal Size (mm)
	A – B	C
SSP-006	4 – 9	6
SSP-008	5 – 12	8
SSP-012	9 – 16	12
SSP-019	16 – 25	19
SSP-032	25 – 42	32



Material : Polyamide
 Approvals : RoHS
 Cutting Tool : Hot Knife
 Melting Point : 230 ±10°C
 Flammability : UL 94V-2
 Operating Temperature : -60°C to 125°C

Tight Weave

Braided from tight woven nylon multifilament yarn, Guard-Sleeve is an excellent option to help protect and improve the appearance of wires and cables. Offering excellent flexibility, high abrasion resistance whilst protecting from acids and most alkalis.

Guard-Sleeve – Nylon Multifilament NEW

Roll Length – 25m	Expanded Range (mm)	Normal Size (mm)
	A – B	C
SSW-006	4 – 7	6
SSW-008	5 – 9	8
SSW-012	8 – 13	12
SSW-016	10 – 17	16
SSW-023	15 – 24	23



Accessories – Electric Knife

Part No.	Used with
HT-19	Guard-Flex, Guard-Gorilla, Guard-Sleeve, Guard-Wrap, Guard-Tough

- Withstands temperatures of up to 200°C.
- Increased dielectric resistance.
- Silicone coated, non-alkali fiberglass sleeving.
- Flame and abrasion resistant.
- Smooth finish with high flexibility.
- Ideal in applications where high or low temperature protection is required or high voltage installs.
- All supplied in 25m rolls.

NEW

ION-Guard – Guard-Shield



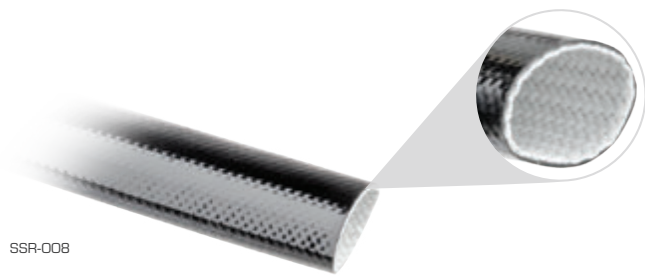
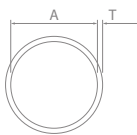
SSR-020

Sleeving Material : Fiberglass Fiber
 Coating Material : Silicone
 Approvals : UL, RoHS
 Cutting Tool : Scissors
 Breakdown Voltage : 4.0KV
 Flammability : VW-1
 Operating Temperature : -60°C to 200°C
 Roll Lengths : 25m

Continuous lengths can not be guaranteed due to manufacturing limitations.



ION-Guard™



SSR-008

Guard-Shield – High Temp **NEW**

Roll Length – 25m	Inside Ø (mm) A	Wall Thickness @ 4KV T
SSR-004	4	0.50 ±0.05
SSR-006	6	0.55 ±0.05
SSR-008	8	0.60 ±0.05
SSR-010	10	0.70 ±0.05
SSR-012	12	0.70 ±0.05
SSR-015	15	0.70 ±0.05
SSR-020	20	0.70 ±0.05
SSR-025	25	0.70 ±0.05



Sleeving

ION-Guard – Textile

NEW



SSV-008

SST-036

- Range of materials & sizes available.
- Broad operating temperatures.
- Tight textile weaves.
- All supplied in 25m rolls.

Specific ranges feature:

- Extremely flexible & easy to apply over irregular shapes
- Salt, oil, most fuels, solvent and abrasion resistant

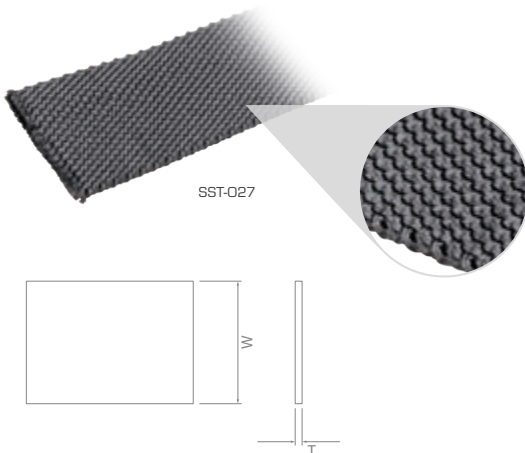
Approvals :
Roll Lengths :

RoHS
25m

Continuous lengths can not be guaranteed due to manufacturing limitations.



ION-Guard™



SST-027

Material : Polyamide
Approvals : RoHS, ISO 6945, MSHA
Cutting Tool : Scissors
Melting Point : 256 ±5°C
Wall Thickness : 1mm
Operating Temperature : -60°C to 125°C

Tight Weave

A soft but extremely tough textile sleeve made from a nylon multifilament. With its soft finish Guard-Weave is an ideal option for protecting componentry within, and surrounding, the sleeving. The tight woven construction provides excellent abrasion resistance and protection from hydraulic oil leaks and spills.

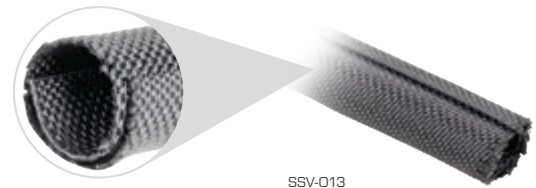
Guard-Weave **NEW**

Roll Length – 25m	Inside Ø (mm)	Flat Width (mm)		Wall Thickness (mm)
		W	T	
SST-027	17	27	1	
SST-036	23	36	1	
SST-042	27	42	1	

Material : Polyester Monofilament & Multifilament
Approvals : RoHS, Halogen Free
Cutting Tool : Hot Knife
Melting Point : 240 ±10°C
Flammability : DIN5510, BS6853
Operating Temperature : -50°C to 150°C

Self-closing

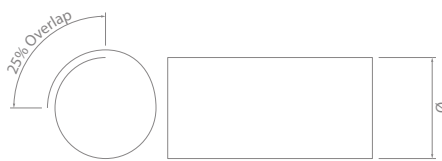
Self-closing sleeve is a non-expandable sleeving woven from monofilament and multifilament warped polyester. Guard-Wrap provides a lightweight, cost-effective and tough solution for the protection of a wide range of components. Its inherent flexibility allows it to bend, coil and conform to irregular shapes, while its open design allows it to be installed on completed assemblies.



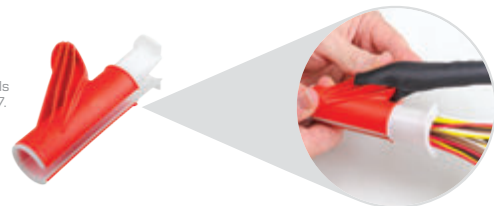
SSV-013



Open design allows easy installation or access to completed assemblies



For Cable Insertion Tools see page 157.



Guard-Wrap – Self-Closing Sleeving NEW

Roll Length – 25m	Inside Ø (mm)	Max. Bundle Ø (mm)
SSV-005	5	6
SSV-008	8	9
SSV-010	10	11
SSV-013	13	14
SSV-016	16	17
SSV-019	19	20
SSV-025	25	27

Material : Polyolefin & Polyester Multifilament
Approvals : RoHS, Halogen Free
Cutting Tool : Scissors
Shrink Temperature : 120°C
Shrink Ratio : 2:1
Operating Temperature : -40°C to 125°C

Heat Shrinkable

Heat shrinkable braided sleeving consist of a polyester multifilament and special modified polyolefin filament, it will shrink when appropriately heated. This unique woven construction makes Guard-Shrink extremely flexible and easy to install on hoses with irregular shapes. Suitable in rough environments, providing excellent abrasion resistance and noise reduction.



SSU-025



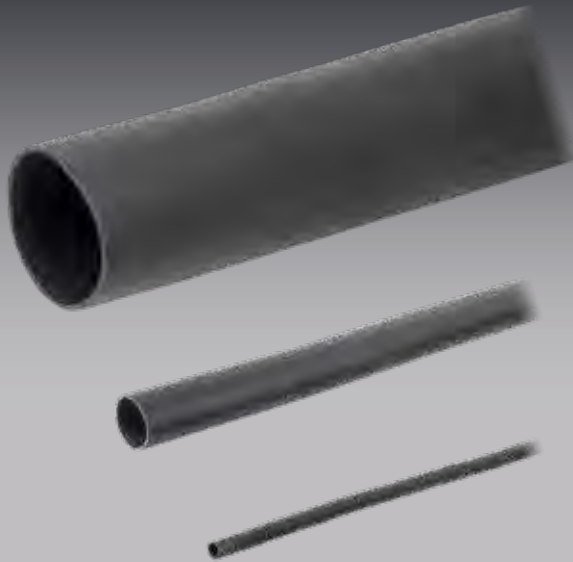
Guard-Shrink – Heat Shrinkable NEW

Roll Length – 25m	Ø (mm)	Recovered Ø (mm)
	A	B
SSU-010	10	5
SSU-020	20	10
SSU-025	25	12.5
SSU-030	30	15
SSU-034	34	16



Sleeving

PVC Tubing

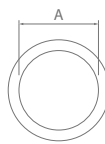


- General all around harness protection.
- Self-extinguishing fire retardant PVC.
- Wide range of lengths & sizes available.

Material : Flexible V75 Cable Grade PVC
 Burning Behaviour : Self-extinguishing
 Hardness : Shore A 92
 Operating Temperature : Continuous 75°C



PVC8/25

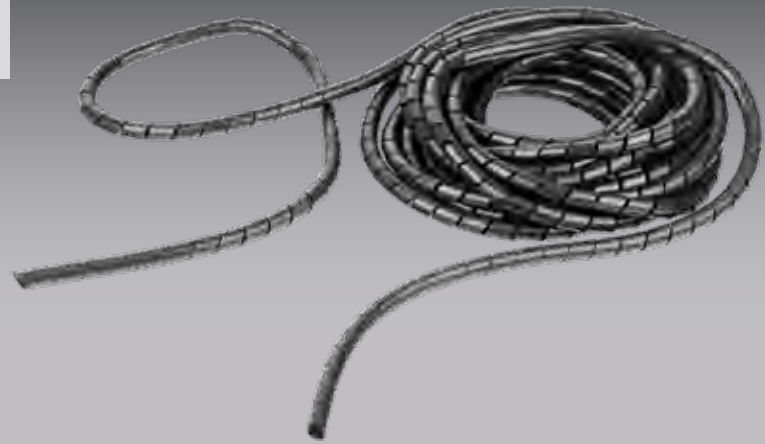


PVC35/50

PVC Tubing

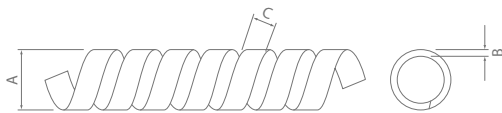
Roll Length - 25m	Roll Length - 50m	Roll Length - 100m	Roll Length - 200m	Roll Length - 250m	Inside Ø - A (mm)	Wall Thickness (mm)
PVC4/25	—	—	—	PVC4/250	4	0.5
PVC6/25	—	—	PVC6/200	—	6	0.5
PVC8/25	—	—	PVC8/200	—	8	0.65
PVC10/25	—	—	PVC10/200	—	10	0.65
PVC12/25	—	PVC12/100	—	—	12	0.85
PVC16/25	—	PVC16/100	—	—	16	0.85
—	—	PVC20/100	—	—	20	0.85
—	PVC25/50	—	—	—	25	0.85
—	—	—	—	—	30	1.0
—	PVC35/50	—	—	—	35	1.0
—	PVC40/50	—	—	—	40	1.0

- Light-weight and easy to use harness protection system.
- Excellent electrical, abrasive and binding strength.
- Flexible construction enables the easy routing of wiring looms.
- Durable and reusable.



Material :

Nylon



CTC-12B/10



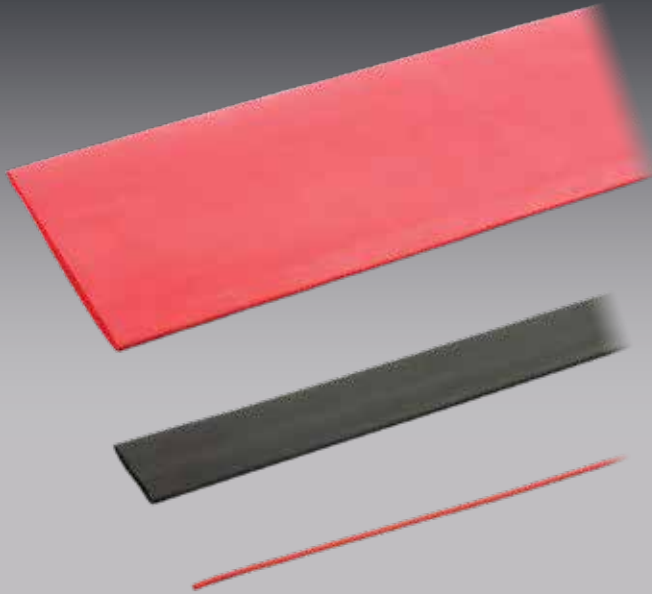
Spiral Wrap

Roll Length – 10m	Wrapping Range (mm)	Outside Ø – A (mm)	Wall Thickness – B (mm)	Wrap Width – C (mm)
CTC-3B/10	1.5 – 10	3	0.5	4.7
CTC-6B/10	4 – 15	6	0.6	6.7
CTC-12B/10	9 – 32	12	0.85	15.0
CTC-16B/10	12 – 35	16	1.0	15.5
CTC-24B/10	20 – 100	24	1.3	21.5



Sleeving

Heatshrink – Standard Wall



- Available in assortment kits, cut length packs, rolls and dispenser boxes.
- Reliable and cost-effective for standard duty electrical applications.
- 2:1 shrink ratio covers wide range of applications.
- Resistant to decay, chemicals, copper corrosion and ultra violet rays.
- Lightweight & flexible.
- Custom lengths available for all 2:1 Standard Wall Heatshrink.
- Other colours available on request, lead times apply.

Material : Polyolefin
Shrink Temperature : 95°C
Dielectric Strength : >20kV/mm
Operating Temperature : -55°C to 125°C

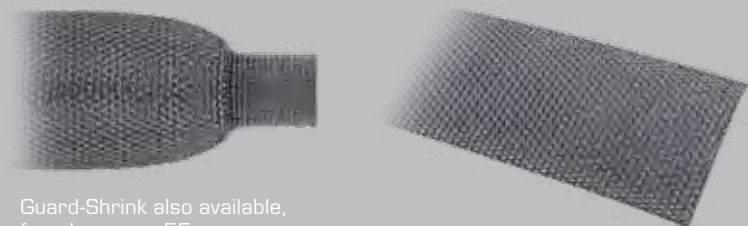
Standard Wall Heatshrink Specifications

Part No. Prefix	Diameter (mm)	Recovered Diameter (mm)	Recovered Wall Thickness (mm)	Part No. Prefix	Diameter (mm)	Recovered Diameter (mm)	Recovered Wall Thickness (mm)
HSX1.5	1.5	0.75	0.36	HSX20	20	10	0.78
HSX2.5	2.5	1.2	0.44	HSX25	25	12.5	0.86
HSX3.5	3.5	1.7	0.44	HSX30	30	15	0.86
HSX5	5	2.5	0.56	HSX40	40	20	0.96
HSX7	7	3.5	0.56	HSX50	50	25	0.96
HSX10	10	5	0.56	HSX76	76	38	1.27
HSX13	13	6.5	0.69	HSX100	100	50	1.4

Guard-Shrink

Guard-Shrink is a heat shrinkable braided sleeving consisting of a polyester multifilament and special modified polyolefin filament, it will shrink when appropriately heated.

This unique woven construction makes Guard-Shrink extremely flexible and easy to install on hoses with irregular shapes. Suitable in rough environments, providing excellent abrasion resistance and noise reduction.



Guard-Shrink also available, found on page 55.

ION-Guard™



2:1 Heatshrink – Standard Wall – 40mm/50mm Assortment Kit

Part No.	Contents:			
HS-KIT	20 x HS10 (black) 40 x HS10 (red)	20 x HS13 (black) 40 x HS13 (red)	10 x HS20 (black) 20 x HS20 (red)	10 x HS25 (black) 20 x HS25 (red)

Custom lengths available for all 2:1 Standard Wall Heatshrink.



2:1 Heatshrink – Standard Wall – 40mm/50mm Lengths

Red	Black	Pack Qty	Cut Length (mm)
HS10-40RED/40	HS10-40BLK/40	40	40
HS13-40RED/40	HS13-40BLK/40	40	40
HS20-40RED/20	HS20-40BLK/20	20	40
HS25-50RED/10	HS25-50BLK/10	10	50



2:1 Heatshrink – Standard Wall – Dispenser Boxes

Red	Black	Roll Length (m)
HSD2.5RED/20	HSD2.5BLK/20	20
HSD3.5RED/20	HSD3.5BLK/20	20
HSD5RED/10	HSD5BLK/10	10
HSD7RED/10	HSD7BLK/10	10
HSD10RED/10	HSD10BLK/10	10
HSD13RED/5	HSD13BLK/5	5
HSD20RED/5	HSD20BLK/5	5
HSD25RED/5	HSD25BLK/5	5



Sleeving



2:1 Heatshrink – Standard Wall – 1.2m Lengths

Red	Black	Red	Black
HS1.5RED	HS1.5BLK	HS13RED	HS13BLK
HS2.5RED	HS2.5BLK	HS20RED	HS20BLK
HS3.5RED	HS3.5BLK	HS25RED	HS25BLK
HS5RED	HS5BLK	HS40RED	HS40BLK
HS7RED	HS7BLK	HS50RED	HS50BLK
HS10RED	HS10BLK	HS76RED	HS76BLK



Custom lengths available for all 2:1 Standard Wall Heatshrink.

2:1 Heatshrink – Standard Wall – Rolls

Red	Black	Length (m)
HSR1.5RED/200	HSR1.5BLK/200	200
HSR2.5RED/200	HSR2.5BLK/200	200
HSR3.5RED/200	HSR3.5BLK/200	200
HSR5RED/100	HSR5BLK/100	100
—	HSR13BLK/100	100
—	HSR20BLK/100	100
HSR7RED/50	HSR7BLK/50	50
HSR10RED/50	HSR10BLK/50	50
HSR13RED/50	HSR13BLK/50	50
HSR20RED/50	HSR20BLK/50	50
HSR25RED/50	HSR25BLK/50	50
HSR30RED/50	HSR30BLK/50	50
HSR40RED/25	HSR40BLK/25	25
HSR50RED/25	HSR50BLK/25	25

Heatshrink Application



Cut length of heatshrink allowing for approximately 10mm of overlap.



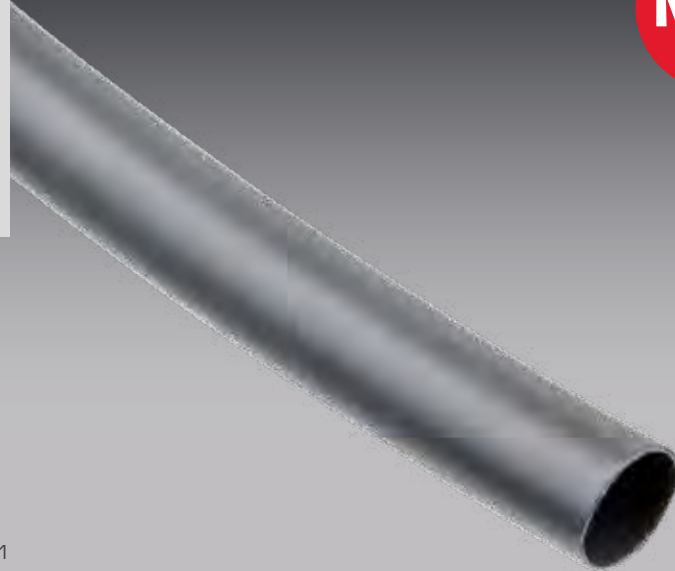
Apply heat thoroughly to the entire strip using hot air gun or similar tool.



Depending on the type of heatshrink used, the shrink ratio will be at least 2:1.



- Resistance to chemicals, diesel fuels, hydraulic fluids and lubricating oils.
- 2:1 shrink ratio covers wide range of applications.
- 1.2m lengths or rolls available.
- Flame retarding and self extinguishing.
- Dielectric strength 15kV/mm.
- Broad operating temperature range -75°C to 150°C.
- Meets AMS-DTL-23053/16.



Shrink Ratio : 2:1
 Dielectric Strength : 15kV/mm
 Flammability : UL224 VW1
 Operating Temperature : -75°C to 150°C



2:1 Heatshrink – Diesel Resistant – 1.2m Lengths

Ø (mm)	3.2	4.8	6.4	9.5	12.7	19.1
Recovered Ø (mm)	1.6	2.4	3.2	4.8	6.4	9.5
Part No.	DR-25-1/8	DR-25-3/16	DR-25-1/4	DR-25-3/8	DR-25-1/2	DR-25-3/4



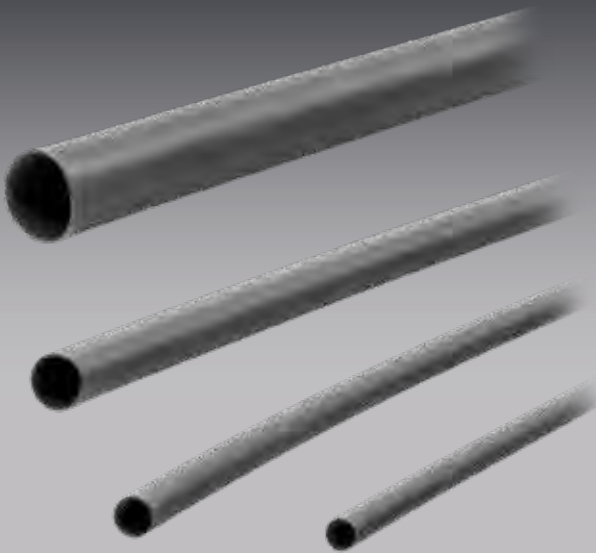
2:1 Heatshrink – Diesel Resistant – Rolls

Ø (mm)	3.2	4.8	6.4	9.5	12.7	19.1
Recovered Ø (mm)	1.6	2.4	3.2	4.8	6.4	9.5
Roll Length (m)	200	100	100	50	25	25
Part No.	DRR-25-1/8	DRR-25-3/16	DRR-25-1/4	DRR-25-3/8	DRR-25-1/2	DRR-25-3/4



Sleeving

Heatshrink – Adhesive Lined



- Available in assortment kits, cut length packs and rolls.
- Adhesive lining for ultra secure connection from cable to connector & protection against harsh environment.
- Wide range of shrink ratios and sizes.
- Flame retardant & mechanically tough.
- Lightweight & flexible.
- Custom lengths available for all 3:1 Dual Wall Heatshrink.

Material : Polyolefin
Shrink Temperature : 95°C
 Thick Wall 105°C
Dielectric Strength : >15kV/mm
 Medium Wall >20kV/mm
Operating Temperature : Dual Wall -55°C to 80°C
 Medium Wall, Thick Wall -55°C to 110°C



3:1 Dual Wall Heatshrink Specifications

Part No. Prefix	Diameter (mm)	Recovered Diameter (mm)	Recovered Wall Thickness (mm)
DW3	3	1	0.95
DW4.8	4.8	1.6	1.1
DW6	6	2	1.15
DW9	9	3	1.3
DW12	12	4	1.4
DW18	18	6	1.6
DW24	24	8	1.9
DW39	39	13	2.5

Recovered wall thickness excludes adhesive.



3:1 Dual Wall Heatshrink – 40mm/50mm Assortment Kit

Part No.	Contents:			
DW-KIT	20 x DW9 (black) 20 x DW9 (red)	20 x DW12 (black) 20 x DW12 (red)	20 x DW18 (black) 20 x DW18 (red)	20 x DW24 (black) 20 x DW24 (red)



3:1 Dual Wall Heatshrink – 40mm/50mm Lengths

Red	Black	Pack Qty	Cut Length (mm)
DW9-40RED/20	DW9-40BLK/20	20	40
DW12-40RED/20	DW12-40BLK/20	20	40
DW18-40RED/10	DW18-40BLK/10	10	40
DW24-50RED/5	DW24-50BLK/5	5	50



3:1 Dual Wall Heatshrink – 1.2m Lengths

Red	Black
DW3RED	DW3BLK
DW4.8RED	DW4.8BLK
DW6RED	DW6BLK
DW9RED	DW9BLK
DW12RED	DW12BLK
DW18RED	DW18BLK
DW24RED	DW24BLK
DW39RED	DW39BLK

Custom lengths
available for all 3:1
Dual Wall Heatshrink



3:1 Dual Wall Heatshrink – Rolls

Red	Black	Length (m)
DWR3RED/200	DWR3BLK/200	200
DWR4.8RED/100	DWR4.8BLK/100	100
DWR6RED/100	DWR6BLK/100	100
DWR9RED/50	DWR9BLK/50	50
DWR12RED/25	DWR12BLK/25	25
DWR18RED/25	DWR18BLK/25	25
DWR24RED/25	DWR24BLK/25	25
DWR39RED/25	DWR39BLK/25	25



Sleeving



3.5:1 Medium Wall Heatshrink – 1.2m Lengths

Ø (mm)	12	22	27	35	40	56	72
Recovered Ø (mm)	3	6	6	9	12	17	22
Recovered Wall Thickness (mm)	1.5	2.5	2.5	2.5	2.5	2.5	2.5
Part No.	MW12	MW22	MW27	MW35	MW40	MW56	MW72

Recovered wall thickness excludes adhesive.

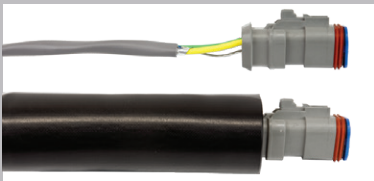


4:1 Dual Wall Heatshrink – 1.2m Lengths

Ø (mm)	5.7	7.5	11	18
Recovered Ø (mm)	1.3	1.7	2.4	4.5
Recovered Wall Thickness (mm)	0.7	0.8	0.9	1.0
Part No.	ES2000-1	ES2000-2	ES2000-3	ES2000-4

Recovered wall thickness excludes adhesive.

Adhesive Lined Heatshrink for Strain Relief Applications



Place heatshrink over cable as shown.



Apply heat starting at the connector end.



Shrinks down to approximately 1/3 - 1/4 of original size.


Newsletter

Receive the latest ionnic news and updates via email, sign up at ionnic.com/product-updates.html



ionnic.com

The screenshot shows a newsletter header for 'ionnic' with the tagline 'Lighting | Safety | Electrical' and the date 'February 2020'. The main section is titled 'Electrical' and features 'ION-Guard' products. It includes a 'Download the PDF' button, a list of product types (Expandable Braided Sleeving and Textile Sleeving), and detailed descriptions of various models like Guard-Flex, Guard-Gorilla, Guard-Tough, Guard-Sleeve, Guard-Weave, Guard-Wrap, and Guard-Shrink. A 'Learn More' button is also present.

ionnic |  Product Update Newsletter
February 2020
Lighting | Safety | Electrical

Electrical

ION-Guard™

[Download the PDF](#)

ION-Guard Expandable Braided Sleeving

The new ION-Guard range of products includes several styles of expandable braided sleeving, each with unique features and properties.

- **Guard-Flex** : Open weave, extremely flexible, industry standard.
- **Guard-Flex - Anti-Fray** : Innovative weave allows for cutting with common scissors.
- **Guard-Gorilla** : Soft and flexible with high anti-abrasion qualities.
- **Guard-Tough** : Wide, flat filaments provide an armour-like shield with the benefits of open weave construction.
- **Guard-Sleeve** : Tightly woven yet flexible and expandable, providing excellent protection and an attractive finish to cables and hoses alike.
- Range available on 25m rolls.

[Learn More](#)

ION-Guard Textile Sleeving

The new ION-Guard range includes tight weave textile sleeving in a variety of styles. Ideal for use with more than just cables.

- **Guard-Weave** : A tightly woven, yet soft Polyamide sleeve with excellent anti-abrasion qualities and resistance to hydraulic oils.
- **Guard-Wrap - Self-Closing** : Tight weave, pre-formed, self-closing sleeve. Ideal for applications to already installed cables and harnesses or where access to cables is required from time to time.
- **Guard-Shrink** : As the name suggests this tight weave sleeving has a 2:1 shrink ratio and is easy to install over hoses and cables with irregular shapes.





Enclosures

Polypropylene 68

ABS/Thermoplastic 70

PVC 74

Die-cast 75

Pendant Control 76

Fuel Junction 78

Enclosures

Polypropylene

NEW



SBZ003



SBZ003B

- Lightweight & compact.
- UV and ozone resistant.
- Flame retardant and halogen free.
- Robust polypropylene construction.
- Cable entries with self-sealing membranes.
- Moulded mounting points.
- Wide range of sizes.
- Available in grey or black.
- Most SBS series feature threaded cable entries for cable gland applications.
- Environmentally sealed.
- SBZ Series features firm but flexible construction.
- Made in Europe.



Made in Europe

Body :	Polypropylene
Sealing :	TPE
Ingress Protection :	SBZ IP55
	SBS IP66
Operating Temperature :	SBZ -30°C to 60°C
	SBS -30°C to 100°C



SBZ002B

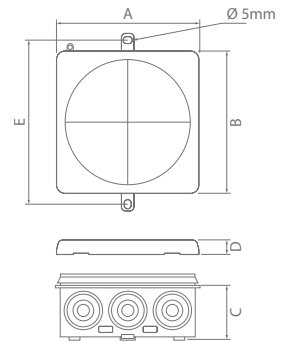
IP55

Made in Europe

SBZ Series features firm but flexible construction



SBZ001



Lanyard prevents loss of enclosure cover

Polypropylene Enclosures – SBZ Series **NEW**

Part No.	Colour	No. of Cable Entries	Entry Orientation	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
SBZ001	Grey	10		86	44	33	8	94
SBZ001B	Black							
SBZ002	Grey	12		86	86	33	8	94
SBZ002B	Black							
SBZ003	Grey	14		125	86	33	8	133
SBZ003B	Black							



Polypropylene Enclosures – SBS Series NEW

Part No.	Colour	No. of Cable Entries	Entry Orientation	Cable Entries Sizes	A (mm)	B (mm)	C (mm)	D (mm)
SBS001	Grey	6		M20 (threaded)	85	49	32	19
SBS001B	Black							
SBS002	Grey	8		M20 (threaded)	85	85	32	19
SBS002B	Black							
SBS003	Grey	7		M20 (threaded)	95	95	41	19
SBS003B	Black							
SBS004	Grey	7		M25 (threaded)	110	110	47	19
SBS004B	Black							
SBS005	Grey	10		2 x M20, 3 x M20/M25, 5 x M25/M32	140	140	62	19
SBS005B	Black							



Polypropylene Enclosures – Accessories NEW

Part No.	Description	Pack Quantity	Suits
220S20	Blanking plug – M20 thread size	1	SBS Series
220S25	Blanking plug – M25 thread size	1	SBS Series
CG20	Cable gland, M20 thread size	1	SBS Series
CG20/10	Cable gland, M20 thread size	10	SBS Series
CG25	Cable gland, M25 thread size	1	SBS Series
CG25/10	Cable gland, M25 thread size	10	SBS Series
SBR001/10	Cable retainer ring	10	SBZ, SBS Series



Enclosures

ABS/Thermoplastic



SBA1212S

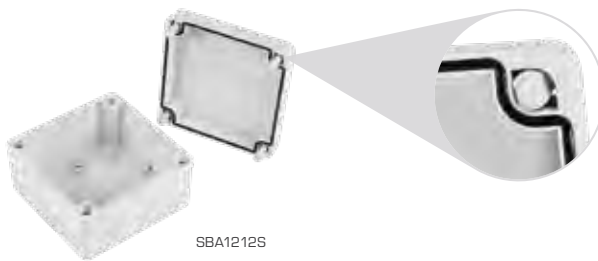


SBH2020

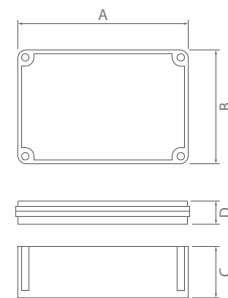
- Lightweight & compact.
- Corrosion resistant.
- Environmentally sealed.
- Hinged lid models feature pre-fitted offset mounting plate.
- All enclosures incorporate moulded mounting points, excluding Hinged lid models.
- Ideal for terminal boxes, control boxes, power distribution panels and instrument containers.
- Supplied with sealing gasket.

Hinge & Latch :
Operating Temperature :

Stainless Steel
-40°C to 120°C

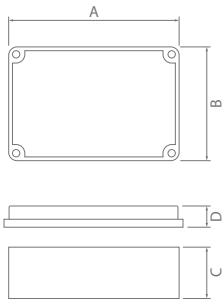


SBA1212S



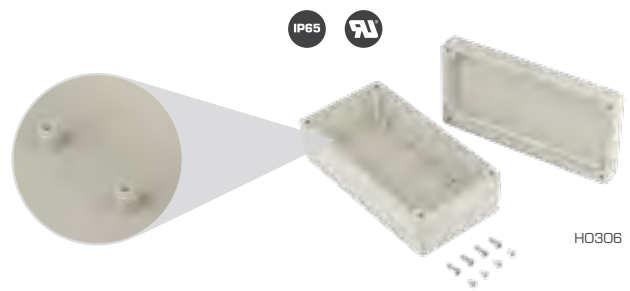
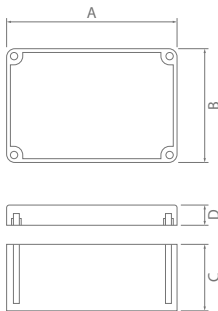
ABS Enclosures – SBA Series

Part No.	A (mm)	B (mm)	C (mm)	D (mm)
SBA0712	125	75	50	25
SBA0811	110	80	50	20
SBA1010	100	100	55	20
SBA1212	125	125	80	20
SBA1212S	125	125	55	20
SBA1217	175	125	50	25
SBA1525-1	250	150	80	50



ABS Enclosures – SBB Series

Part No.	A (mm)	B (mm)	C (mm)	D (mm)
SBB0812	80	120	40	14
SBB1010	100	100	40	14
SBB1115	150	110	49	25
SBB1924	240	190	70	26
SBB2230	300	220	76	50



ABS Enclosures – H Series

Part No.	A (mm)	B (mm)	C (mm)	D (mm)
H0300	60	65	25	15
H0301	75	105	25	15
H0302	80	85	40	15
H0304	85	125	40	15
H0306	85	165	40	15
H0308	125	165	60	15
H0310	146	186	60	15



Enclosures



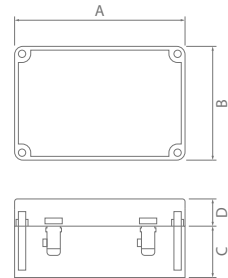
SBH2020



IP66

RoHS

CE

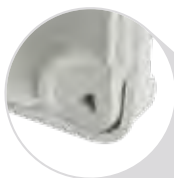


ABS Enclosures – Hinged Lid

Part No.	A (mm)	B (mm)	C (mm)	D (mm)
SBH1212S	125	125	55	20
SBH2020	200	200	120	20
SBH2819-1	280	190	100	80



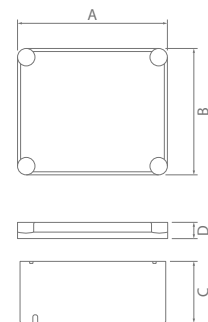
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IP55

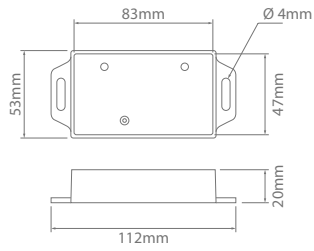


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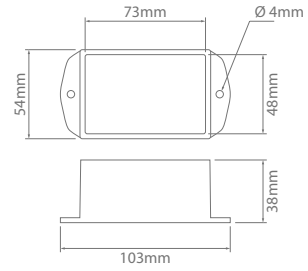


Thermoplastic Enclosures – 50 Series

Part No.	A (mm)	B (mm)	C (mm)	D (mm)
50856	113	113	40	17
50860	113	79	40	17
50861	113	113	70	17
50862	119	161	56	17
50864	170	145	69	17
50866	230	180	64	17
50868	322	250	113	17
50870	170	145	70	88
50872	230	180	72	88



SIPRO1



SIPRO2

IONNIC Potting Box

Part No.	Description	Profile
SIPRO1	Open top enclosure ideal for use with epoxy resin	Low
SIPRO2	Open top enclosure ideal for use with epoxy resin	High



Enclosures

PVC



265/4



265/1

IP56

- Solid & lightweight enclosures.
- Environmentally sealed – IP56.
- Ideal for general purpose applications.
- Supplied with sealing gasket.

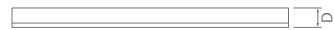
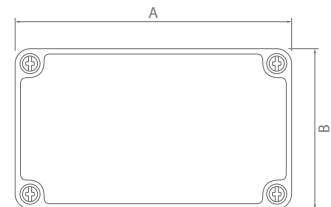
Body : Polyvinyl Chloride
 Ingress Protection : IP56
 Operating Temperature : -20°C to 60°C



265/4



265/1

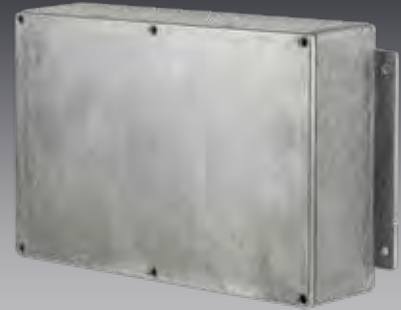
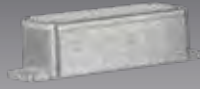


PVC Enclosures

Part No.	A (mm)	B (mm)	C (mm)	D (mm)	Wall Thickness (mm)
265/1	77	77	48	5	2.8
265/3	108	108	70	6	4.1
265/4	162	108	70	9	4.1
265/5	210	106	70	9	4.1
265/7	300	200	140	10	4.7

- Industrial grade heavy duty die-cast.
- Flanged base for easy mounting.
- High impact, corrosion resistant.
- Wide range of sizes.
- Environmentally sealed – IP66.
- Ideal for mining, industrial, agricultural and marine use.
- Supplied with sealing gasket.*

H0420



H0429

H0423



IP66

Body : Die-cast Aluminium
 Ingress Protection : IP66
 Operating Temperature : -40°C to 100°C

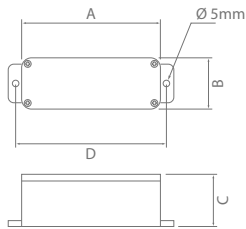


Fig 1



H0420



H1590

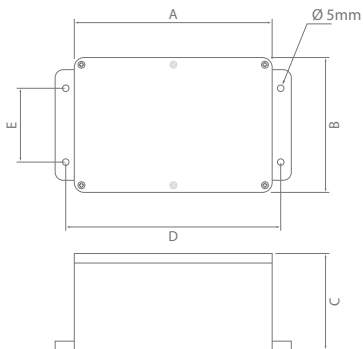


Fig 2



H0429

Die-cast Enclosures

Part No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Wall Thickness (mm)	Fig
H0420	89	53	30	100	—	1.4	1
H0421	114	64	30	127	30	1.4	2
H0422	114	64	55	127	30	1.4	2
H0423	114	90	55	127	50	1.8	2
H0424	120	100	35	137	60	1.8	2
H0427	171	121	55	189	80	1.8	2
H1590*	197	120	37	202	92	2.5	2
H0429	222	146	55	238	98	2.2	2

* Powder coated black. Not supplied with sealing gasket. Not IP66.



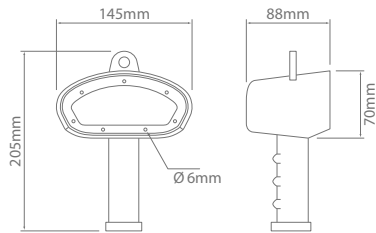


- Configurable to personal requirements.
- Engraved face plate available on request.
- Wide range of toggle switches available to integrate.

Example shown with toggle switches installed

Body :

Polyurethane



HC1



FP



FP2



FP3

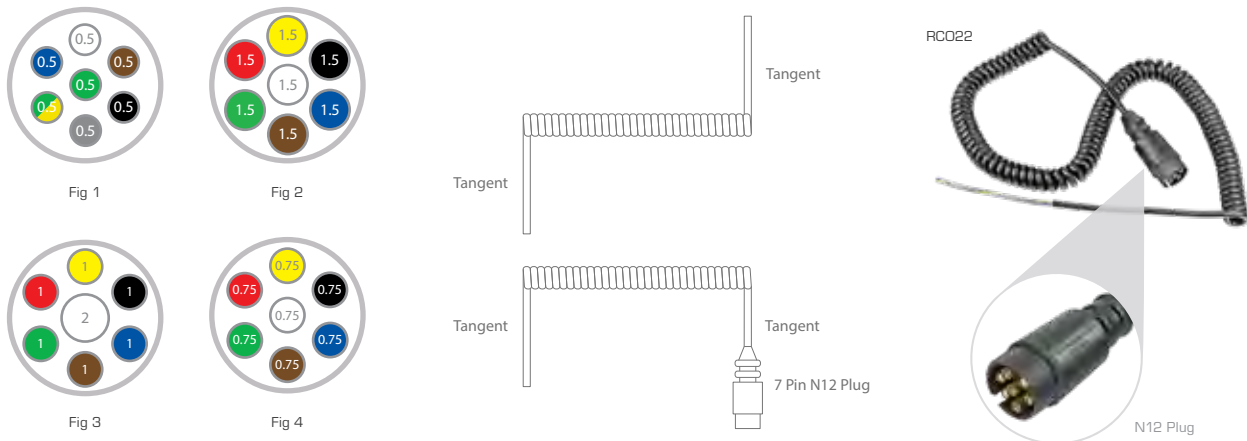


CG16SR

Pendant Control

Part No.	Description
HC1	Hand controller body
FP	Face plate – black
FP2	Face plate – 2 hole. 8mm switch hole
FP3	Face plate – 3 hole. 8mm switch hole
CG16SR	IP68 strain relief adaptor, when installed to manufacturer's specifications. 4mm to 8mm

Requires 7 x 8mm screws for face plate.
Engraved face plates available on request.



Compatible Suzi Coils – 7 Core

Part No.	Cores - Qty x mm ²	Tails	Working Length (m)	Fig
RC013	7 x 0.5	Tangent	3	1
RC014	7 x 0.5	Tangent	2	1
RC031	7 x 1.5	Tangent	8	2
RC032	1 x 2, 6 x 1	Tangent	3	3
RC022	7 x 0.75	Tangent with 1 x N12 plug	7.5	4



Other Toggle Switch accessories available, visit ionnic.com to find out more.

Compatible Toggle Switches

Part No.	Action	Terminal Style	Maximum Load @ 24V (A)	Diagram
TS403A	OFF	Screw	15	
TS403E	ON	Blade	15	
MTS403		Screw	20	
TS508A	OFF	Screw	15	
MTS508	Mom.ON	Screw	15	
TS401A	ON	Screw	15	
TS401E	ON	Blade	15	
MTS401		Screw	20	
TS101A	ON	Screw	15	
TS101E	OFF	Blade	15	
MTS101	ON	Screw	20	
TS301A	Mom.ON	Screw	15	
TS301E	OFF	Blade	15	
MTS301	Mom.ON	Screw	15	

Enclosures

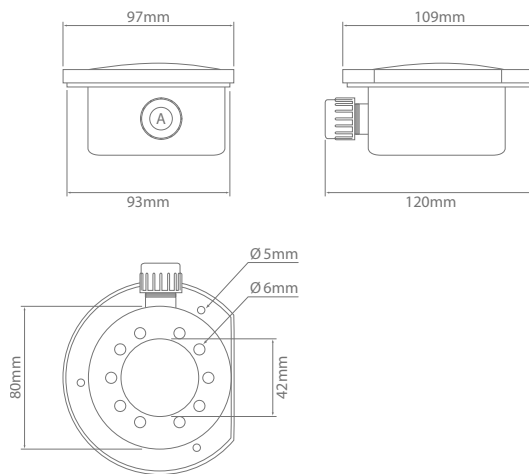
Fuel Junction

- Environmentally sealed – IP67.
- Integrated Threadconnect fitting.



IP67

Body : Polyoxymethylene
 Seal : Perbunane
 Ingress Protection : IP67
 Operating Temperature : -25°C to 80°C



Fuel Junction Enclosure Kit

Part No.	NW (A)	NC (A)
ST01	10	12

Kit contains: 1 x Housing, 1 x Lid Seal, 1 x Lid, 1 x Cap Nut, 1 x Conical Seal



Laser Engraving

Permanently engrave your company's logo on to almost any surface.

Laser engraving is a process where the laser beam physically removes the surface of the material to expose a cavity that reveals an image at eye level.

- Ideal for applications where the mark must be permanent e.g. anti-counterfeiting, serialisation.
- Mark any shape including text and barcodes.
- Incredible precision.
- Most metals and many non-metal materials.

Applications:



Date Codes & Batch Codes



Promotional Symbols/Icons



Primary GTIN Barcodes



Two Dimensional Codes



IONNIC Services



Engraving

- Large range of colour combinations including metallic finishes.
- Materials available for use with backlighting.
- UV stabilised for interior & exterior use.
- Optional adhesive back.
- Ideal for:
 - Safety signage
 - Control panels
 - Product tags
 - Name plates



ENG-STARTERISO
45 x 20mm



ENG-STARTER
40 x 10mm



ENG-BATTISO
45 x 20mm



ENG-BATTERY
40 x 10mm

Custom Engraving

Custom engraving is available for the creation of control panels and name plates up to a maximum size of 500mm x 380mm. Choose from a large range of colours with some materials suitable for use with backlighting. For further information ask your local reseller or enquire online at ionnic.com.



Circuit Breaker Types

Automatic Reset

The circuit breaker cycles continuously during an overload condition until the overload is removed or corrected.



Modified Reset

The circuit breaker contains an additional resistive component that causes the device to remain open as long as power is available.



Manual Reset

The circuit breaker contains a trip indicator button or lever that must be manually activated to return the device to normal operation.



Switchable

Circuit breaker operation is the same as 'Manual Reset' but with the additional trip button or lever allowing the user to disable the circuit.





Circuit Protection

Circuit Breakers – General	82
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Circuit Protection

Circuit Breakers – General



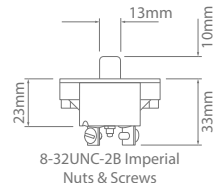
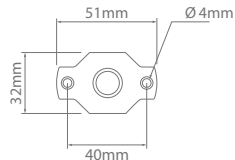
Made in North America

- Panel or surface mount option.
- Compact size.
- Manual or automatic reset methods.
- Broad operating temperature.
- Ideal for trucks, buses, RV's, portable generators, battery chargers.
- Made in North America.

Material : CDM, S55 Series Thermoplastic
Ingress Protection : CDM Series IP66
 S55 Series IP54
Approvals : SAE J1171
 S55 Series UL & CSA
 CDM, 121/123 Series SAE J553
Operating Temperature : -40°C to 85°C



IP66

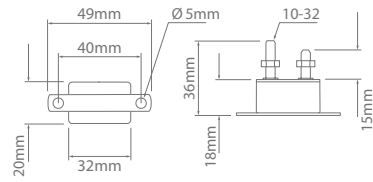
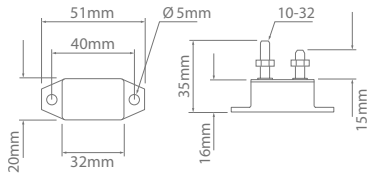


CDM Series – Panel Mount

3A	5A	10A	15A	Current Rating	30A	40A	50A	60A
CDM03	CDM05	CDM10	CDM15	20A CDM20	CDM30	CDM40	CDM50	CDM60

Manual reset.
Not a Bussmann product.

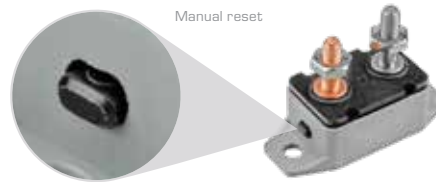
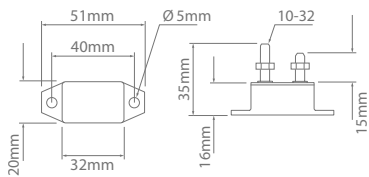
Circuit Protection



121 Series – Surface Mount

Material	Current Rating							
	8A	10A	15A	20A	25A	30A	40A	50A
Plastic	CB121-8	CB121-10	CB121-15	CB121-20	CB121-25	CB121-30	CB121-40	CB121-50
Metal	—	CB121-10M	CB121-15M	CB121-20M	CB121-25M	CB121-30M	CB121-40M	CB121-50M

Also available in packs of 10.
Automatic reset.



123 Series – Surface Mount

Material	Current Rating						
	8A	10A	15A	20A	25A	30A	40A
Plastic	—	CB123-10	CB123-15	CB123-20	CB123-25	CB123-30	CB123-40

Manual reset.



Accessories – 121/123 Series – Terminal Insulators

	Pack Qty – 1	Pack Qty – 10	Pack Qty – 100
Red	CB121BOOT-RED	CB121R/10	CB121R/100
Black	CB121BOOT-BLK	CB121B/10	CB121B/100



Circuit Protection



S55 Series – Panel Mount

		Current Rating					
3A	5A	10A	15A	20A	25A	30A	35A
S5503	S5505	S5510	S5515	S5520	S5525	S5530	S5535

S55B00T Protective boot

Manual reset.
Not a Bussmann product.

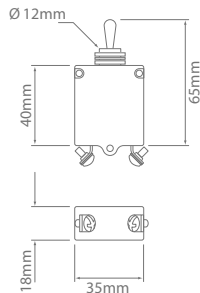
- Compact size.
- Switchable.
- Broad operating temperature.
- Ideal for passenger cars, trucks, buses, RV's, portable generators.
- Made in North America.



Material :
Approvals :
Operating Temperature :

Thermoplastic
UL1077, CSA
-20°C to 65°C

Made in North America



31 Series – Panel Mount

Current Rating			
5A	10A	15A	20A
CBW31-5	CBW31-10	CBW31-15	CBW31-20

Switchable.



Circuit Protection

Circuit Breakers – Heavy Duty



SDLM105



CB184P-120



CB185F-30

- Panel or surface mount option.
- Manual reset and switchable models.
- Broad operating temperature.
- Environmentally sealed – IP67 on most models.
- Ideal for trucks, buses, RV's, marine, battery chargers, DC audio systems.
- Made in North America.



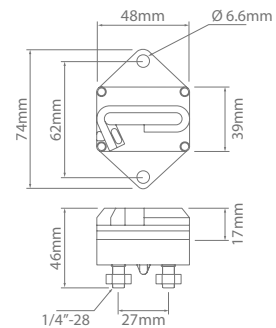
Made in North America

184/185 Series

Material : Thermoset Plastic
 Ingress Protection : IP67
 Approvals : CE, SAE J1171, SAE J1625
 Operating Temperature : -40°C to 85°C



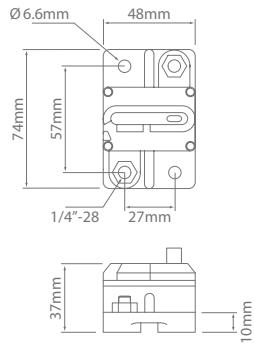
IP67



184P Series – Panel Mount

Current Rating		
80A	100A	120A
CB184P-80	CB184P-100	CB184P-120

Manual Reset.



Switchable -
Press to trip



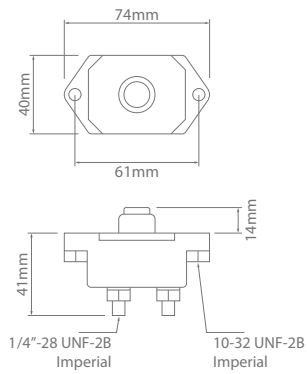
IP67



185F Series – Surface Mount

30A	40A	50A	60A	Current Rating 70A	80A	100A	120A	150A
CB185F-30	CB185F-40	CB185F-50	CB185F-60	CB185F-70	CB185F-80	CB185F-100	CB185F-120	CB185F-150

Switchable.



IP67



SDLM Series – Panel Mount

50A	60A	Current Rating 80A	105A	150A
SDLM50	SDLM60	SDLM80	SDLM105	SDLM150

Manual Reset.

Not a Bussmann product.



Circuit Protection

CB255-10



- Marine rated.
- Stainless steel hardware.
- Panel or surface mount options.
- Switchable.
- Broad operating temperature.
- Environmentally sealed – IP66.
- Ideal for marine applications, trucks, buses, RV's.
- Made in North America.



CB187F-100

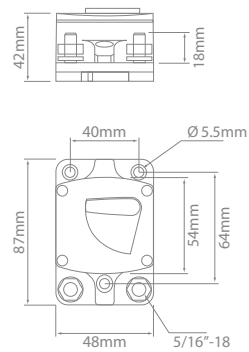
Made in North America

Material :
Approvals :

255 Series
187F Series

Thermoplastic
SAE J1171
SAE J553
SAE J1625, CE
-40°C to 85°C

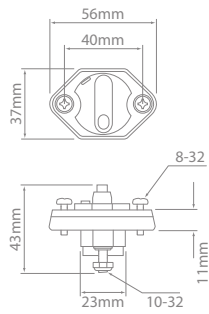
Operating Temperature :



187F Series – Surface Mount

30A	40A	Current Rating	60A	70A
CB187F-30	CB187F-40	50A	CB187F-60	CB187F-70
80A	100A	120A	150A	200A
CB187F-80	CB187F-100	CB187F-120	CB187F-150	CB187F-200

Switchable.



255 Series – Panel Mount

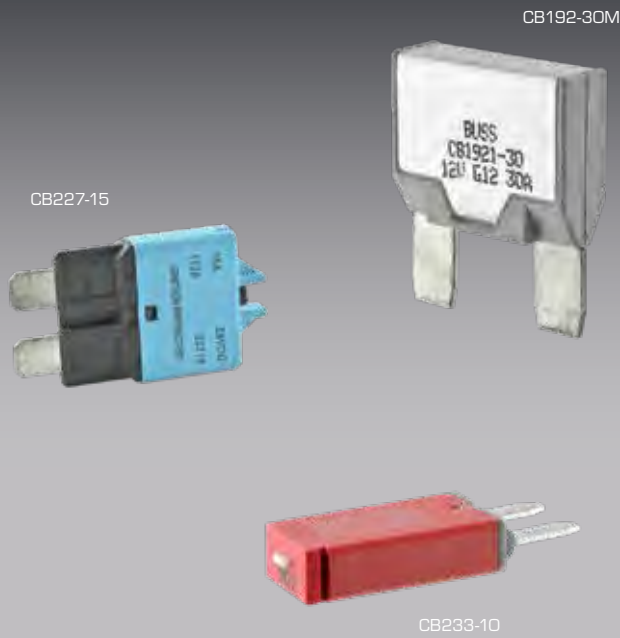
10A		15A		20A		Current Rating		35A		40A		50A	
CB255-10		CB255-15		CB255-20		CB255-25	30A	CB255-30		CB255-35		CB255-40	CB255-50

Switchable.



Circuit Protection

Circuit Breakers – Blade



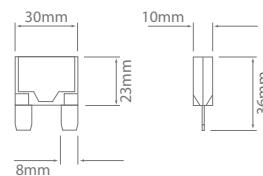
Made in North America

- Replaces standard blade fuse types.
- Manual or modified reset models.
- Broad operating temperature.
- Ideal for passenger cars, trucks, buses, RV's.
- ATC/ATO & ATM series colour-coded to current rating.
- Made in North America.

Material : Housing Thermoplastic
 Terminals Tin-plated Copper Alloy

Approvals : SAE J553
 Maxi & ATC/ATO Series SAE J1171

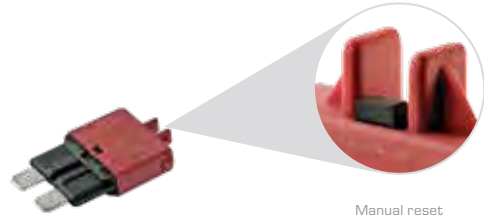
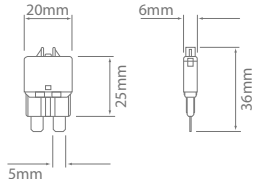
Operating Temperature : -40°C to 85°C



Maxi (MAX)

Pack Qty - 1	Current Rating (A)
CB192-20M	20
CB192-30M	30

Modified Reset.

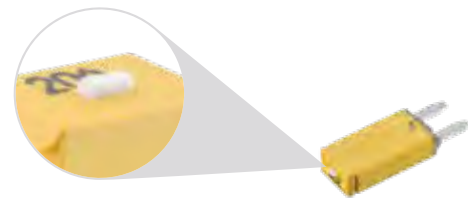
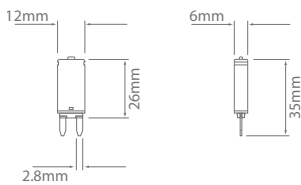


Manual reset

ATC/ATO

Pack Qty - 1	Pack Qty - 10	Current Rating (A)	Colour
CB227-5	CB227-5/10	5	Tan
CB227-7.5	CB227-7.5/10	7.5	Brown
CB227-10	CB227-10/10	10	Red
CB227-15	CB227-15/10	15	Blue
CB227-20	CB227-20/10	20	Yellow
CB227-25	CB227-25/10	25	White
CB227-30	CB227-30/10	30	Green

Manual Reset.



Manual reset

Mini (ATM)

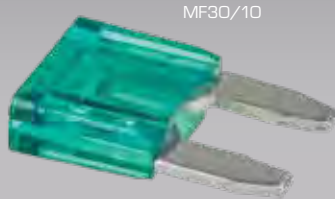
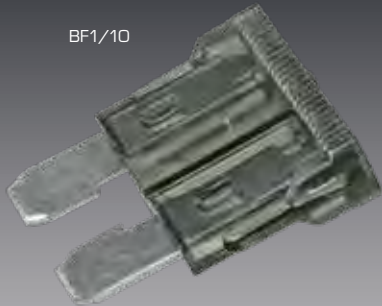
Pack Qty - 1	Pack Qty - 10	Current Rating (A)	Colour
CB233-5	CB233-5/10	5	Tan
CB233-7.5	CB233-7.5/10	7.5	Brown
CB233-10	CB233-10/10	10	Red
CB233-15	CB233-15/10	15	Blue
CB233-20	CB233-20/10	20	Yellow
CB233-25	CB233-25/10	25	White
CB233-30	CB233-30/10	30	Green

Manual Reset.



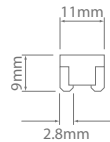
Circuit Protection

Fuses



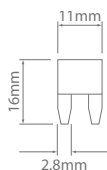
- Wide range of fuse types and current ratings.
- Assortment kits available.
- Colour coded to industry standards.

Blade – Micro (ATM-LP)



Pack Qty – 10	Current Rating (A)	Colour
MCBF5/10	5	Orange
MCBF7.5/10	7.5	Brown
MCBF10/10	10	Red
MCBF15/10	15	Blue
MCBF20/10	20	Yellow
MCBF25/10	25	Clear
MCBF30/10	30	Green

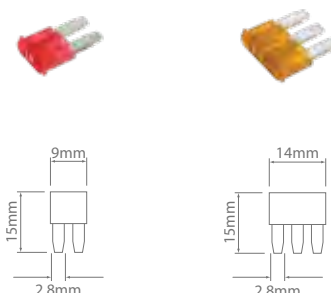
Blade – Mini (ATM)



Pack Qty – 10	Pack Qty – 100	Current Rating (A)	Colour
MF2/10	MF2/100	2	Grey
MF3/10	MF3/100	3	Purple
MF4/10	MF4/100	4	Pink
MF5/10	MF5/100	5	Orange
MF7.5/10	MF7.5/100	7.5	Brown
MF10/10	MF10/100	10	Red
MF15/10	MF15/100	15	Blue
MF20/10	MF20/100	20	Yellow
MF25/10	MF25/100	25	Clear
MF30/10	MF30/100	30	Green
MF35/10	MF35/100	35	Purple

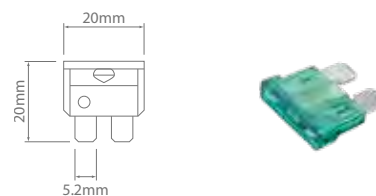
Blade – Micro 2/3 Blade (ATR & ATL)

ATR (2 Blade) Pack Qty – 10	ATL (3 Blade) Pack Qty – 10	Current Rating (A)	Colour
M2F5/10	M3F-5/10	5	Tan
M2F7.5/10	M3F-7.5/10	7.5	Brown
M2F10/10	M3F-10/10	10	Red
M2F15/10	M3F-15/10	15	Blue
M2F20/10	—	20	Yellow
M2F25/10	—	25	Clear
M2F30/10	—	30	Green



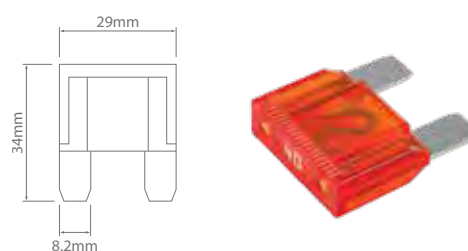
Blade (ATC/ATO)

Pack Qty – 10	Pack Qty – 100	Current Rating (A)	Colour
BF1/10	—	1	Black
BF2/10	BF2/100	2	Grey
BF3/10	BF3/100	3	Purple
BF4/10	BF4/100	4	Pink
BF5/10	BF5/100	5	Orange
BF7.5/10	BF7.5/100	7.5	Brown
BF10/10	BF10/100	10	Red
BF15/10	BF15/100	15	Blue
BF20/10	BF20/100	20	Yellow
BF25/10	BF25/100	25	Clear
BF30/10	BF30/100	30	Green
BF40/10	BF40/100	40	Dark Orange



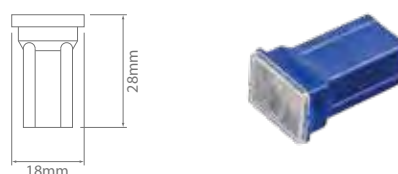
Blade – Maxi (MAX)

Part No.	Current Rating (A)	Colour
MB20	20	Yellow
MB30	30	Green
MB40	40	Orange
MB50	50	Red
MB60	60	Blue
MB70	70	Brown
MB80	80	Clear
MB100	100	Pink

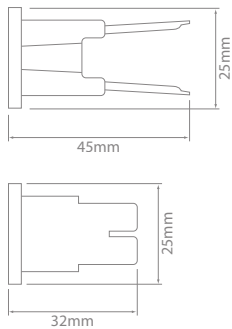
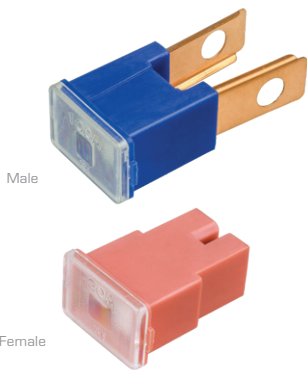


Fuse Link – Mini (MFL)

Part No.	Current Rating (A)	Colour
MFL20A	20	Light-Blue
MFL30A	30	Pink
MFL40A	40	Green
MFL50A	50	Red
MFL60A	60	Yellow
MFL80A	80	Black
MFL100A	100	Blue

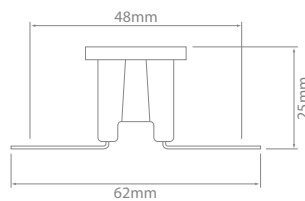
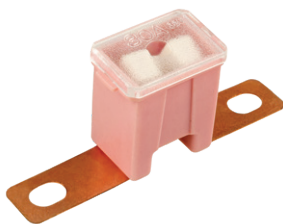


Circuit Protection



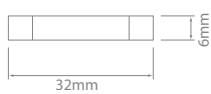
Fuse Link (FLM & FLF)

Male	Female	Current Rating (A)	Colour
FLM20A	FLF20A	20	White
FLM30A	FLF30A	30	Pink
FLM40A	FLF40A	40	Green
FLM50A	FLF50A	50	Red
FLM60A	FLF60A	60	Yellow
FLM80A	FLF80A	80	Black
FLM100A	FLF100A	100	Blue



Fuse Link - Flat (MFFL)

Part No.	Current Rating (A)	Colour
MFFL20A	20	White
MFFL30A	30	Pink
MFFL40A	40	Green
MFFL50A	50	Red
MFFL60A	60	Yellow
MFFL80A	80	Black
MFFL100A	100	Blue



Glass (3AG)

Pack Qty - 10	Current Rating (A)
3AG1/10	1
3AG3/10	3
3AG5/10	5
3AG7.5/10	7.5
3AG10/10	10
3AG15/10	15
3AG20/10	20
3AG25/10	25
3AG30/10	30
3AG35/10	35



BF-KIT



MF-KIT



MCBF-KIT



M2F-KIT



CBF-KIT

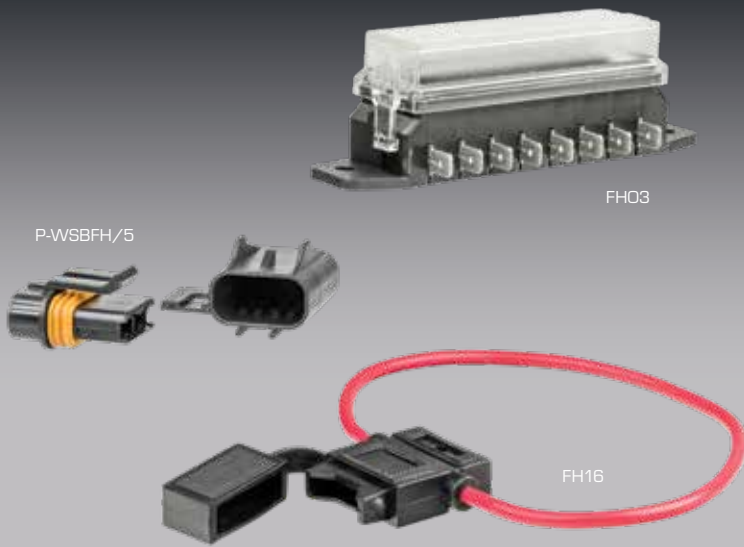
Fuse Assortment Kits

Part No.	Fuse Type	Contents		
BF-KIT	Blade (ATC/ATO)	20 x 5A Fuses 20 x 10A Fuses 20 x 15A Fuses 20 x 20A Fuses 20 x 25A Fuses 20 x 30A Fuses		
MF-KIT	Blade – Mini (ATM)	10 x 5A Fuses 10 x 7.5A Fuses 20 x 10A Fuses 20 x 15A Fuses 20 x 20A Fuses 10 x 25A Fuses 10 x 30A Fuses		
MCBF-KIT	Blade – Micro (ATM-LP)	20 x 5A Fuses 20 x 10A Fuses 20 x 15A Fuses 20 x 20A Fuses 20 x 25A Fuses 20 x 30A Fuses		
M2F-KIT	Blade (ATR) Fuse Link (FMM) Blade (ATL)	10 x 5A ATR Fuses 10 x 7.5A ATR Fuses 10 x 10A ATR Fuses 10 x 15A ATR Fuses 10 x 20A ATR Fuses 10 x 25A ATR Fuses 10 x 30A ATR Fuses	5 x 15A FMM Fuse Links 5 x 20A FMM Fuse Links 5 x 25A FMM Fuse Links 5 x 30A FMM Fuse Links 5 x 40A FMM Fuse Links	10 x 5A ATL 3 Blade Fuses 10 x 7.5A ATL 3 Blade Fuses 10 x 10A ATL 3 Blade Fuses 10 x 15A ATL 3 Blade Fuses 1 x Fuse Extractor Tool
CBF-KIT	Blade (ATC/ATO) Blade – Mini (ATM) Blade – Micro (ATM-LP)	10 x 10A ATC/ATO Fuses 10 x 15A ATC/ATO Fuses 10 x 20A ATC/ATO Fuses 10 x 25A ATC/ATO Fuses 10 x 30A ATC/ATO Fuses	20 x 10A ATM Fuses 20 x 15A ATM Fuses 20 x 20A ATM Fuses 20 x 25A ATM Fuses 20 x 30A ATM Fuses	20 x 10A ATM-LP Fuses 20 x 15A ATM-LP Fuses 20 x 20A ATM-LP Fuses 20 x 25A ATM-LP Fuses 20 x 30A ATM-LP Fuses

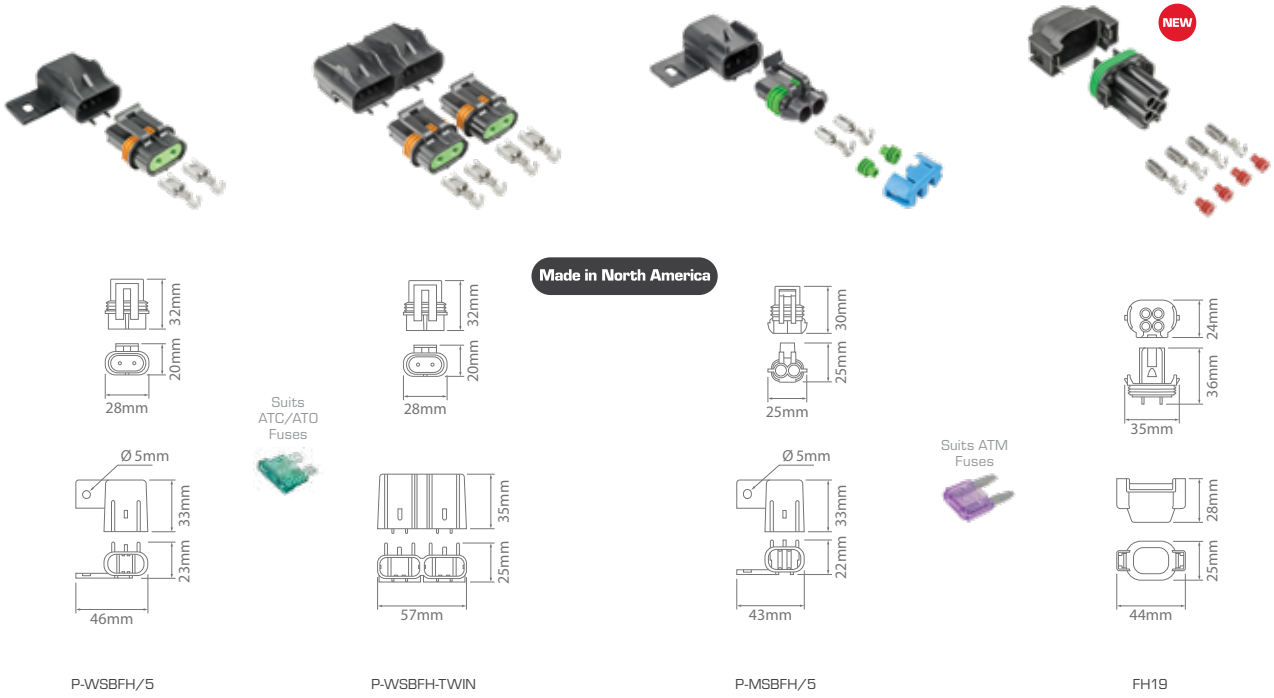


Circuit Protection

Fuse Holders

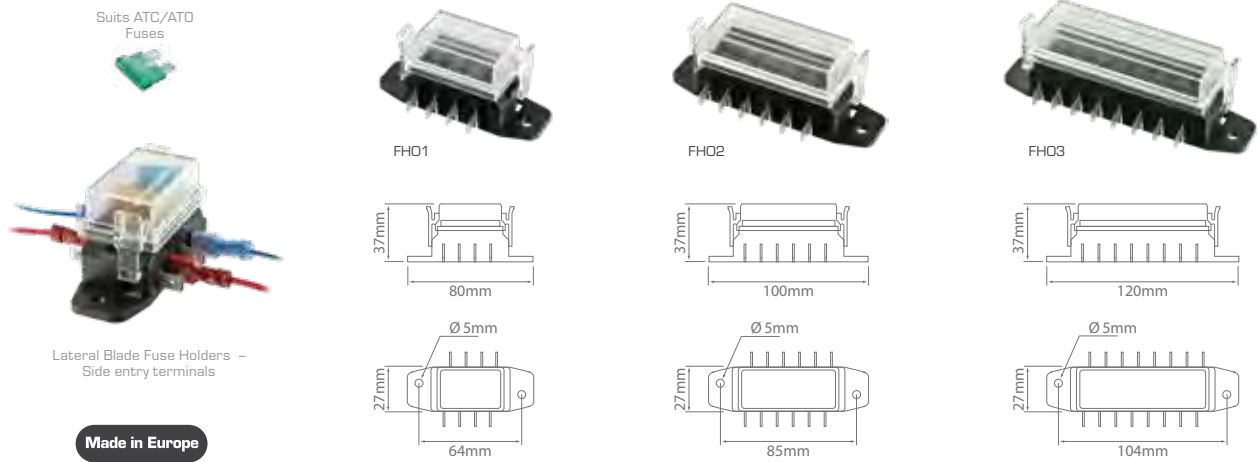


- Wide variety of styles for both blade and glass fuse types.
- Packard™ weatherproof kits available in single or double housing.
- Clear polycarbonate covers on Lateral & Axial Fuse Holders provides protection & easy visual inspection.



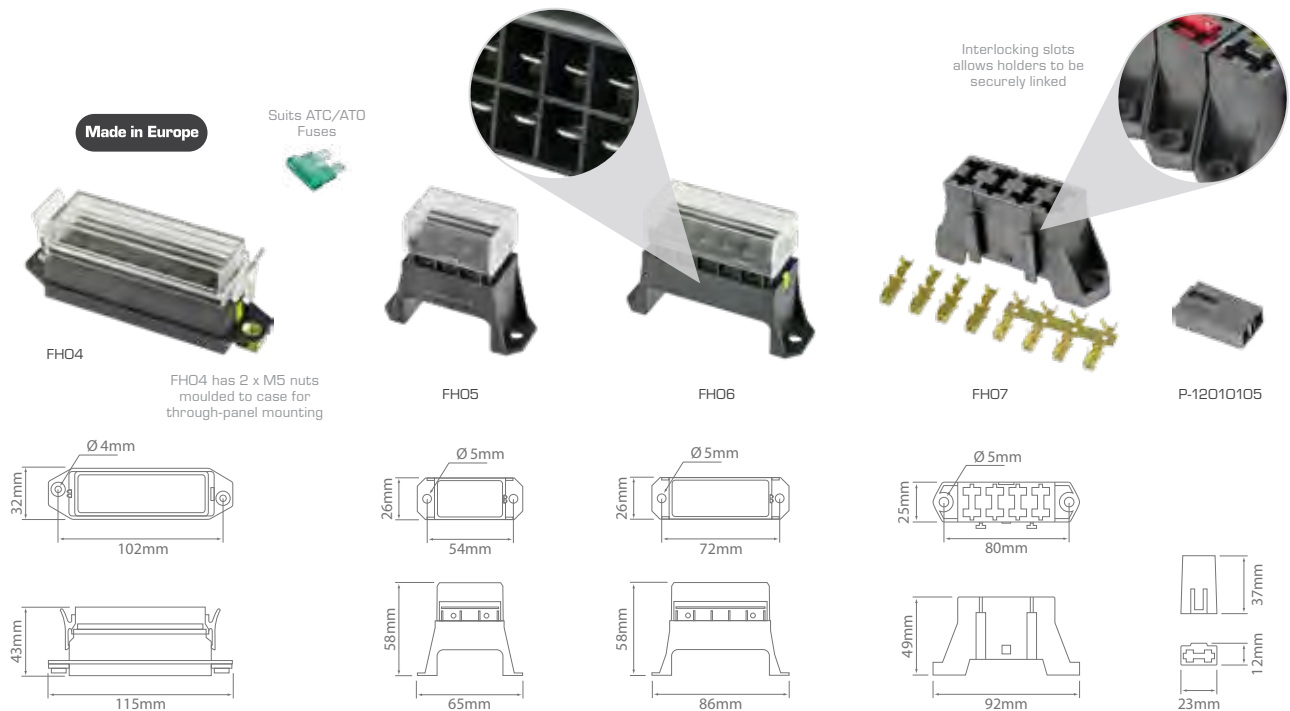
Fuse Holders – Blade – Weatherproof Kits

Part No.	Housing Type	Fuse Type	Output Current Rating Per Terminal (A)	Kit Contents
P-WSBFH/5	Mountable	ATC/ATO	30	5 x Cover (12033731) 10 x Contacts (12066614) 5 x Fuse Holder (12033769)
P-WSBFH-TWIN	Double	ATC/ATO	30	1 x Cover (12059426) 4 x Contacts (12066614) 2 x Fuse Holder (12033769)
P-MSBFH/5	Mountable	ATM	20	5 x Cover (15300027C) 10 x Contacts (12129493) 5 x Retainers (15300014) 5 x Fuse Holder (15300027) 10 x Seals (15324982)
FH19 NEW	Mountable	ATM	20	1 x Cover (2066502-3) 4 x Contacts (968857-1) 1 x Fuse Holder (2066046-2) 4 x Seals (P-15324973)



Fuse Holders – Blade – Lateral

Part No.	Seats	Fuse Type	Output Current Rating Per Terminal (A)
FH01	4	ATC/ATO	30
FH02	6	ATC/ATO	30
FH03	8	ATC/ATO	30



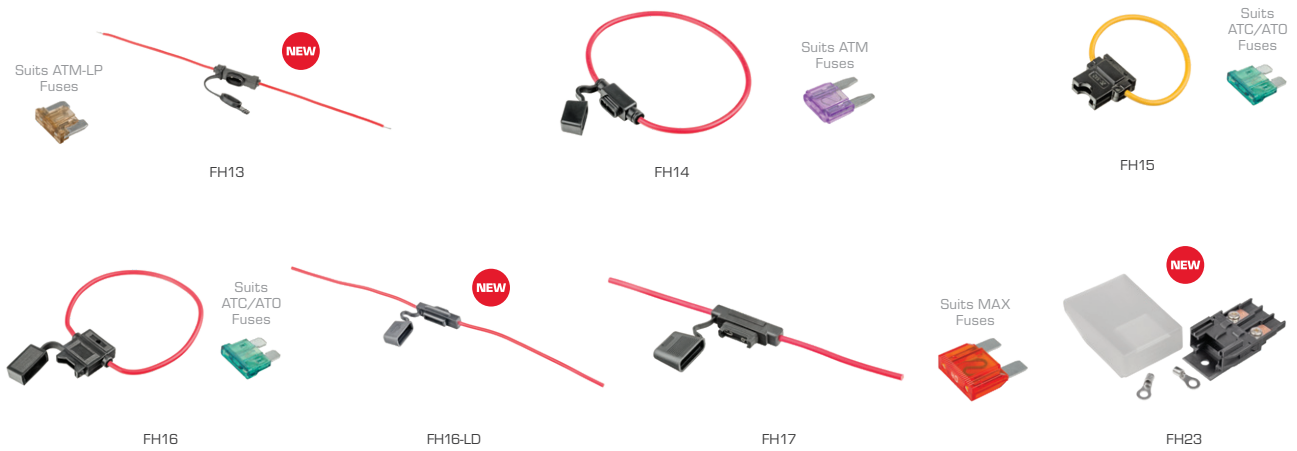
Fuse Holders – Blade – Axial

Part No.	Seats	Fuse Type	Output Current Rating Per Terminal (A)
FH04	8	ATC/ATO	30
FH05	4	ATC/ATO	30
FH06	6	ATC/ATO	30
FH07	4	ATC/ATO	30
P-12010105	1	ATC/ATO	30

Supplied with contacts: 4x 3–5mm², 4x 3–5mm² bussed
For use with contact P-12020321/100

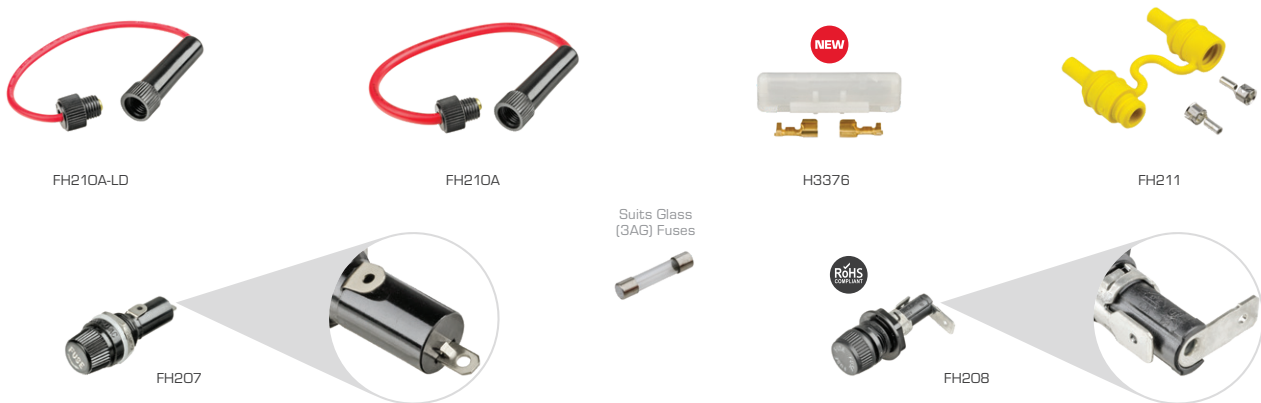


Circuit Protection



Fuse Holders – Blade

Part No.	Fuse Type	Current Rating (A)	AWG	Wire Size (mm ²)	Wire Length (mm)
FH13 NEW	Blade – Micro (ATM-LP)	10	20	0.5	260
FH14	Blade – Mini (ATM)	30	12	3.3	300
FH15	Blade (ATC/ATO)	30	12	3.3	180
FH16	Blade (ATC/ATO)	40	12	3.3	300
FH16-LD NEW	Blade (ATC/ATO)	20	16	1.5	300
FH17	Blade – Maxi (MAX)	60	8	8.3	260
FH23 NEW	Blade – Maxi (MAX)	50	Ring terminals 2.5–6mm ² . Ø6mm mounting hole. Protective cover		



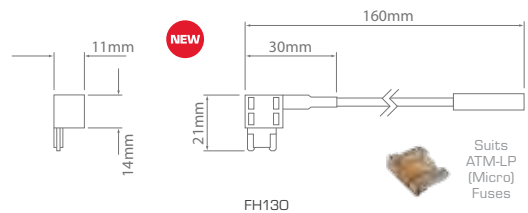
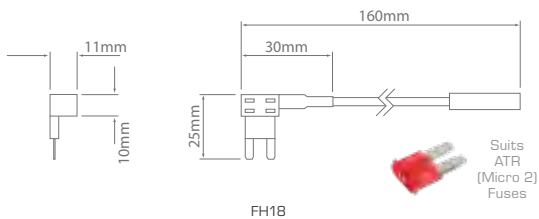
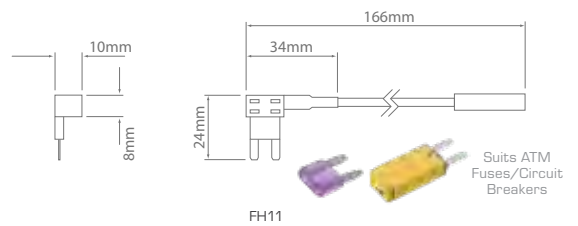
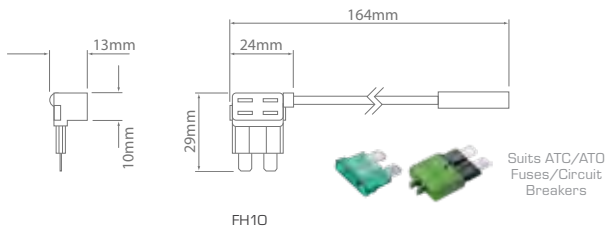
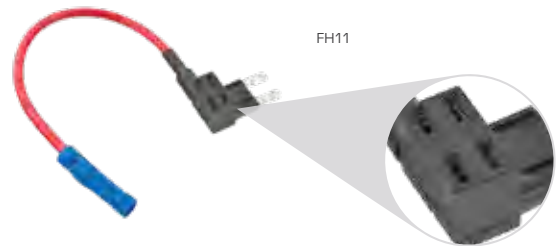
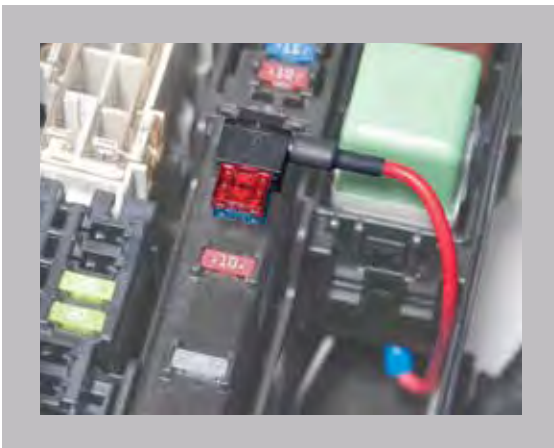
Fuse Holders – Glass (3AG)

Part No.	Style	Current Rating (A)	AWG	Wire Size (mm ²)	Wire Length (mm)
FH210A-LD	Inline	20	14	4	160
FH210A	Inline	35	10	6	160
H3376 NEW	Inline, hinged	30	18–12	1–4.5	
FH211	Inline	30	Water resistant, rubber		
FH207	Panel Mount	10	Mounting Hole – 15mm		
FH208	Panel Mount	16	Mounting Hole – 15mm		

- Provides an additional protected circuit without splicing or soldering.
- Easy & safe installation.
- Seamless crimp terminal on fly lead.
- Models suiting standard, mini or micro blade fuses.



Current Rating : 10A per circuit
Cable Size : 4mm/1.84mm²



Blade Fuse Taps

Fuse Type	ATC/ATO	ATM (Mini)	ATR (Micro 2)	ATM-LP (Micro)
Part No.	FH10	FH11	FH18	FH130 NEW



Circuit Protection

Blade Fuse Panels



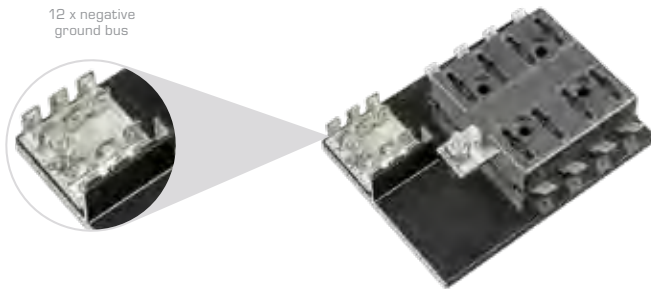
FH406



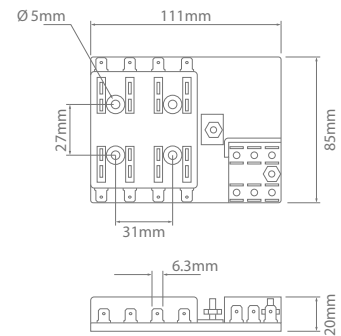
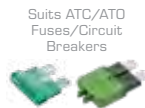
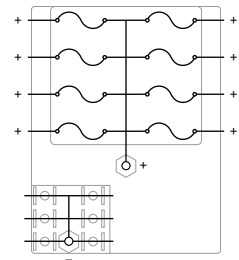
FH108

- 6, 8 or 12 fuse models.
- Suits ATC/ATO fuses/circuit breakers.
- 6.3mm blade or 4.3mm screw terminals.
- 6 or 12 circuit negative ground bus.
- Inbuilt negative busbar popular in marine applications where ground returns need to run back to the battery.
- Ideal for use with trucks, buses, boats & RV's.
- Marine models feature:
 - Dual inputs for power
 - 84 icon decal set
 - Lockable splash covers
 - Hold 2 spare fuses inside cover

Max. Total Input Rating :	100A
Max. Output Rating (Per Terminal) :	30A
Housing :	Thermoplastic
Cover :	FH406 & FH412 Polycarbonate
Contacts :	Tinned Copper
Operating Temperature :	-20°C to 85°C



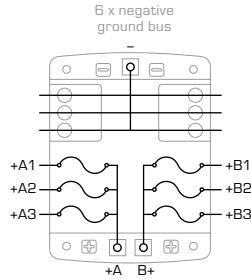
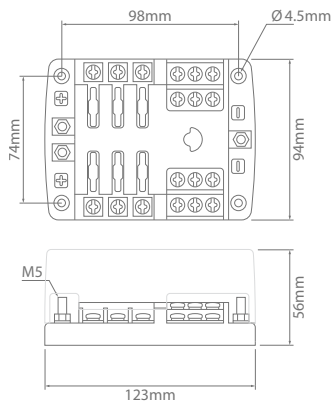
Made in North America



Blade Fuse Panel

Part No.	Seats	Ground Bus	Terminals
FH108	8 x ATC/ATO	12 circuits	6.3mm Blade

Circuit Protection



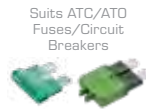
Holds 2 spare fuses inside of cover

NEW

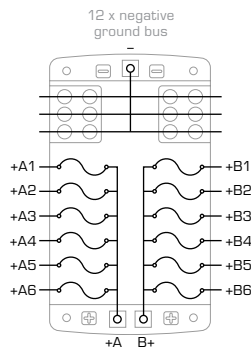
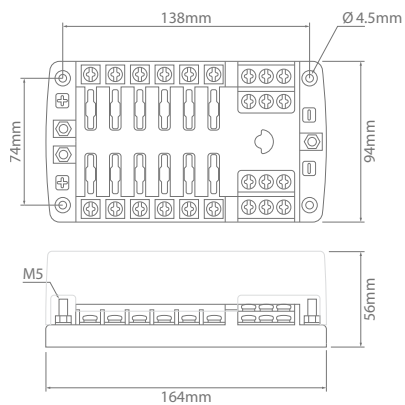
FH406

Dual inputs for power on both models

Made in Europe



Suits ATC/ATO Fuses/Circuit Breakers



Lockable splash cover

NEW

Made in Europe

FH412

Blade Fuse Panel – Marine NEW

Part No.	Seats	Ground Bus	Terminals
FH406	6 x ATC/ATO	6 circuits	4.3mm Screw
FH412	12 x ATC/ATO	12 circuits	4.3mm Screw

Supplied with 84 icon decal set.



Circuit Protection

Weatherproof Fuse Panels



IP66 Made in North America

- Mini blade circuit breakers/fuses and micro relay panels.
- Efficient power distribution in a rugged compact form for applications in marine, construction, agriculture, heavy trucking, specialty vehicles.
- Weatherproof enclosure – IP66, when cover, cable seals, and cavity plugs are installed.
- Bussed (FH12) or non-bussed (FH20).
- Broad operating temperature.
- Made in North America.

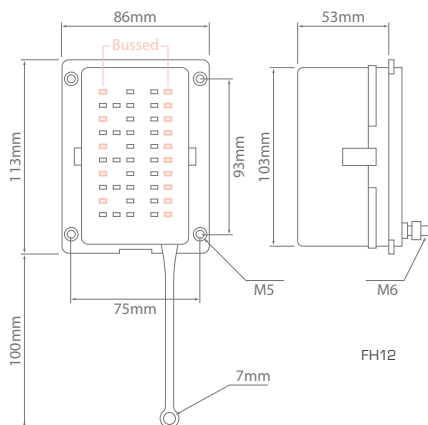
Max. Input Terminal Rating : FH12 M6 Studs 80A
 Max. Output Terminal Rating : 30A
 Housing : Black Thermoplastic
 Ingress Protection : IP66*
 Operating Temperature : -40°C to 125°C

* IP66-IEC 60529 (Valid when properly installed with cover, sealed terminals, and cavity plugs.)

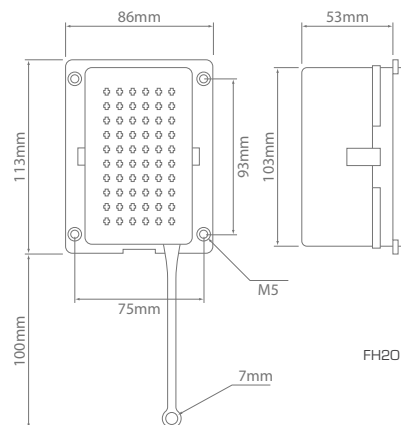
- Seats :
- 10 x Bussmann Mini Blade Circuit Breakers / Blade – Mini Fuses (ATM)
 - 5 x IONNIC Micro 280 Series Relays



Suits ATM Fuses/Circuit Breakers



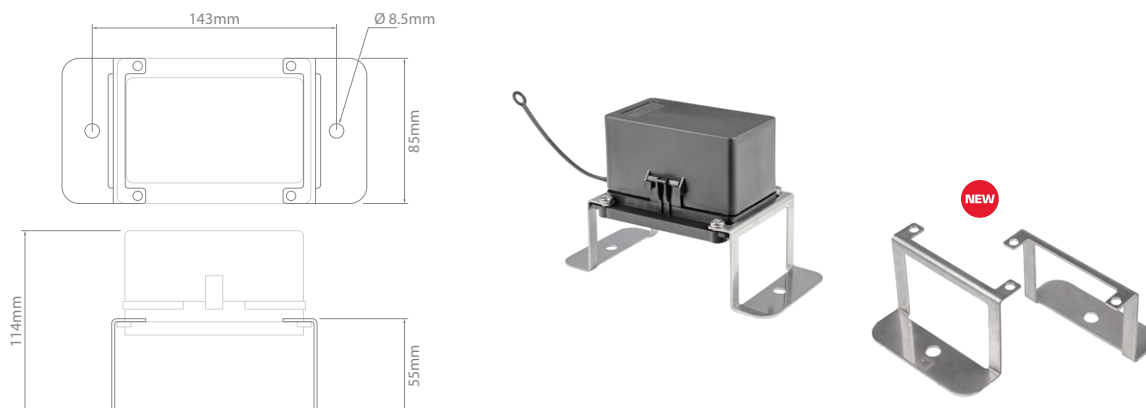
- Seats :
- Bussmann Mini Blade Circuit Breakers / Blade – Mini Fuses (ATM)
 - IONNIC Micro 280 Series Relays



Weatherproof Fuse Panels

Part No.	Description	Bussed
FH12	Seats 10 x Bussmann Mini Blade Circuit Breakers / Blade – Mini Fuses (ATM), 5 x Micro 280 Series Relays	Yes
FH20	60 Position User Configurable	No

Contacts not supplied with fuse panels.



Weatherproof Fuse Panels – Mount NEW

Part No.	Description
FH-BKT	Stainless steel mount. Sold individually. Suits FH12 & FH20



P-12129409/100



968875-1/100



968876-1/100

Weatherproof Fuse Panels – Contacts

Pack Qty – 100	Type (2.8mm)	Wire Size (mm ²)	Cable O.D. Range (mm)	Suits
P-12129409/100	Socket	1.0 – 2.0	2.48 – 3.05	FH12
968875-1/100	Socket	0.5 – 1.0	1.3 – 2.1	FH20
968876-1/100 NEW	Socket	1.0 – 2.5	2.2 – 3.0	FH20



P-12010300/100



P-15324981/100



P-15324980/100



P-15324982/100



P-15324983/100



282081-1/100



281934-2/100

Weatherproof Fuse Panels – Seals & Cavity Plugs

Pack Qty – 100	Description	Cable O.D. Range (mm)	Connector Cavity Ø (mm)	Colour	Suits
P-12010300/100	Cavity Plug	—	6.7	Green	FH12
P-15324981/100	Seal	4.30 – 3.45	6.7	Blue	FH12
P-15324980/100	Seal	3.49 – 2.81	6.7	Grey	FH12
P-15324982/100	Seal	2.85 – 2.03	6.7	Green	FH12
P-15324983/100	Seal	1.70 – 1.29	6.7	Red	FH12
282081-1/100	Cavity Plug	—	5.7	Red	FH20
281934-2/100	Seal	1.7 – 2.4	5.7	Yellow	FH20



Circuit Protection

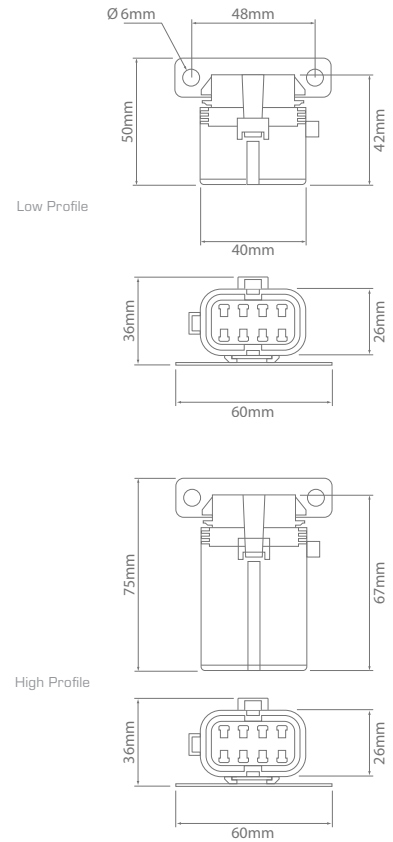
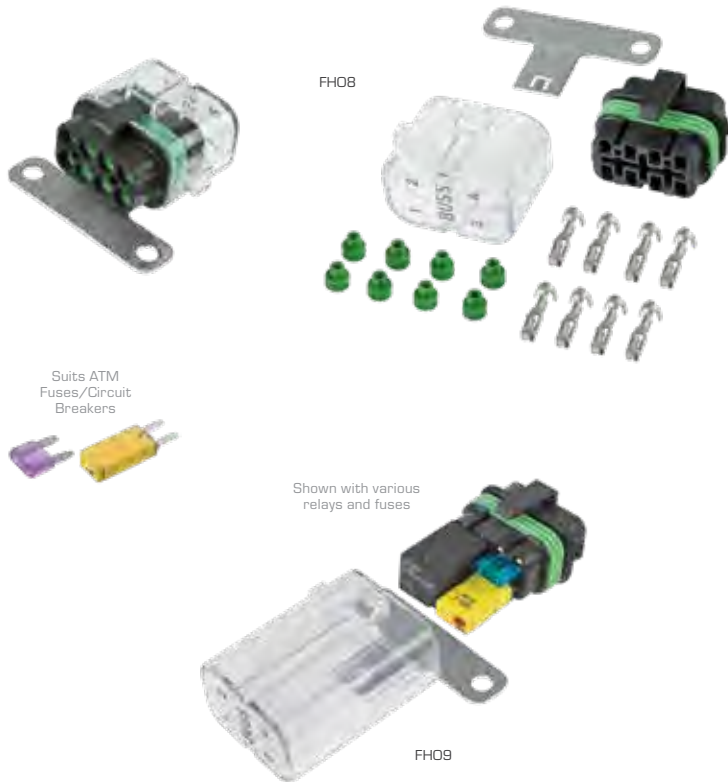
Mini Electrical Centres



IP66 Made in North America

- Designed to accept up to 2 x Micro 280 series relays, 4 x mini blade fuses/circuit breakers or a combination of both relays & fuses/circuit breakers.
- Compact size.
- Easy mounting.
- Eliminates excess wiring.
- High quality Packard™ terminals.
- Clear polycarbonate cover provides protection & easy visual inspection.
- Environmentally sealed – IP66.
- Made in North America.

Current Rating :	120A max.
Cover :	Polycarbonate
Body :	Thermoplastic
Seal :	Silicone Rubber
Contacts :	Tinned Brass
Bracket :	Zinc Plated Steel
Ingress Protection :	IP66
Operating Temperature :	-40°C to 125°C



Mini Electrical Centre – Kits

Part No.	Cover
FH08	Low Profile
FH09	High Profile

Kits contain:
 1 x Mini Electrical Centre Body
 1 x Mini Electrical Centre Cover
 1 x Mounting Bracket
 8 x Socket 0.8–1mm² (P-12077411)
 8 x Seals 0.8–1mm² (P-15324982)



P-12077411/100



P-12129493/100

Mini Electrical Centres – Contacts

Pack Qty – 100	Type (2.8mm)	Wire Size (mm ²)	Cable O.D. Range (mm)
P-12077411/100	Socket	0.5 – 1.25	2.03 – 3.12
P-12129493/100	Socket	2.0 – 3.0	2.45 – 3.80

Packard™ products.



P-15324982/100



P-15324980/100



P-12010300/100

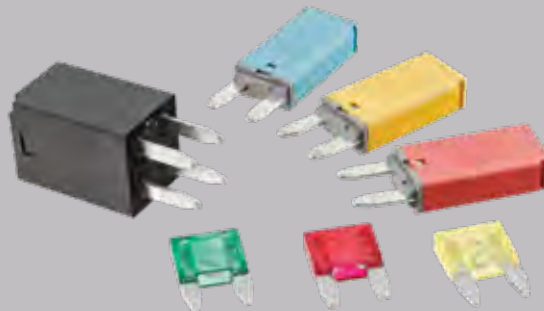
Mini Electrical Centres – Seals & Cavity Plugs

Pack Qty – 100	Description	Cable O.D. Range (mm)	Connector Cavity Ø (mm)	Colour
P-15324982/100	Seal	2.85 – 2.03	6.7	Green
P-15324980/100	Seal	3.49 – 2.81	6.7	Grey
P-12010300/100	Cavity Plug	—	6.7	Green

Packard™ products.

Mini Electrical Centres are compatible with:

- IONNIC Micro 280 Series Relays.
- Bussmann Mini (ATM) Blade Circuit Breakers – page 91.
- Blade – Mini Fuses (ATM) – page 92.



High Profile model required if using relays or circuit breakers.

Circuit Protection

Modular MFL Fuse Holder



Made in North America

- Designed for high current applications.
- Suitable for extreme moisture and high vibration environments.
- Silicone seal and removable cover offer a weather-tight enclosure for fuses.
- Multiple units can be connected together using a busbar.
- Made in North America.

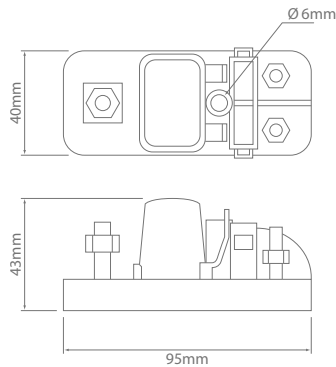
Body : Thermoplastic
Seal : Silicone Rubber
Terminal : Tinned Copper
Studs : Plated Steel
Ingress Protection : IP66 (excluding studs)
Approvals : SAE 31171 (ignition protection)
Operating Temperature : -40°C to 85°C

Holds up to
2 x Mini Fuse
Links (MFL)
Page 93



Multiple units can be
connected together
using a busbar

Suits MFL
Fuse Links



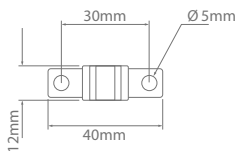
Modular MFL Fuse Holder

Part No.	Seats	Fuse Type	Current Rating (A)
FH22	2	Fuse Link – Mini (MFL)	20 – 60 (each)
3771BUS-2	Busbar – 2 position		
3771BUS-3	Busbar – 3 position		

- Power distribution protection.
- High current ratings.
- Compact size.
- Secure bolt-in connection.
- AMG series colour-coded to current rating.
- AMI & ANL series allow easy fuse inspection.
- Ideal for use in mining and emergency service vehicles, battery chargers and inverters.



Voltage Rating :	AMI, AMG	32V
	ANL	80V
Terminal :	AMI	Tin Plated Brass
	AMG	Copper
	ANL	Silver Plated Copper
Operating Temperature :		-40°C to 125°C

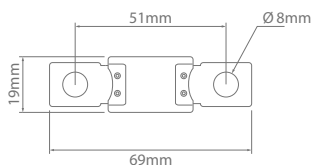


Made in North America



AMI Series

30A Orange	40A Green	50A Red	60A Yellow	70A Brown	80A White	100A Blue	125A Pink	150A Grey	175A Beige	200A Purple
AMI30	AMI40	AMI50	AMI60	AMI70	AMI80	AMI100	AMI125	AMI150	AMI175	AMI200



Made in North America



AMG Series

40A White	60A White	80A Red	100A Yellow	125A Green	150A Orange	175A White
AMG040*	AMG060*	AMG080	AMG100	AMG125	AMG150	AMG175
200A Blue	225A Beige	250A Pink	300A Grey	400A Purple	500A Brown	
AMG200	AMG225	AMG250	AMG300	AMG400	AMG500	

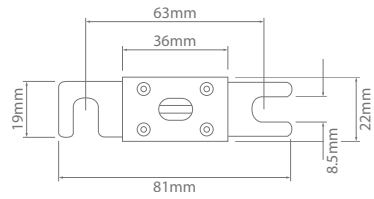
* Not a Bussmann product. Not made in North America.



Circuit Protection

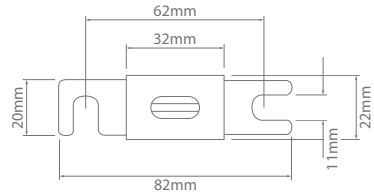


Made in North America



ANL Series – Bussmann

35A ANL035-B	40A ANL040-B	50A ANL050-B	60A ANL060-B	80A ANL080-B	100A ANL100-B	125A ANL125-B	130A ANL130-B
150A ANL150-B	175A ANL175-B	200A ANL200-B	225A ANL225-B	250A ANL250-B	275A ANL275-B	300A ANL300-B	300A ANL300-B
325A ANL325-B	350A ANL350-B	400A ANL400-B	500A ANL500-B	600A ANL600-B	675A ANL675-B	750A ANL750-B	



ANL Series – Ceramic

250A ANL250	300A ANL300	400A ANL400	500A ANL500
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Not a Bussmann product.

- Fast-acting T-Class fuses help prevent equipment damage caused by short-circuit events.
- Exceptional current limitation.
- 200kA interrupting rating complies with NEC Section 110.9 for today's large capacity systems.
- Ideal for critical industrial or commercial applications that have specific current limitation requirements.
- Made in North America.

NEW

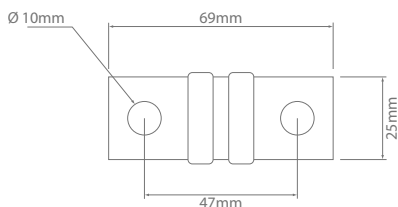


T-Class Fuses

Approvals :

CE, CSA, UL, RoHS

Made in North America



T-Class Fuses **NEW**

225A	300A	350A	400A
JJN225	JJN300	JJN350	JJN400



T-Class Fuses – Fuse Holder **NEW**

Part No.	Maximum Voltage	Post	Current Rating @ 12V
FH30	48	3/8"	Up to 400A

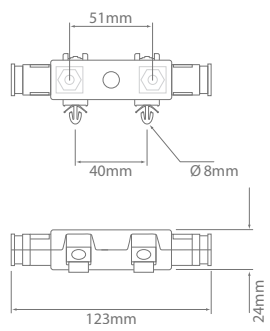


Circuit Protection

Bolt-in Fuse Holders



- Used for primary branch fusing.
- Models to suit AMI, AMG, ANL and T-Class fuses.
- Ideal for mining, agriculture, bus, truck, marine and specialty vehicle applications.
- FH Series range features stainless steel hardware.

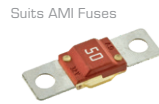
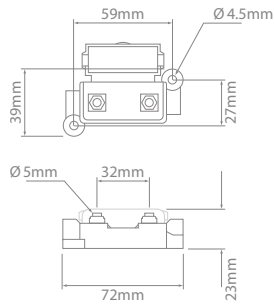


Bolt-in Fuse Holders – Inline/Panel Mount

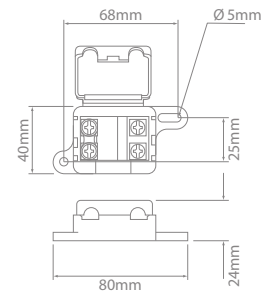
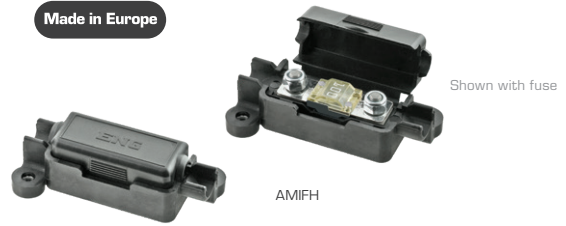
Part No.	Fuse Type
AMGFH2	AMG

Fuses not included.

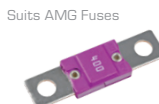
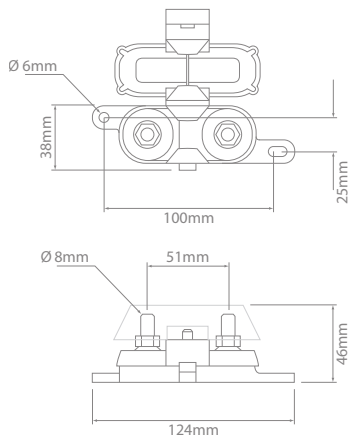
Circuit Protection



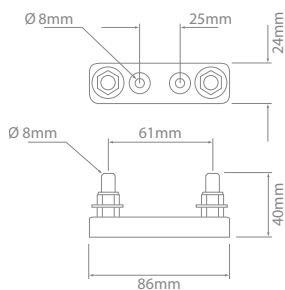
Made in Europe



AMIFH-DUAL



Made in North America



Made in North America



Bolt-in Fuse Holders – Surface Mount

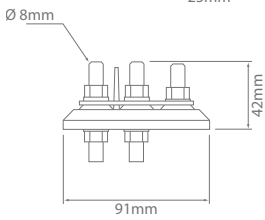
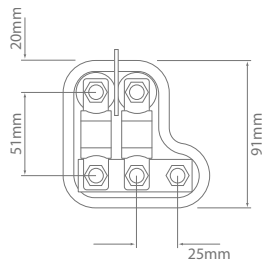
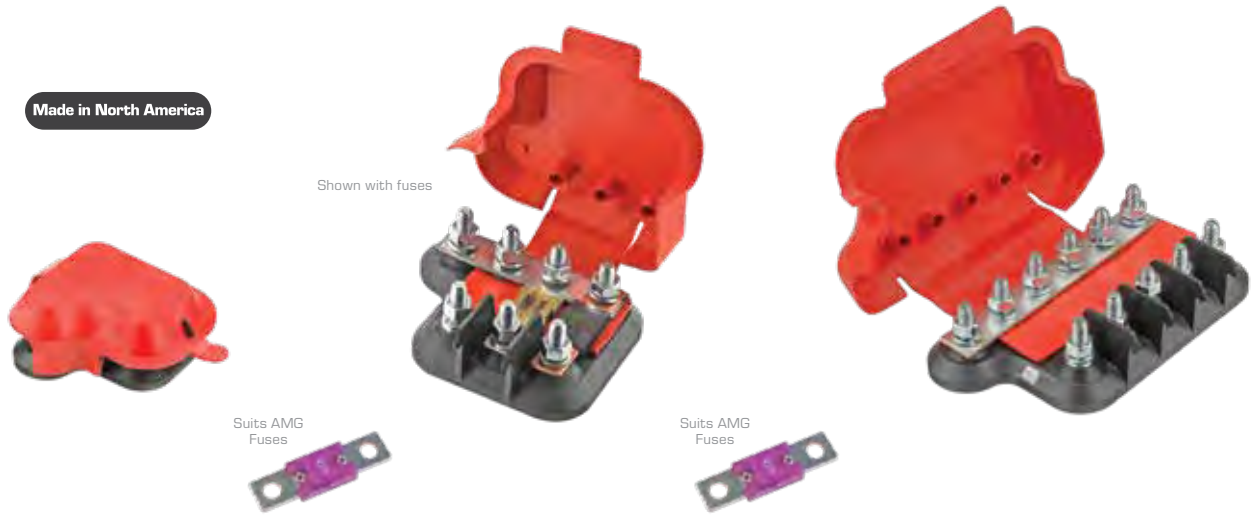
Part No.	Fuse Type
AMIFH	AMI
AMIFH-DUAL	AMI
AMGFH1	AMG
ANLFH1	ANL

AMIFH & AMIFH-DUAL are not Bussmann products.
Fuses not included.

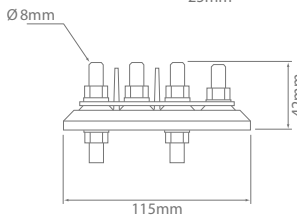
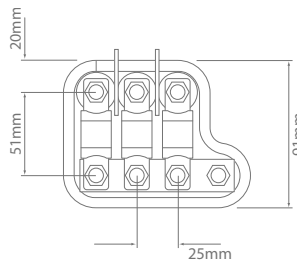


Circuit Protection

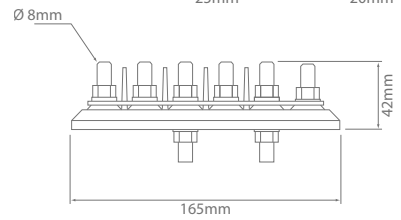
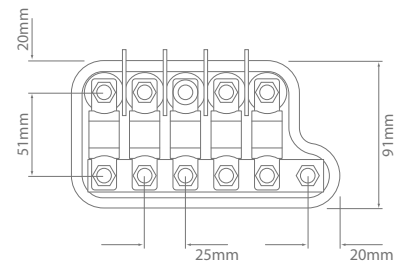
Made in North America



LMG2-1-001



LMG3-1-001



LMG5-1-001

Bolt-in Fuse Holders – Surface Mount – Bussed

Part No.	Fuse Type
LMG2-1-001	2 x AMG
LMG3-1-001	3 x AMG
LMG5-1-001	5 x AMG

One input connection to power all fuses.
Fuses not included.

Blue Dot – Enhanced Performance

Certain components feature brass or plated brass material and are marked with a blue mark. These components pass current more efficiently than steel. Ensure blue dot components are kept in their correct conductive location (factory location). Failure to do so can result in degraded performance and premature device failure.



Blue Dot

Made in North America



Stainless steel hardware on all models. Brass washers on FH31 & FH33

Blue Dot



FH30



FH31



FH32



FH33

Suits T-Class Fuses



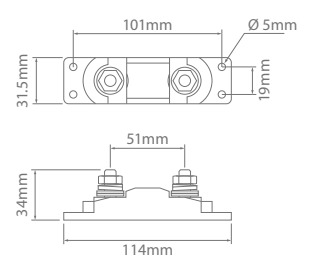
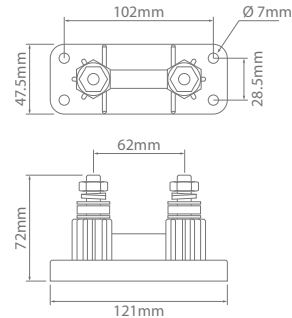
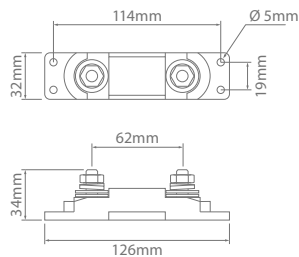
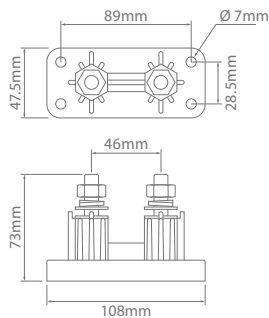
Suits ANL Fuses



Suits ANL (Ceramic only) Fuses



Suits AMG Fuses



Bolt-In Fuse Holders – FH Series NEW

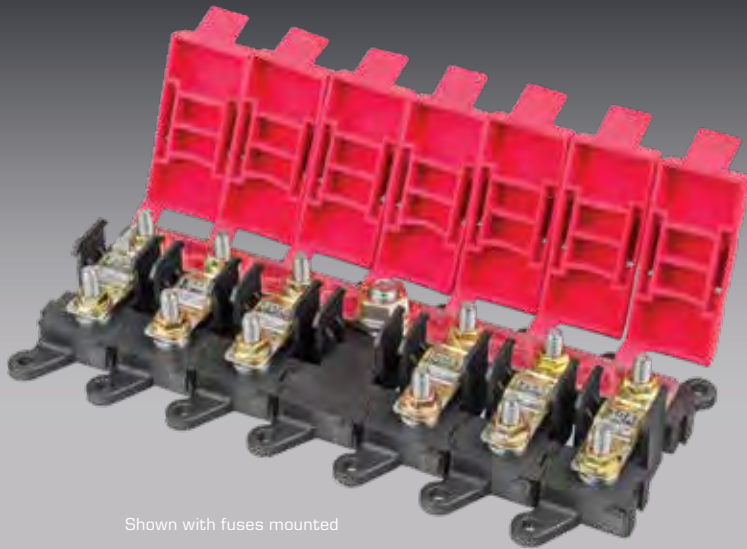
Part No.	Fuse Type	Maximum Voltage	Post	Current Rating @ 12V
FH30	T-Class	48	3/8"	Up to 400A
FH31	ANL	48	5/16"	Up to 300A
FH32 Blue Dot	ANL (Ceramic only)	32	3/8"	Up to 750A
FH33	AMG	32	5/16"	Up to 250A

Not Bussmann products.



Circuit Protection

Modular AMI Fuse Holder

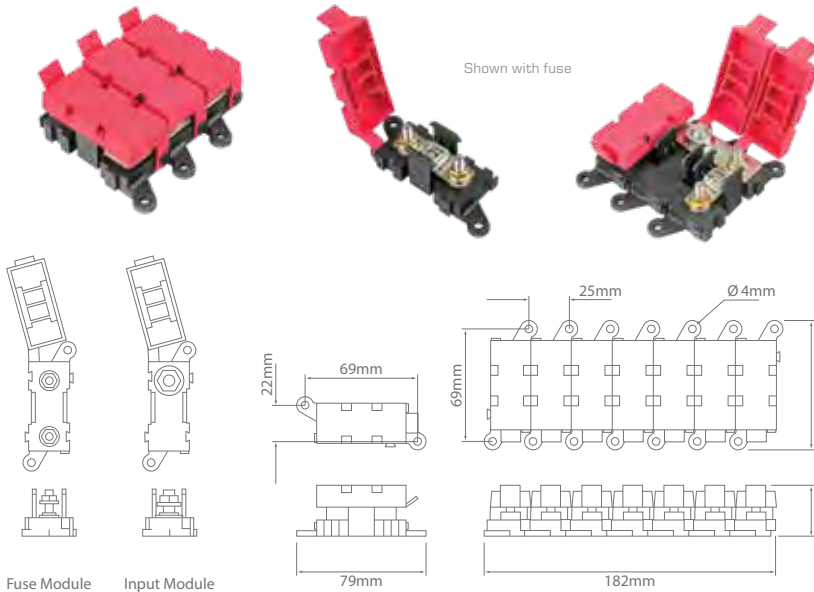


Shown with fuses mounted

Made in North America

- Modular componentry – each Fuse/Input Module easily and securely clips into the next.
- Flexible to user requirements.
- Accepts industry standard bolt-in AMI fuses.
- Up to 6 Fuse Modules can be busbed.
- Independent covers on each module.
- Can be used as a single fuse holder.
- Ideal for mining, construction, agriculture, bus, truck, marine and specialty vehicle applications.
- Made in North America.

Fuse Type :	AMI
Housing :	Thermoplastic
Cover :	EPDM/Santoprene
Studs :	Input Module Fuse Module
	M8 Stainless Steel M5 Stainless Steel
Max. Current Rating :	400A Continuous
Operating Temperature :	-40°C to 85°C



Fuse Module Input Module

Custom Build Your Fuse Holder

For busbed configurations, a maximum of 6 Fuse Modules, 1 Input Module & 1 Busbar is required, (7 modules in total).

E.g. for a busbed 5 fuse configuration the following is required:

- 5 x Fuse Modules (LMI-F-M)
- 1 x Input Module (LMI-I-M)
- 1 x Busbar (B109-7046-6)

Suits AMI Fuses



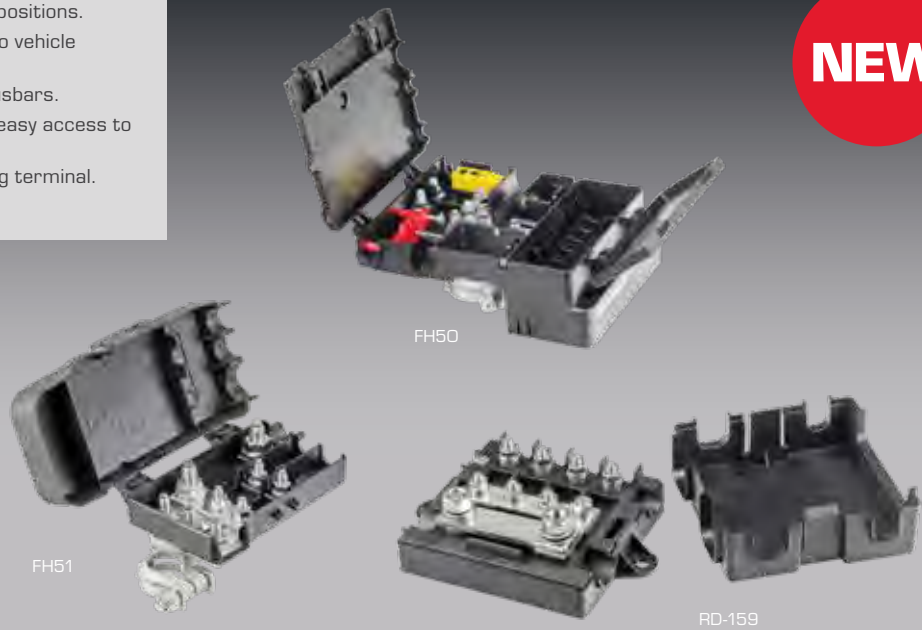
Modular AMI Fuse Holder

Part No.	Description
LMI-F-M	Fuse Module
LMI-I-M	Input Module
B109-7046-2	Busbar – Suiting 1 fuse and 1 input module
B109-7046-3	Busbar – Suiting 2 fuses and 1 input module
B109-7046-4	Busbar – Suiting 3 fuses and 1 input module
B109-7046-5	Busbar – Suiting 4 fuses and 1 input module
B109-7046-6	Busbar – Suiting 5 fuses and 1 input module
B109-7046-7	Busbar – Suiting 6 fuses and 1 input module

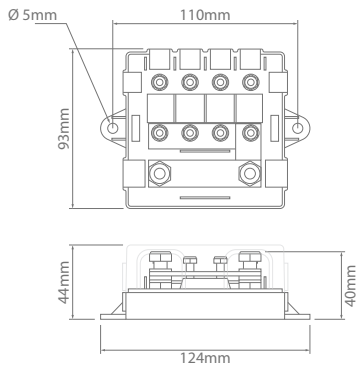


NEW

- Common feed powers all fuse positions.
- FH50 & FH51 mount directly to vehicle battery.
- RD-159 features removable busbars.
- Hinged/removable covers for easy access to fuses.
- FH50 includes battery charging terminal.
- Made in Europe.



Made in Europe



Tin plated copper busbars.
Stainless steel studs, nuts, washers



Power Distribution Units – Surface Mount **NEW**

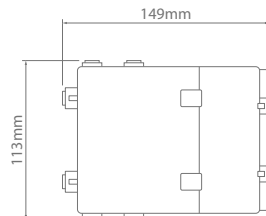
Part No.	Seats
RD-159	1 x AMG & 4 x AMI Series Bolt-in Fuses



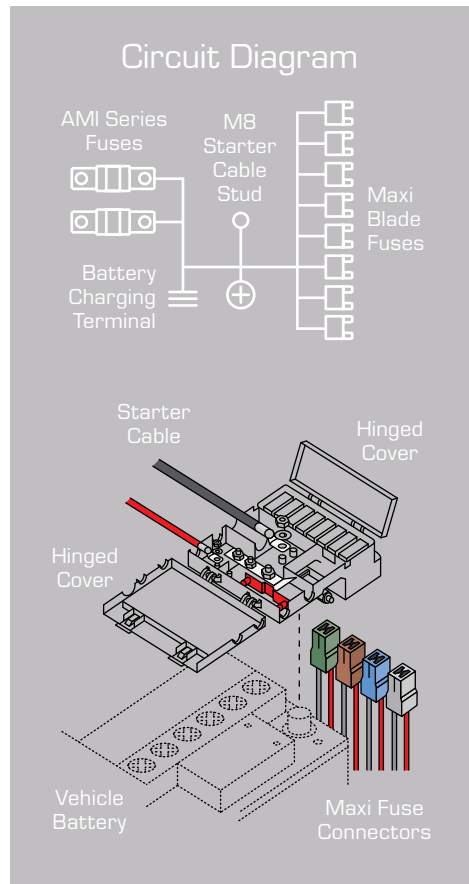
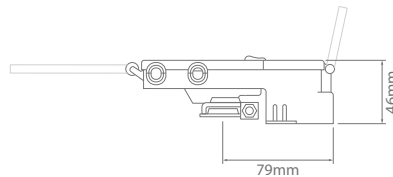
Circuit Protection



Made in Europe

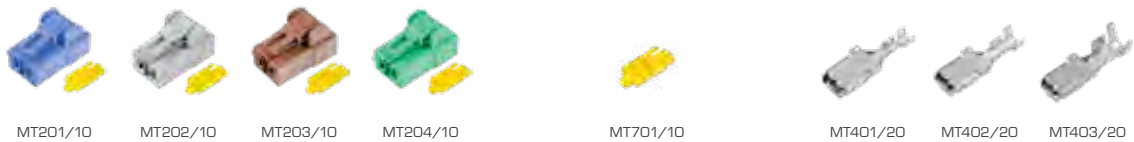


2 x AMI Fuses
8 x Maxi Blade Fuses/
Circuit Breakers



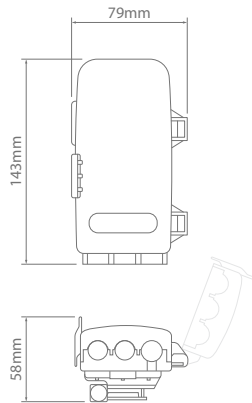
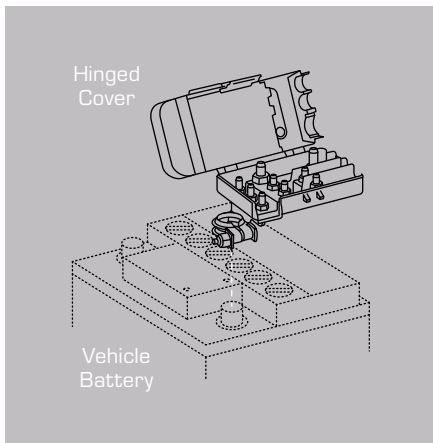
Power Distribution Units – Battery Mount – 10 Fuse NEW

Part No.	Seats	Kit Contains:
FH50	2 x AMI Series Bolt-in Fuses 8 x Maxi Blade Fuses	1 x Power Distribution Unit (MT001) 8 x Receptacle (MT401) 4 x Receptacle (MT402) 4 x Receptacle (MT403) 1 x Connector Blue(MT201) 1 x Connector Grey (MT202) 1 x Connector Green (MT203) 1 x Connector Brown (MT204)



Accessories – FH50 NEW

Part No.	Description	Pack Quantity
MT201/10	Connector Blue . Inc. Secondary Lock	10
MT202/10	Connector Grey . Inc. Secondary Lock	10
MT203/10	Connector Brown . Inc. Secondary Lock	10
MT204/10	Connector Green . Inc. Secondary Lock	10
MT701/10	Secondary Lock	10
MT401/20	Receptacle – 8mm. 1.5–2.5mm ²	20
MT402/20	Receptacle – 8mm. 4–6mm ²	20
MT403/20	Receptacle – 8mm. 8–10mm ²	20



Made in Europe



Power Distribution Units – Battery Mount – 3 Fuse NEW

Part No. Seats
FH51 2 x AMI Fuses, 1 x AMG Series Bolt-in Fuses

Maxi Blade Fuses/
Circuit Breakers



Page 90 & 93

AMI Fuses



Page 107

AMG Fuses



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Circuit Protection

Marine Rated Battery Fuses

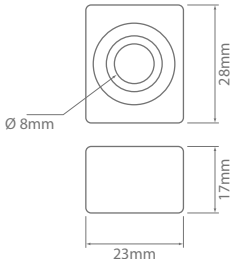
NEW



IP66 Made in North America

- Designed for the most demanding environments providing high current protection.
- Suitable for main and auxiliary circuit protection such as alternator outputs, starter motor inputs and accessory circuits.
- Breaking capacities meet the requirements of conventional vehicle batteries, and 12V, 24V, 42V electrical networks.
- Suitable for automotive and marine applications.
- Colour-coded to current rating.
- Made in North America.

Max. Voltage Rating : 58V
 Interrupt Rating : 10,000A @ 14V
 Body : Ceramic
 Housing & Cover : UL-Rated 94VO Thermoplastic
 Ingress Protection : IP66
 Approvals : ISO 8820-6



Marine Rated Battery Fuses **NEW**

40A (Lt. Blue) MRBF-040	50A (Red) MRBF-050	60A (Gold) MRBF-060	80A (Lime) MRBF-080	100A (Yellow) MRBF-100	125A (Green) MRBF-125
150A (Orange) MRBF-150	175A (White) MRBF-175	200A (Blue) MRBF-200	225A (Tan) MRBF-225	250A (Pink) MRBF-250	



Made in North America



Marine Rated Battery Fuses – Fuse Holder Kits NEW

Part No.	Description	Mounting Hole Ø (mm)	Kit Contains:
MRBF-FH1	Single	10.3	1 x Single M8 stud (MRBF-M8-1) 1 x Red cover (MRBF-C1) 1 x M8 hex nut 1 x Washer 1 x M8 spring washer
MRBF-FH2	Double	10.3	1 x Double M8 stud (MRBF-M8-2) 1 x Red cover (MRBF-C2) 2 x M8 hex nuts 2 x Washers 2 x M8 spring washers



Circuit Protection

Plug-in Diodes



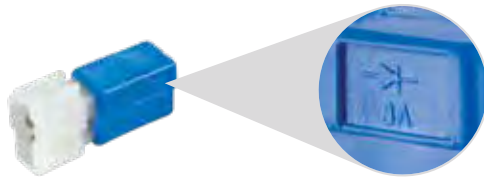
PID6A



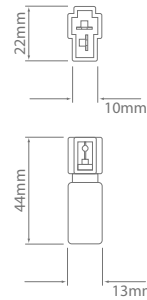
PID42

- Plug & play connection.
- Multiple configurations.
- Industry standard connector.
- Pin connection diagrams are clearly labeled on housing.
- Broad operating temperature.

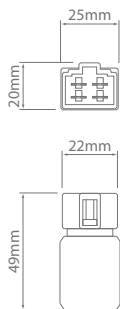
Housing : Thermoplastic Polymer
Connector : Polyamide
Terminal Size : 6.3mm
Max. Average Rectified Current : 3A
Operating Temperature : -65°C to 150°C



PID6A



PID41



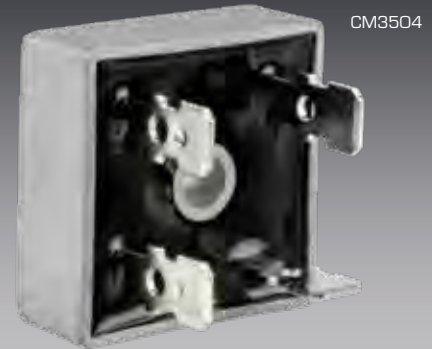
PID42



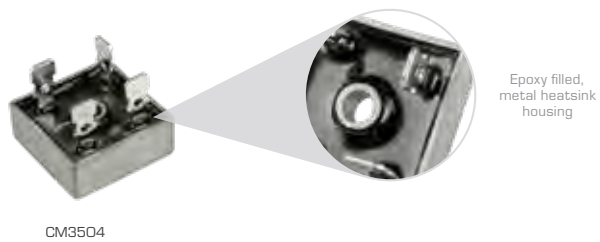
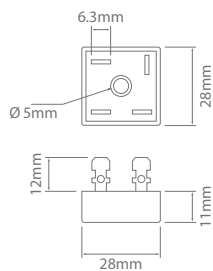
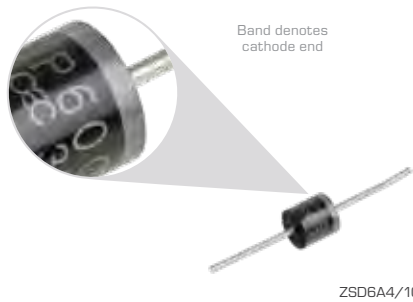
Plug-in Diodes

Part No.	Pin Connection	Max. Reverse Voltage	Mating Connectors
PID6A		600	QK2BSL/10
PID41		400	QK4BSL/10
PID42		400	QK4BSL/10

- High current capability.
- Low leakage current.
- Flame retardant epoxy.
- High surge capability.
- CM3504 features epoxy filled metal housing.



Housing : CM3504 Polymer Metal, electrically isolated



Diodes

Part No.	Nominal Zener Voltage	Max. Reverse Voltage	Max. Forward Current (A)	Max. RMS Input Voltage	Max. DC Blocking Voltage	Pack Qty
ZSD6A4/10*	120	—	6	200	—	10
IN4004/10	—	400	1	280	400	10
IN5408/10	—	1000	3	700	1000	10
CM3504	—	400	35	280	400	1

* Zener diode.





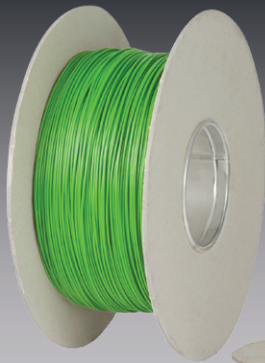


Cable

Thin Wall Cable	124
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Cable

Thin Wall Cable



TW050-GRN-500

TW200-WHT/RED-500

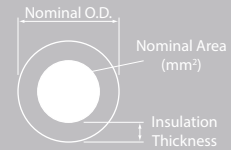


Made in Europe

- Lead free PVC insulation.
- Superior heat dissipation.
- Smaller & lighter harnesses.
- More strands of smaller diameter copper compared to traditional cables.
- Large range of colour and trace combinations.
- Made in Europe.

Conductor : Annealed Electrolytic Copper
Insulation : Lead Free PVC
Max. Voltage : 600V
Approvals : DIN72551, ISO 6772-4
Operating Temperature : -40°C to 105°C

	TW050	TW100	TW200	TW250	TW450	TW600
Nominal Area (mm ²) :	0.5	1.0	2.0	2.5	4.5	6.0
Nominal Current Rating (A)	11	16.5	25	29	42	50
Strand Count :	16	32	28	50	65	85
Strand Diameter (mm) :	0.2	0.2	0.3	0.25	0.3	0.3
Nominal O.D. (mm) :	1.5	2.0	2.6	2.85	3.9	4.2
Roll Length (m) :	500	500	500	250	250	100



Lead Free PVC Insulation on all Thin Wall Cable

TW100-BRN/PUR-500



Thin Wall Cable – No Trace

Colour	0.5mm ²	1.0mm ²	2.0mm ²	2.5mm ²	4.5mm ²	6mm ²
	TW050-BLK-500	TW100-BLK-500	TW200-BLK-500	NA	TW450-BLK-250	TW600-BLK-100
	TW050-BLU-500	TW100-BLU-500	TW200-BLU-500	NA	TW450-BLU-250	NA
	TW050-BRN-500	TW100-BRN-500	TW200-BRN-500	NA	NA	NA
	TW050-D-GRN-500	TW100-D-GRN-500	NA	NA	NA	NA
	TW050-GRN-500	NA	TW200-GRN-500	NA	NA	NA
	TW050-GRY-500	TW100-GRY-500	TW200-GRY-500	NA	NA	NA
	TW050-ONG-500	TW100-ONG-500	TW200-ONG-500	NA	NA	NA
	TW050-PNK-500	TW100-PNK-500	NA	NA	NA	NA
	TW050-PUR-500	TW100-PUR-500	TW200-PUR-500	NA	NA	NA
	TW050-RED-500	TW100-RED-500	TW200-RED-500	NA	TW450-RED-250	NA
	TW050-WHT-500	TW100-WHT-500	TW200-WHT-500	NA	NA	NA
	TW050-YEL-500	TW100-YEL-500	TW200-YEL-500	NA	NA	NA





Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – Black Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
 Blue Trace		NA	TW100-BLK/ BLU -500	NA
 Brown Trace	TW050-BLK/ BRN -500		NA	NA
 Dark Green Trace	NA		TW100-BLK/ D-GRN -500	TW200-BLK/ D-GRN -500
 Green Trace	NA		NA	NA
 Grey Trace	NA		TW100-BLK/ GRY -500	NA
 Orange Trace	NA		NA	NA
 Pink Trace	TW050-BLK/ PNK -500		NA	NA
 Purple Trace	NA		NA	NA
 Red Trace	NA		TW100-BLK/ RED -500	TW200-BLK/ RED -500
 White Trace	TW050-BLK/ WHT -500		TW100-BLK/ WHT -500	NA
 Yellow Trace	NA		TW100-BLK/ YEL -500	NA

Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – Blue Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
 Black Trace	TW050- BLU /BLK-500		TW100- BLU /BLK-500	TW200- BLU /BLK-500
 Brown Trace	NA		TW100- BLU /BRN-500	NA
 Dark Green Trace	TW050- BLU /D-GRN-500		TW100- BLU /D-GRN-500	TW200- BLU /D-GRN-500
 Grey Trace	TW050- BLU /GRY-500		TW100- BLU /GRY-500	NA
 Orange Trace	NA		TW100- BLU /ONG-500	NA
 Pink Trace	NA		NA	NA
 Red Trace	TW050- BLU /RED-500		TW100- BLU /RED-500	TW200- BLU /RED-500
 White Trace	TW050- BLU /WHT-500		TW100- BLU /WHT-500	TW200- BLU /WHT-500
 Yellow Trace	TW050- BLU /YEL-500		TW100- BLU /YEL-500	NA

Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – Brown Trace Variations











Colour		0.5mm ²	1.0mm ²	2.0mm ²
 Black Trace	NA		TW100- BRN /BLK-500	NA
 Blue Trace	NA		TW100- BRN /BLU-500	TW200- BRN /BLU-500
 Dark Green Trace	NA		TW100- BRN /D-GRN-500	NA
 Grey Trace	NA		TW100- BRN /GRY-500	TW200- BRN /GRY-500
 Orange Trace	NA		TW100- BRN /ONG-500	TW200- BRN /ONG-500
 Pink Trace	NA		TW100- BRN /PNK-500	TW200- BRN /PNK-500
 Purple Trace	NA		TW100- BRN /PUR-500	TW200- BRN /PUR-500
 Red Trace	NA		TW100- BRN /RED-500	NA
 White Trace	TW050- BRN /WHT-500		TW100- BRN /WHT-500	TW200- BRN /WHT-500
 Yellow Trace	TW050- BRN /YEL-500		TW100- BRN /YEL-500	TW200- BRN /YEL-500

Items marked as NA can be supplied for an additional fee. Lead times apply.









Cable

Thin Wall Cable – Dark Green Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
	Black Trace	NA	TW100-D-GRN/BLK-500	TW200-D-GRN/BLK-500
	Blue Trace	NA	TW100-D-GRN/BLU-500	NA
	Brown Trace	TW050-D-GRN/BRN-500	TW100-D-GRN/BRN-500	TW200-D-GRN/BRN-500
	Grey Trace	NA	TW100-D-GRN/GRY-500	NA
	Orange Trace	NA	TW100-D-GRN/ONG-500	NA
	Pink Trace	NA	TW100-D-GRN/PNK-500	NA
	Purple Trace	NA	TW100-D-GRN/PUR-500	TW200-D-GRN/PUR-500
	Red Trace	TW050-D-GRN/RED-500	TW100-D-GRN/RED-500	TW200-D-GRN/RED-500
	White Trace	TW050-D-GRN/WHT-500	TW100-D-GRN/WHT-500	TW200-D-GRN/WHT-500
	Yellow Trace	NA	TW100-D-GRN/YEL-500	NA







Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – Green Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
	Black Trace	TW050-GRN/BLK-500	NA	NA
	Brown Trace	NA	NA	NA
	Dark Green Trace	NA	NA	NA
	Purple Trace	NA	NA	NA
	Red Trace	NA	NA	NA
	Yellow Trace	TW050-GRN/YEL-500	NA	NA

Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – Grey Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
	Black Trace	TW050-GRY/BLK-500	TW100-GRY/BLK-500	NA
	Blue Trace	NA	TW100-GRY/BLU-500	NA
	Purple Trace	NA	TW100-GRY/PUR-500	NA
	Red Trace	NA	TW100-GRY/RED-500	NA
	White Trace	NA	TW100-GRY/WHT-500	NA
	Yellow Trace	NA	NA	NA







Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – Orange Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
	Black Trace	NA	TW100- ONG /BLK-500	NA
	Blue Trace	TW050- ONG /BLU-500	TW100- ONG /BLU-500	NA
	Brown Trace	NA	TW100- ONG /BRN-500	NA
	Dark Green Trace	NA	TW100- ONG /D-GRN-500	NA
	Purple Trace	NA	TW100- ONG /PUR-500	NA
	Red Trace	TW050- ONG /RED-500	NA	NA
	White Trace	NA	TW100- ONG /WHT-500	NA
	Yellow Trace	NA	NA	NA

Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – Pink Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
	Black Trace	TW050- PNK /BLK-500	TW100- PNK /BLK-500	NA
	Blue Trace	NA	TW100- PNK /BLU-500	NA
	Brown Trace	NA	TW100- PNK /BRN-500	NA
	Dark Green Trace	NA	TW100- PNK /D-GRN-500	NA
	Grey Trace	NA	TW100- PNK /GRY-500	NA
	White Trace	NA	TW100- PNK /WHT-500	TW200- PNK /WHT-500
	Yellow Trace	NA	TW100- PNK /YEL-500	NA

Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – Purple Trace Variations










Colour		0.5mm ²	1.0mm ²	2.0mm ²
	Black Trace	NA	TW100- PUR /BLK-500	NA
	Blue Trace	NA	TW100- PUR /BLU-500	NA
	Dark Green Trace	NA	TW100- PUR /D-GRN-500	NA
	Grey Trace	NA	TW100- PUR /GRY-500	NA
	Orange Trace	NA	TW100- PUR /ONG-500	NA
	Pink Trace	NA	TW100- PUR /PNK-500	NA
	Red Trace	TW050- PUR /RED-500	TW100- PUR /RED-500	NA
	White Trace	TW050- PUR /WHT-500	TW100- PUR /WHT-500	NA
	Yellow Trace	NA	TW100- PUR /YEL-500	NA

Items marked as NA can be supplied for an additional fee. Lead times apply.













Cable

Thin Wall Cable – Red Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
	Black Trace	TW050-RED/BLK-500	TW100-RED/BLK-500	TW200-RED/BLK-500
	Blue Trace	NA	TW100-RED/BLU-500	TW200-RED/BLU-500
	Brown Trace	NA	TW100-RED/BRN-500	NA
	Dark Green Trace	TW050-RED/D-GRN-500	TW100-RED/D-GRN-500	TW200-RED/D-GRN-500
	Grey Trace	NA	TW100-RED/GRY-500	TW200-RED/GRY-500
	Orange Trace	NA	TW100-RED/ONG-500	NA
	Purple Trace	TW050-RED/PUR-500	TW100-RED/PUR-500	NA
	White Trace	TW050-RED/WHT-500	TW100-RED/WHT-500	TW200-RED/WHT-500
	Yellow Trace	TW050-RED/YEL-500	TW100-RED/YEL-500	TW200-RED/YEL-500

Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – White Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
	Black Trace	TW050-WHT/BLK-500	TW100-WHT/BLK-500	TW200-WHT/BLK-500
	Blue Trace	TW050-WHT/BLU-500	TW100-WHT/BLU-500	NA
	Brown Trace	TW050-WHT/BRN-500	TW100-WHT/BRN-500	NA
	Dark Green Trace	TW050-WHT/D-GRN-500	TW100-WHT/D-GRN-500	TW200-WHT/D-GRN-500
	Grey Trace	TW050-WHT/GRY-500	TW100-WHT/GRY-500	TW200-WHT/GRY-500
	Orange Trace	NA	TW100-WHT/ONG-500	TW200-WHT/ONG-500
	Pink Trace	NA	TW100-WHT/PNK-500	NA
	Purple Trace	NA	TW100-WHT/PUR-500	TW200-WHT/PUR-500
	Red Trace	TW050-WHT/RED-500	TW100-WHT/RED-500	TW200-WHT/RED-500
	Yellow Trace	TW050-WHT/YEL-500	TW100-WHT/YEL-500	TW200-WHT/YEL-500

Items marked as NA can be supplied for an additional fee. Lead times apply.

Thin Wall Cable – Yellow Trace Variations

Colour		0.5mm ²	1.0mm ²	2.0mm ²
	Black Trace	TW050-YEL/BLK-500	TW100-YEL/BLK-500	TW200-YEL/BLK-500
	Blue Trace	NA	TW100-YEL/BLU-500	NA
	Brown Trace	NA	TW100-YEL/BRN-500	NA
	Dark Green Trace	TW050-YEL/D-GRN-500	TW100-YEL/D-GRN-500	TW200-YEL/D-GRN-500
	Grey Trace	NA	NA	NA
	Orange Trace	NA	TW100-YEL/ONG-500	NA
	Pink Trace	NA	TW100-YEL/PNK-500	NA
	Red Trace	TW050-YEL/RED-500	TW100-YEL/RED-500	TW200-YEL/RED-500
	White Trace	TW050-YEL/WHT-500	TW100-YEL/WHT-500	TW200-YEL/WHT-500

Items marked as NA can be supplied for an additional fee. Lead times apply.



Cable

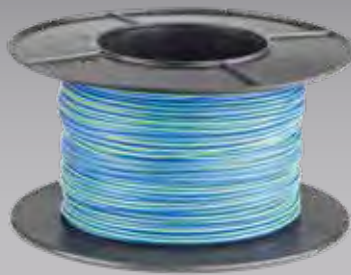
Single Cable – Trace Variations



T1-6-RED-100



T1-3-PUR-30



T1-4-BLU/YEL-100



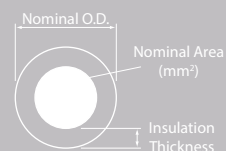
T1-3-YEL/GRN-100

- RoHS Compliant.
- UV Stabilised V90HT PVC insulation.
- Oxygen free, high conductivity copper.
- Wide range of colours, sizes and lengths.
- Made in Australia.

Conductor : Annealed Electrolytic Copper
Insulation : UV Stabilised V90HT PVC
Max. Voltage : 50V
Approvals : RoHS
Max. Operating Temperature : 90°C







	T1-3	T1-4	T1-5	T1-6
Industry Equivalent mm :	3	4	5	6
Nominal Area (mm ²) :	1.13	1.84	2.9	4.59
Strand Count :	14	23	36	57
Strand Diameter (mm) :	0.32	0.32	0.32	0.32
Nominal O.D. (mm) :	2.2	2.3	3.0	4.0



T1-4-GRN/RED-100








Single Cable – Green Trace Variations

Colour	Roll Length	Industry Equivalent mm*	
		3mm	4mm
 Red Trace	30m	—	—
 White Trace	30m	T1-3-GRN/WHT-30	T1-4-GRN/WHT-30
	100m	—	T1-4-GRN/WHT-100
 Yellow Trace	30m	T1-3-GRN/YEL-30	—
	100m	—	T1-4-GRN/YEL-100
 Black Trace	100m	—	T1-4-GRN/BLK-100
	100m	T1-3-GRN/BRN-100	—

* Industry term for identifying cable size not conductor size (Nominal Area).

Single Cable – Red Trace Variations

Colour	Roll Length	Industry Equivalent mm*	
		3mm	4mm
 Green Trace	30m	T1-3-RED/GRN-30	—
	100m	—	T1-4-RED/GRN-100
 White Trace	30m	T1-3-RED/WHT-30	T1-4-RED/WHT-30
	100m	—	—
 Yellow Trace	30m	T1-3-RED/YEL-30	—
	100m	—	T1-4-RED/YEL-100
 Blue Trace	30m	T1-3-RED/BLU-30	—
	100m	T1-3-RED/BLU-100	T1-4-RED/BLU-100
 Black Trace	30m	T1-3-RED/BLK-30	—
	100m	—	T1-4-RED/BLK-100

* Industry term for identifying cable size not conductor size (Nominal Area).

Single Cable – Brown Trace Variations



Colour	Roll Length	Industry Equivalent mm*	
		3mm	4mm
 White Trace	30m	T1-3-BRN/WHT-30	T1-4-BRN/WHT-30

* Industry term for identifying cable size not conductor size (Nominal Area).



Cable

Single Cable – Yellow Trace Variations

Colour	Roll Length	Industry Equivalent mm*	
		3mm	4mm
 Green Trace	100m	T1-3-YEL/GRN-100	—
 Red Trace	100m	T1-3-YEL/RED-100	—
 Blue Trace	30m	T1-3-YEL/BLU-30	T1-4-YEL/BLU-30
	100m	T1-3-YEL/BLU-100	—




* Industry term for identifying cable size not conductor size (Nominal Area).

Single Cable – White Trace Variations

Colour	Roll Length	Industry Equivalent mm*	
		3mm	4mm
 Red Trace	100m	—	T1-4-WHT/RED-100
 Blue Trace	30m	T1-3-WHT/BLU-30	—
 Black Trace	30m	T1-3-WHT/BLK-30	—
	100m	—	T1-4-WHT/BLK-100
 Brown Trace	30m	T1-3-WHT/BRN-30	—






* Industry term for identifying cable size not conductor size (Nominal Area).

Single Cable – Blue Trace Variations

Colour	Roll Length	Industry Equivalent mm*	
		3mm	4mm
 Red Trace	100m	T1-3-BLU/RED-100	T1-4-BLU/RED-100
 White Trace	30m	T1-3-BLU/WHT-30	—
	100m	T1-3-BLU/WHT-100	—
 Yellow Trace	100m	T1-3-BLU/YEL-100	T1-4-BLU/YEL-100












* Industry term for identifying cable size not conductor size (Nominal Area).

Single Cable – Black Trace Variations

Colour	Roll Length	Industry Equivalent mm* 3mm
 Green Trace	30m	T1-3-BLK/GRN-30
 Red Trace	30m	T1-3-BLK/RED-30
 White Trace	100m	T1-3-BLK/RED-100
 Yellow Trace	30m	T1-3-BLK/WHT-30
 Yellow Trace	100m	T1-3-BLK/WHT-100

* Industry term for identifying cable size not conductor size (Nominal Area).

Single Cable – No Trace

Colour	Roll Length	Industry Equivalent mm*			
		3mm	4mm	5mm	6mm
 Black	30m	T1-3-BLK-30	T1-4-BLK-30	T1-5-BLK-30	T1-6-BLK-30
	100m	T1-3-BLK-100	T1-4-BLK-100	T1-5-BLK-100	T1-6-BLK-100
 Blue	30m	T1-3-BLU-30	T1-4-BLU-30	T1-5-BLU-30	T1-6-BLU-30
	100m	T1-3-BLU-100	T1-4-BLU-100	T1-5-BLU-100	T1-6-BLU-100
 Green	30m	T1-3-GRN-30	T1-4-GRN-30	T1-5-GRN-30	T1-6-GRN-30
	100m	T1-3-GRN-100	T1-4-GRN-100	T1-5-GRN-100	T1-6-GRN-100
 Red	30m	T1-3-RED-30	T1-4-RED-30	T1-5-RED-30	T1-6-RED-30
	100m	T1-3-RED-100	T1-4-RED-100	T1-5-RED-100	T1-6-RED-100
 Yellow	30m	T1-3-YEL-30	T1-4-YEL-30	T1-5-YEL-30	T1-6-YEL-30
	100m	T1-3-YEL-100	T1-4-YEL-100	—	T1-6-YEL-100
 White	30m	T1-3-WHT-30	T1-4-WHT-30	T1-5-WHT-30	T1-6-WHT-30
	100m	T1-3-WHT-100	T1-4-WHT-100	T1-5-WHT-100	T1-6-WHT-100
 Brown	30m	T1-3-BRN-30	T1-4-BRN-30	T1-5-BRN-30	T1-6-BRN-30
	100m	T1-3-BRN-100	T1-4-BRN-100	T1-5-BRN-100	—
 Grey	30m	T1-3-GRY-30	T1-4-GRY-30	—	—
	100m	T1-3-GRY-100	T1-4-GRY-100	—	—
 Orange	30m	T1-3-ONG-30	T1-4-ONG-30	T1-5-ONG-30	T1-6-ONG-30
	100m	T1-3-ONG-100	T1-4-ONG-100	—	—
 Pink	30m	T1-3-PNK-30	T1-4-PNK-30	T1-5-PNK-30	—
	100m	T1-3-PNK-100	T1-4-PNK-100	—	—
 Purple	30m	T1-3-PUR-30	T1-4-PUR-30	—	—
	100m	T1-3-PUR-100	T1-4-PUR-100	—	—

* Industry term for identifying cable size not conductor size (Nominal Area).



Cable

Tinned



- Protective tin coating on copper provides:
 - Resistance to corrosion
 - Barrier between materials
 - Improved solderability & contact properties
- High Flexibility.
- Lead free PVC insulation.
- RoHS Compliant.
- V90HT (V105).
- Available in a variety of colours.
- Made in Australia.

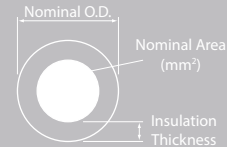


TC-1-ONG-100

Roll Length :
Approvals :
Max. Operating Temperature :

100m
RoHS
105°C

	TC-.75	TC-1	TC-1.5	TC-2.5	TC-4	TC-6
Nominal Area (mm ²) :	0.75	1	1.5	2.5	4.0	6.0
Strand Count :	24	32	30	50	56	84
Strand Diameter (mm) :	0.20	0.20	0.25	0.25	0.30	0.30
Nominal O.D. (mm) :	2.4	2.6	2.9	3.5	4.7	5.46



Single Cable – Tinned

Colour	Nominal Area (mm ²)					
	0.75mm ²	1mm ²	1.5mm ²	2.5mm ²	4.0mm ²	6.0mm ²
Black	TC-.75-BLK-100	TC-1-BLK-100	TC-1.5-BLK-100	TC-2.5-BLK-100	TC-4-BLK-100	TC-6-BLK-50
Blue	TC-.75-BLU-100	TC-1-BLU-100	TC-1.5-BLU-100	TC-2.5-BLU-100	—	—
Brown	TC-.75-BRN-100	TC-1-BRN-100	TC-1.5-BRN-100	TC-2.5-BRN-100	—	—
Green	—	TC-1-GRN-100	TC-1.5-GRN-100	TC-2.5-GRN-100	—	—
Grey	TC-.75-GRY-100	TC-1-GRY-100	TC-1.5-GRY-100	TC-2.5-GRY-100	—	—
Orange	TC-.75-ONG-100	TC-1-ONG-100	TC-1.5-ONG-100	—	—	—
Pink	TC-.75-PNK-100	—	TC-1.5-PINK-100	TC-2.5-PINK-100	—	—
Purple	TC-.75-PUR-100	TC-1-PUR-100	TC-1.5-PUR-100	TC-2.5-PUR-100	—	—
Red	TC-.75-RED-100	TC-1-RED-100	TC-1.5-RED-100	TC-2.5-RED-100	TC-4-RED-100	TC-6-RED-50
White	TC-.75-WHT-100	TC-1-WHT-100	TC-1.5-WHT-100	TC-2.5-WHT-100	—	—
Yellow	—	TC-1-YEL-100	TC-1.5-YEL-100	TC-2.5-YEL-100	—	—



Twin Sheathed Cable – Tinned (White Sheath)

Part No	Industry Equivalent mm*	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor
TC2-3-WHT-30	3mm	30	1.13	3.5 x 5.9	16 / 0.30
TC2-3-WHT-100	3mm	100	1.13	3.5 x 5.9	16 / 0.30
TC2-4-WHT-30	4mm	30	1.84	3.9 x 6.7	26 / 0.30
TC2-4-WHT-100	4mm	100	1.84	3.9 x 6.7	26 / 0.30
TC2-6-WHT-30	6mm	30	4.59	5.5 x 9.5	65 / 0.30

* Industry term for identifying cable size not conductor size (Nominal Area).



Multi Core Cable – Tinned (White Sheath)

Part No	Industry Equivalent mm*	No. of Cores	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor
TC3-4-WHT-50	3	3	50	1.84	6.8	26 / 0.30

* Industry term for identifying cable size not conductor size (Nominal Area).



Twin Core Figure 8 Cable – Tinned

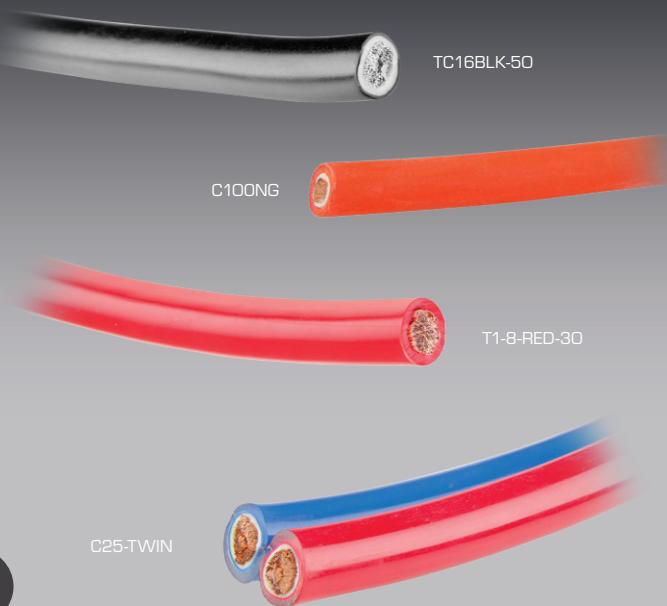
Part No	Industry Equivalent mm*	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor
TC8-3-RED/BLK-50	3mm	50	1.13	2.45 x 5.2	16 / 0.30
TC8-4-RED/BLK-50	4mm	50	1.84	2.80 x 5.9	26 / 0.30

* Industry term for identifying cable size not conductor size (Nominal Area).



Cable

Battery Cable



- Tinned, Double Insulated, Twin and standard available.
- Oxygen free, high conductivity copper.
- UV stabilised insulation.
- Made in Australia.



Conductor : Annealed Electrolytic Copper
Insulation : UV Stabilised V90HT PVC
Max. Voltage : 120V
Approvals : RoHS
Max. Operating Temperature : 90°C

Battery Cable

Part No	Colour	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor	Max. Operating Temperature (°C)	Minimum Bending Radius (mm)
T1-7-BLK-30	Black	30	7.71	5.4	112 / 0.3	90	13
T1-7-BLK-100	Black	100	7.71	5.4	112 / 0.3	90	13
T1-7-RED-30	Red	30	7.71	5.4	112 / 0.3	90	13
T1-7-RED-100	Red	100	7.71	5.4	112 / 0.3	90	13
T1-17-BLK-30	Black	30	13.5	6.6	224 / 0.3	125	16
T1-17-BLK-100	Black	100	13.5	6.6	224 / 0.3	125	16
T1-17-RED-30	Red	30	13.5	6.6	224 / 0.3	125	16
T1-17-RED-100	Red	100	13.5	6.6	224 / 0.3	125	16
T1-36-BLK-30	Black	30	26.45	8.3	350 / 0.3	125	21
T1-36-RED-30	Red	30	26.45	8.3	350 / 0.3	125	21
T1-8-BLK-30	Black	30	32.07	9.7	490 / 0.3	125	24
T1-8-RED-30	Red	30	32.07	9.7	490 / 0.3	125	24
T1-117-BLK-30	Black	30	49	11.3	770 / 0.3	125	28
T1-117-RED-30	Red	30	49	11.3	770 / 0.3	125	28
T1-116-BLK-30	Black	30	64.15	13.1	980 / 0.3	125	33
T1-116-RED-30	Red	30	64.15	13.1	980 / 0.3	125	33

Conductor : Annealed Electrolytic Copper
 Insulation : X-HF-110
 Outer Jacket : LSFLEX® T-10
 Max. Voltage : 600/1000V
 Operating Temperature : -40°C to 125°C



Battery Cable – Double Insulated

Part No	Colour	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor	Minimum Bending Radius (mm)
C10ONG	Orange	*	10	8.3	134 / 0.3	24.9
C16ONG	Orange	*	16	9.3	210 / 0.3	27.9
C16RED-100	Red	100	16	9.3	210 / 0.3	27.9
C25BLK-100	Black	100	25	10.9	329 / 0.3	32.7
C25ONG	Orange	*	25	10.9	329 / 0.3	32.7
C25RED-100	Red	100	25	10.9	329 / 0.3	32.7
C35BLK-100	Black	100	35	12.1	462 / 0.3	36.3
C35ONG	Orange	*	35	12.1	462 / 0.3	36.3
C35RED-100	Red	100	35	12.1	462 / 0.3	36.3
C50BLK-50	Black	50	50	13.7	707 / 0.3	41.1
C50ONG	Orange	*	50	13.7	707 / 0.3	41.1
C50RED-50	Red	50	50	13.7	707 / 0.3	41.1
C70BLK-50	Black	50	70	15.7	980 / 0.3	47.1
C70ONG	Orange	*	70	15.7	980 / 0.3	47.1
C70RED-50	Red	50	70	15.7	980 / 0.3	47.1
C95BLK-50	Black	50	95	17.6	1344 / 0.3	52.8
C95ONG	Orange	*	95	17.6	1344 / 0.3	52.8
C95RED-50	Red	50	95	17.6	1344 / 0.3	52.8
C120BLK-50	Black	50	120	19.6	1672 / 0.3	58.8
C120ONG	Orange	*	120	19.6	1672 / 0.3	58.8
C120RED-50	Red	50	120	19.6	1672 / 0.3	58.8

* This product is modified/cut to customer specifications and is not returnable for credit.



Cable



Conductor : Tinned Annealed Copper
Insulation : UV Stabilised V90HT PVC
Max. Voltage : 120V
Approvals : RoHS
Operating Temperature : 90°C

Battery Cable – Tinned

Roll Length – 50m	Roll Length – 30m	Colour	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor
TC13-BLK-50	—	Black	7.92	5.4	112 / 0.30
TC13-RED-50	—	Red			
TC32-BLK-50	TC32-BLK-30	Black	32.15	10.7	455 / 0.30
TC32-RED-50	TC32-RED-30	Red			



Single Core Double Insulated Rubber
1.9/3.3kV 1100C.

Conductor : Tinned Annealed Copper
Insulation : Special EPR Compound
Outer Jacket : Polychloroprene
Max. Voltage : 1.9/3.3kV
Operating Temperature : -25°C to 110°C

Battery Cable – Double Insulated – Tinned

Part No	Colour	Roll Length (m)	Nom. Area (mm ²)	Max. O.D. (mm)	Conductor
TC16BLK-50	Black	50	16	11.1	123 / 0.41
TC25BLK-50	Black	50	25	13.4	190 / 0.41
TC35BLK-50	Black	50	35	14.6	268 / 0.41
TC50BLK-50	Black	50	50	16.4	384 / 0.41
TC70BLK-50	Black	50	70	18.3	545 / 0.41
TC95BLK-50	Black	50	95	20.8	724 / 0.41
TC120BLK-50	Black	50	120	22.4	926 / 0.41



Conductor : Annealed Electrolytic Copper
Insulation : UV Stabilised Nitril modified PVC
Sheath : Clear V90HT PVC
Max. Voltage : 0.6/1kV
Approvals : RoHS

Battery Cable – Double Insulated Twin

Part No	Colour	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor
C10-TWIN	Red/Blue	10	8.5 x 17.5	144 / 0.3
C16-TWIN	Red/Blue	16	9.7 x 19.5	224 / 0.3
C25-TWIN	Red/Blue	25	11 x 22.5	350 / 0.3
C35-TWIN	Red/Blue	35	12.3 x 25.2	490 / 0.3
C50-TWIN	Red/Blue	50	15 x 31	770 / 0.3

This product is modified/cut to customer specifications and is not returnable for credit.

- High quality single, twin and multi core sheathed cable.
- Oxygen free, high conductivity copper.
- Easy to strip.
- Fine stranded flexible conductor.
- UV Stabilised V90HT PVC.
- Made in Australia.



T1-452-30



T1-164-30



T1-50-30



Conductor : Annealed Electrolytic Copper
Insulation : UV Stabilised V90HT PVC
Max. Voltage : 60V
Max. Operating Temperature : 105°C



Fig 1



Fig 2



Fig 3



Fig 4



Fig 5

Multi Core Cable – Sheathed

Part No	Industry Equivalent mm*	No. of Cores	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor	Fig
T1-48-30	3mm	3	30	1.13	5.9	14 / 0.32	1
T1-48-100	3mm	3	100	1.13	5.9	14 / 0.32	1
T1-109-30	3mm	5	30	1.13	7.3	14 / 0.32	2
T1-109-100	3mm	5	100	1.13	7.3	14 / 0.32	2
T1-115-30	3mm	7	30	1.13	7.9	14 / 0.32	3
T1-115-100	3mm	7	100	1.13	7.9	14 / 0.32	3
T1-451-30	4mm	5	30	1.84	8.4	23 / 0.32	4
T1-451-100	4mm	5	100	1.84	8.4	23 / 0.32	4
T1-452-30	4mm	7	30	1.84	9.1	23 / 0.32	5
T1-452-100	4mm	7	100	1.84	9.1	23 / 0.32	5

* Industry term for identifying cable size not conductor size (Nominal Area).



Cable



Twin Sheathed Cable

Part No	Core Colours	Industry Equivalent mm*	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor
T1-20-100	Red/Black	2mm	100	0.56	3.7 x 5.6	7 / 0.32
T1-10-30	Red/Black	3mm	30	1.13	3.9 x 6.4	14 / 0.32
T1-10-100	Red/Black	3mm	100	1.13	3.9 x 6.4	14 / 0.32
T1-10-100-BRN/WHT	Brown/White	3mm	100	1.13	3.9 x 6.4	14 / 0.32
T1-50-30	Red/Black	4mm	30	1.84	4.0 x 6.5	23 / 0.32
T1-50-100	Red/Black	4mm	100	1.84	4.0 x 6.5	23 / 0.32
T1-27-30	Red/Black	5mm	30	2.90	4.7 x 7.5	36 / 0.32
T1-27-100	Red/Black	5mm	100	2.90	4.7 x 7.5	36 / 0.32
T1-9-30	Red/Black	6mm	30	4.59	6.1 x 9.0	57 / 0.32
T1-9-100	Red/Black	6mm	100	4.59	6.1 x 9.0	57 / 0.32

* Industry term for identifying cable size not conductor size (Nominal Area).



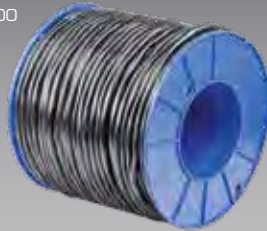
Single Sheathed Cable (GAS)

Part No	Industry Equivalent mm*	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor
T1-162-30	3mm	30	1.13	3.8	14 / 0.32
T1-162-100	3mm	100	1.13	3.8	14 / 0.32
T1-163-30	4mm	30	1.84	4.2	23 / 0.32
T1-163-100	4mm	100	1.84	4.2	23 / 0.32
T1-164-30	6mm	30	4.59	5.7	57 / 0.32
T1-164-100	6mm	100	4.59	5.7	57 / 0.32

* Industry term for identifying cable size not conductor size (Nominal Area).

- Wide variety of cable types including:
 - Twin Core Figure 8
 - Speaker
 - CAN Data
 - Multi Core
 - Coaxial RG58
 - Shielded with drain wire

PH275BK-100



PV12/1G

T1-78-BLK/RED-100



T3-367-100



CC58



Specialty



Twin Core Figure 8 Cable

Part No	Industry Equivalent mm*	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor
T1-78-RED/BLK-100	4mm	100	1.84	3.1 x 6.7	23 / 0.32

* Industry term for identifying cable size not conductor size (Nominal Area).



Speaker Cable

Part No	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor
T3-367-100	100	0.44	1.85 x 3.8	14 / 0.20



Cable

103349, 103349-302



Made in North America

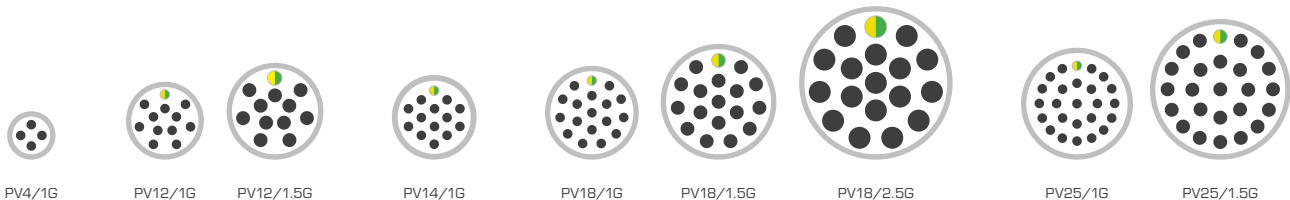
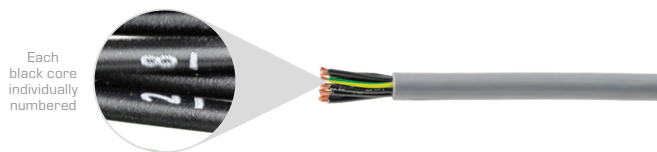


103349B, 103349R

CAN Data Cable

Part No	Description	Core Colours	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor	Max. Operating Temperature (°C)
103349	2 Core. Standard Duty	Yel/Grn	*	0.5	6.14	7 / 0.30	125
103349-302	2 Core. Standard Duty	Yel/Grn	302	0.5	6.14	7 / 0.30	125
103349B	2 Core. Medium Duty	Yel/Grn	*	0.5	7.46	19 / 0.20	125
103349R	2 Core. Heavy Duty	Yel/Grn	*	0.6	7.75	19 / 0.20	125

* This product is modified/cut to customer specifications and is not returnable for credit.



Multi Core Cable – Flexible Control 75°C

Part No	No. of Cores	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor	Core Colours
PV4/1G	4	1.0	6.4	32 x 0.20	4 x Black
PV12/1G	12	1.0	10.3	32 x 0.20	11 x Black, 1 x Earth
PV12/1.5G	12	1.5	12.8	28 x 0.26	11 x Black, 1 x Earth
PV14/1G NEW	14	1.0	11.2	32 x 0.20	13 x Black, 1 x Earth
PV18/1G	18	1.0	12.4	32 x 0.20	17 x Black, 1 x Earth
PV18/1.5G	18	1.5	15.3	28 x 0.26	17 x Black, 1 x Earth
PV18/2.5G	18	2.5	20.3	48 x 0.26	17 x Black, 1 x Earth
PV25/1G	25	1.0	14.8	32 x 0.20	24 x Black, 1 x Earth
PV25/1.5G	25	1.5	18.6	28 x 0.26	24 x Black, 1 x Earth

This product is modified/cut to customer specifications and is not returnable for credit.



Coaxial RG58 Cable

Part No	Shielding Material	Insulation	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor	Electrical Resistance (ohms)
CC58	93% Tinned Copper braided	PE	0.54	4.95	19 / 0.19	50

This product is modified/cut to customer specifications and is not returnable for credit.

PH275BK, PH275BK-100



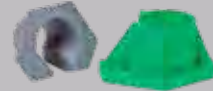
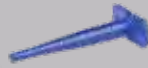
PH375BK, PH375BK-100

Special Cable – Shielded – Drain Wire

Part No	No. of Cores	Colour	Roll Length (m)	Nom. Area (mm ²)	Nom. O.D. (mm)	Conductor	Max. Operating Temperature (°C)
PH275BK	2	Red/Blk	*	0.75	7.2	24 / 0.20	90
PH275BK-100	2	Red/Blk	100	0.75	7.2	24 / 0.20	90
PH375BK	3	Red/Blk/Wht	*	0.75	6.8	24 / 0.20	90
PH375BK-100	3	Red/Blk/Wht	100	0.75	6.8	24 / 0.20	90

*** This product is modified/cut to customer specifications and is not returnable for credit.**





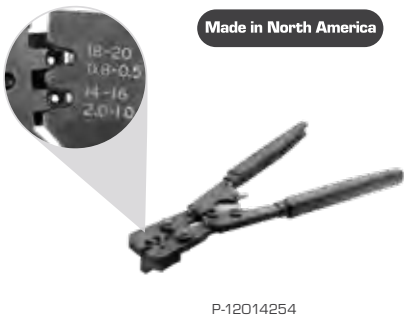


Tools

Crimping Tools	146
Contact Removal Tools	150
Workshop Tools	152
Cable Insertion Tool Set	157



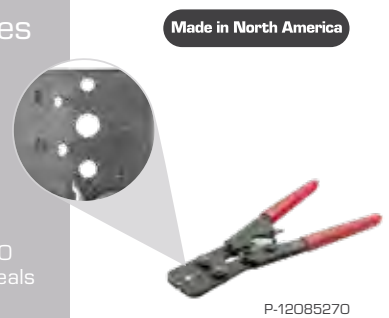
- A wide range of crimping tools to suit popular terminals and connectors.
- Tight, complete crimp with minimal effort.
- HDT-48-00 crimps a wide range of contact sizes with no need to change out dies or locators.
- Tools to suit TE DEUTSCH, Packard™ Weather Pack, Micro-Pack and Metri-Pack contacts.
- D2682 features fine blanked, high carbon steel dies.
- HT-K2680 set features 5 different crimping tools in handy tool chest storage tray.



P-12014254

P-12085270 Crimper Cavities

- **Cavity 1**
150 Series
Metri-Pack Seals
- **Cavity 2**
0.5–0.8mm²
- **Cavity 3**
480 & 630 Series
Metri-Pack Seals
- **Cavity 4**
1.3–2.0mm²
- **Cavity 5**
Weather-Pack & 280
Series Metri-Pack Seals



P-12085270

Crimping Tools – Packard™ Contacts

Part No.	Description	Crimp Range
P-12014254	Ratcheting. Attaches seal & cable in one action	0.8–0.5mm ² (20–18 AWG), 1.0–2.0mm ² (16–14 AWG)
P-12085270	Ratcheting. Attaches seal & cable in two actions	0.8–0.5mm ² (20–18 AWG), 1.0–2.0mm ² (16–14 AWG)

5 Piece Tool Set for Packard™ Contacts

The HT-K2680 set contains tools for:

- Weather Pack — 20, 18, 16, 14, 12 and 10 AWG contacts.
 - Micro-Pack — .64, 100 & 100W and GT 150, 280, 630 contacts.
 - Metri-Pack — 150, 280, 480 & 630.
- All housed in a handy storage tray.

Also included in the set is a 32 page instruction manual detailing tool specifications as well as an OEM contact number/tool number matrix.

All tools in set are premium quality – made in the USA.



Made in North America

IONNIC Crimping Tool Set – Packard™ Contacts

Part No.	Description
HT-K2680	5 Piece crimping tool set for Packard™ contacts, includes instruction manual



DTT-16-00



D7000

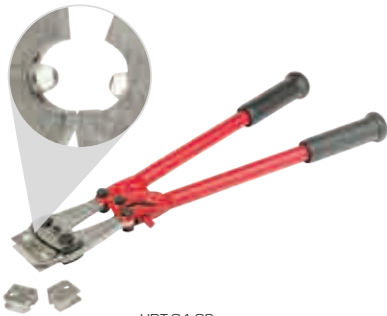
D7000 6 Removable Dies	
Die 1 14, 12AWG	Die 2 10, 12AWG
Die 3 18, 16, 14AWG	Die 4 20, 18, 16AWG
Die 5 20, 18-16AWG	Die 6 16, 14, 12AWG

Crimping Tools – Stamped & Formed (F-Crimp) Contacts

Part No.	Description	Crimp Range (AWG)
DTT-16-00 NEW	Ratcheting. 1 indent crimper "U" crimp	16 & 14
D7000	Ratcheting crimp tool set with 6 removable dies. 1 indent crimper "U" crimp	



DET48



HDT-04-08



DET12, DET16, DET20



D2681



D2682



HDT-50-00



HDT-48-00

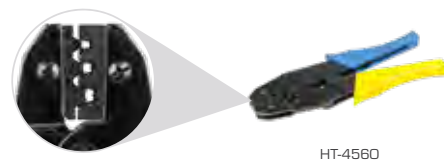
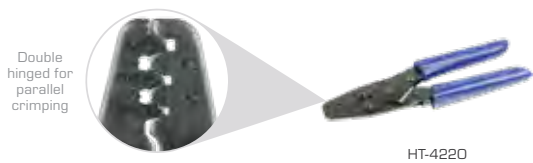
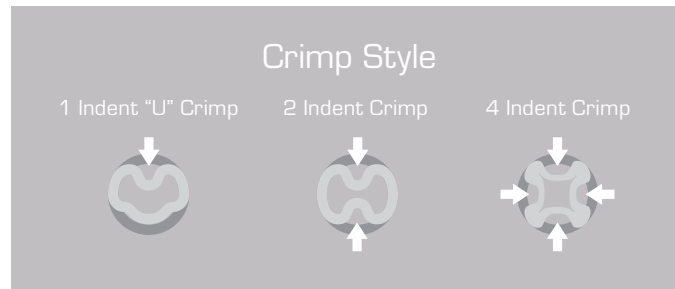
Crimping Tools – TE DEUTSCH Solid Contacts

Part No.	Description	Contact Size (TE DEUTSCH)	Crimp Style
DET48 NEW	Two handed	8, 4	2 indent
HDT-04-08	Two handed	8, 4	2 indent
DET12*	Ratcheting	12	4 indent
DET16*	Ratcheting	16	4 indent
DET20*	Ratcheting	20	4 indent
D2681	Ratcheting	20, 16, 12	2 indent
D2682	Ratcheting	20, 16, 12	2 indent
HDT-50-00	Ratcheting	20, 16, 12	1 indent
HDT-48-00	Ratcheting	20, 16, 12	4 indent

* Not made in North America.

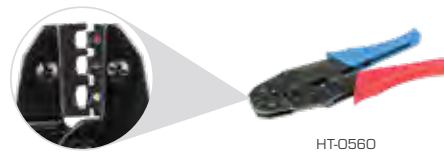
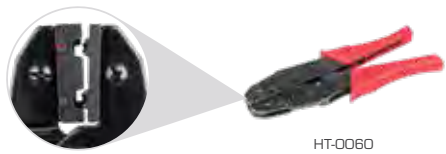


Tools



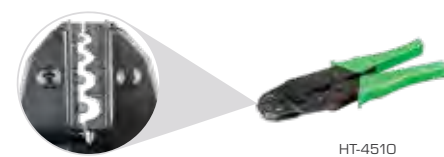
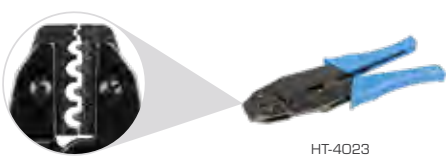
Crimping Tools – F-Crimp Contacts (Non-Insulated)

Part No.	Description	Crimp Range
HT-4220	Parallel crimping	22–24, 20–24, 18–20, 14–18, 14–16 AWG
HT-4560	Ratcheting	0.5–1mm ² , 1.5–2.5mm ² , 4–6mm ²



Crimping Tools – Crimp Terminals (Insulated)

Part No.	Description	Crimp Range
HT-0060	Ratcheting. Suits Insulated Flag Terminals	Red & Blue
HT-0560	Ratcheting	Red, Blue & Yellow



Crimping Tools – Cable Lugs

Part No.	Description	Crimp Range (mm ²)
HT-4023	Ratcheting	0.3–2.5, 4–6, 10, 16
HT-4510	Ratcheting	0.25–1.5, 2.5–4, 6–8, 10



HT-21



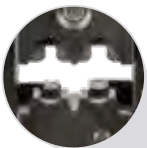
HT-22

Crimping Tools – Crimp Battery Terminals

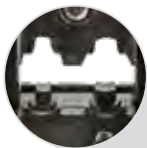
Part No.	Description	Crimp Range (mm ²)
HT-21	Heavy duty hex crimper. Rotating die with 6 sizes. 450mm long	6, 10, 16, 25, 35, 50
HT-22	Extra heavy duty hex crimper. Rotating die with 7 sizes. 650mm long	25, 35, 50, 70, 95, 120, 150



7814145



7814147

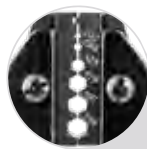


7814146

Made in Europe

Crimping Tools – Schlemmer Contacts

Part No.	Description	Crimp Range (mm ²)	Ø Contact Cavity (mm)
7814145	Ratcheting	0.75–1.5	4
7814147	Ratcheting	0.5–1.0 & 1.5–2.5	5.2
7814146	Ratcheting	0.5–1.0 & 1.5–2.5	6.7



HT-0460



HT-0580

Crimping Tools – Misc.

Part No.	Description	Crimp Range
HT-0460	Ratcheting. Suiting Coax Cable RG58, Mini59 & RG174	—
HT-0580	Ratcheting. Pre-insulated end sleeve (bootlace) ferrules	0.25–6mm ² (23–10 AWG)

AWG to mm²

American Wire Gauge (AWG)	Diameter (mm)	Nominal Area (mm ²)	American Wire Gauge (AWG)	Diameter (mm)	Nominal Area (mm ²)	American Wire Gauge (AWG)	Diameter (mm)	Nominal Area (mm ²)
4	5.19	21.14	12	2.05	3.31	20	0.81	0.52
6	4.11	13.29	14	1.63	2.08	22	0.65	0.33
8	3.26	8.36	16	1.29	1.31	24	0.51	0.20
10	2.59	5.26	18	1.02	0.82			





D2683

- Removes contact from connector without damage to the wire, insulation, connector seals, or connector body.
- Simplifies contact removal and field service repair.
- Compact and easy to use.



7704496



DET-RT



0411-337-1205



Made in North America



114009



114008



0411-353-0805



114010



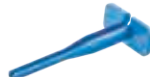
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0411-291-1405



0411-310-1605



0411-336-1605



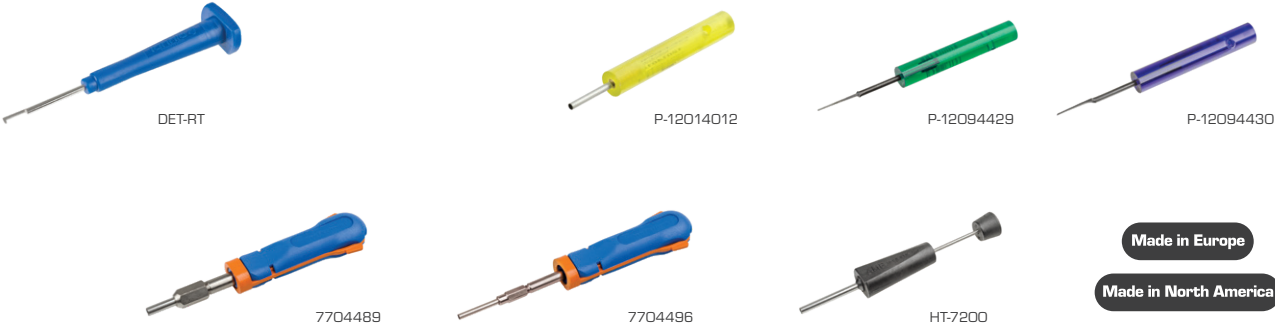
0411-204-1605



0411-240-2005

TE DEUTSCH Contact Removal Tools

Part No.	Contact Size (TE DEUTSCH)	Wire Gauge Size (AWG)	Colour	Notes
114009	4	6	White	
114008	8	8, 10	Green	
0411-353-0805	8	8, 10	Green	Extended
114010	12	12	Yellow	
0411-337-1205	12	12, 14	Orange	Extra Thin Wall (E-Seal)
0411-291-1405	14	14, 16	Green	
0411-310-1605	16	16, 18	Light Blue	
0411-336-1605	16	16, 18	Blue	
0411-204-1605	16	16, 18	Dark Blue	Extra Thin Wall (E-Seal)
0411-240-2005	20	20, 24	Red	

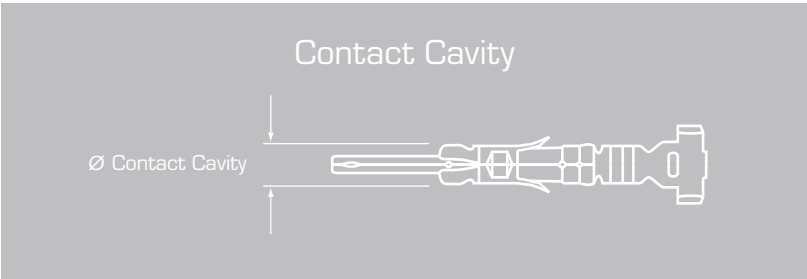


Made in Europe

Made in North America

Contact Removal Tools – Generic

Part No.	Description
DET-RT	Multi-use Hook Tool
P-12014012	Weather-Pack Pin Extraction Tool
P-12094429	Metri-Pack Removal Tool – GT150, GT280, 150, 280, 630 Pull-to-Seat
P-12094430	Metri-Pack Removal Tool – 280, 480, 630, 800 Series Pin Tangless
7704489	Ø Contact Cavity 5.2mm
7704496	Ø Contact Cavity 3.3mm
HT-7200	Ø Contact Cavity 2.9mm



TE DEUTSCH Contact Removal Tool Set

Part No.	Contact Size (TE DEUTSCH)
D2683	4, 8, 12, 14, 16, 20



- Wide range of workshop tools including:
 - Cable cutters
 - Wire strippers
 - Multimeters
 - Compartment boxes and more



HT-15



HT-6130



HT-6100



HT-6130



HT-6180



HT-6325

Multimeters

Part No.	Description
HT-6100	Multimeter Voltage AC/DC. Current DC. Overload alarm. Auto power off
HT-6130	High range. 3" display. Supplied with case Voltage AC/DC (non-contact AC). Current AC/DC. Data hold VFC, resistance, diode, capacitance, frequency, temperature (°C & °F)
HT-6180	Mid Range. 2.5" display Voltage AC/DC (non-contact AC). Current AC/DC VFC, resistance, diode, capacitance, frequency, temperature (°C & °F)
HT-6325	Lead kit. Suits HT-6100, HT-6130 and HT-6180



Workshop Tools

Part No.	Description
HT-2400	Contact cleaner "IPA"
HT-2449	Butane gas refill
HT-2495	Pro torch
HT-2496	Pro torch tip replacement
HT-2490 NEW	Soldering iron – gas powered (cordless). 30–125W. 250°C ~ 550°C. ~120mins
HT-6200	Digital vernier caliper – carbon fibre. Max. length 150mm
HT-6500	Test light. 12V. 1.2m cable
HT-6600	LED test light. 12V. 1.5m cable. Heavy duty
EGG50	Senson electro guard grease. 50ml
HT-6000	Harness tool set



SOLDERRC.7



SOLDERAC3.2



SOLDERSTICK

Solder

Part No.	Ø (mm)	Weight (g)	Description
SOLDERRC.7	0.7	500	Resin core
SOLDERRC1.6	1.6	500	Resin core
SOLDERRC2.3	2.3	500	Resin core
SOLDERRC3.2	3.2	500	Resin core
SOLDERAC3.2	3.2	500	Acid core
SOLDERSTICK	6	—	400mm cut length



Tools



HT-10



HT-11



HT-12



HT-14



HT-15



HT-16



HT-30



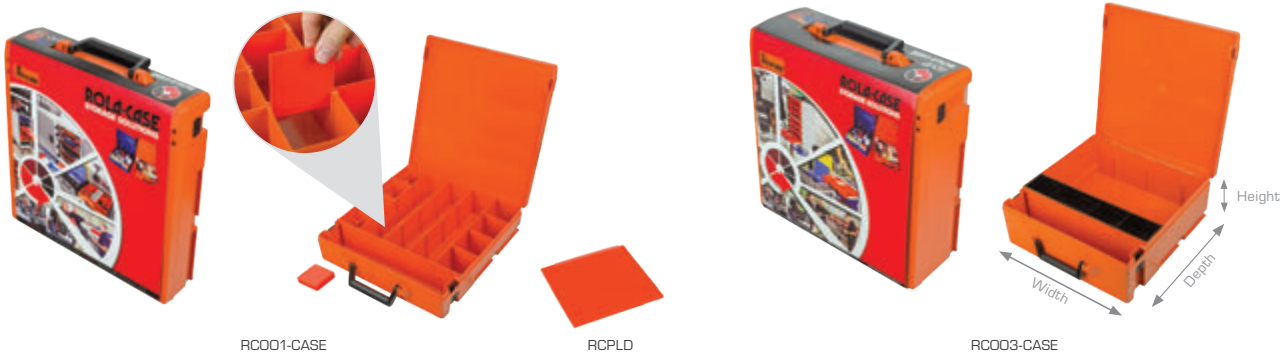
HT-31



HT-34

Cable/Wire Tools

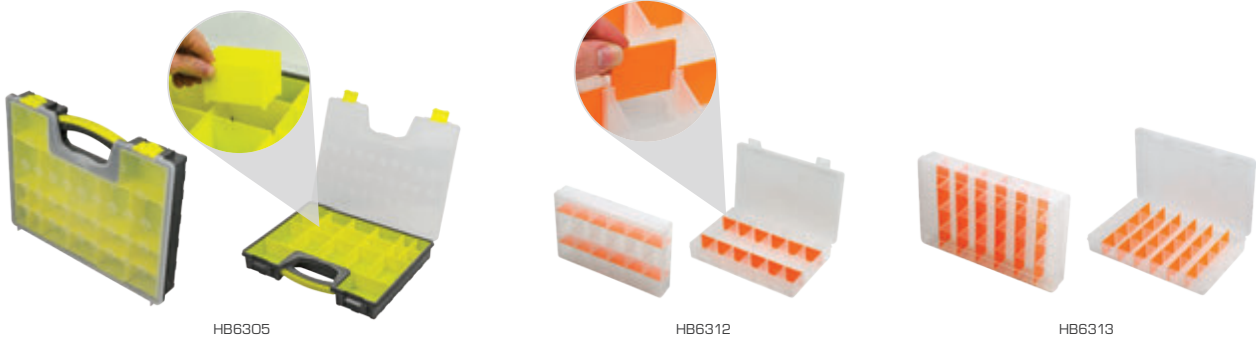
Part No.	Description
HT-10	Cable cutter – Up to 35mm ²
HT-11	Cable cutter – Up to 70mm ²
HT-12	Cable cutter – Up to 300mm ²
HT-14	Side cutters – Knipex – 250mm
HT-15	Side cutters – Knipex – 180mm
HT-16	Side cutters – 115mm
HT-30	Wire stripper/cutter
HT-31	Wire stripper/cutter – heavy duty
HT-34	Cable tie gun heavy duty – metal. Cuts 2.5mm – 4.8mm width



RC001-CASE

RCPLD

RC003-CASE



HB6305

HB6312

HB6313



HB9025A

HB9025C

Compartment Boxes

Part No.	Description	Height (mm)	Width (mm)	Depth (mm)
RC001-CASE	Rola-Case®. Removable dividers	85	370	370
RCPLD	Rola-Case® Divider (individual). Suits RC001-CASE			
RC003-CASE	Rola-Case®	130	370	370
HB6305	Compartment Box. Removable compartments	50	420	320
HB6312	Compartment Box. Removable dividers	40	275	170
HB6313	Compartment Box. Removable dividers	45	350	220
HB9025A NEW	Compartments: 20 x smaller, 1 x large	45	370	250
HB9025C NEW	Compartments: 16 x small, 2 x shallow, 1 x large shallow	45	370	250



Tools

Made in Europe



Fig 1



Fig 2



Fig 3



Fig 4

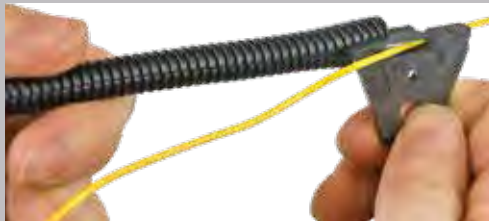
Conduit Tools

Part No.	Description	Suitable Conduit Size (NW)	Suits	Fig
9001511	Single cable insertion tool	6 – 13	Lockable & Split	1
9001520	Universal cable insertion tool with offset flange	10 – 26	Lockable & Split	2
9001543	Universal cable insertion tool – small	8.5 – 12	Lockable & Split	3
9001550	Universal cable insertion tool – large	13 – 26	Lockable & Split	3
9001558	Closing tool for PPmod Lockable conduit – Black	8.5 V	Lockable	4
9001561	Closing tool for PPmod Lockable conduit – Grey	11 V	Lockable	4
9001552	Closing tool for PPmod Lockable conduit – Blue	13 V	Lockable	4
9001567	Closing tool for PPmod Lockable conduit – Yellow	15 V	Lockable	4
9001555	Closing tool for PPmod Lockable conduit – Green	19 V	Lockable	4
9001564	Closing tool for PPmod Lockable conduit – Red	26 V	Lockable	4

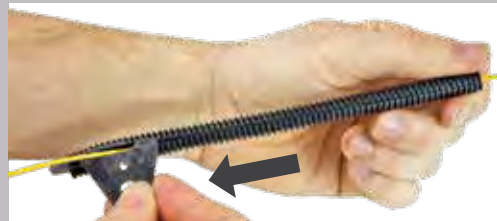
Using Conduit Tools



Single Cable Insertion Tool



Insert the point of the single cable insertion tool into end of conduit with cable as shown.



While holding end of conduit with cable, pull the insertion tool down the length of conduit.



Universal Cable Insertion Tool



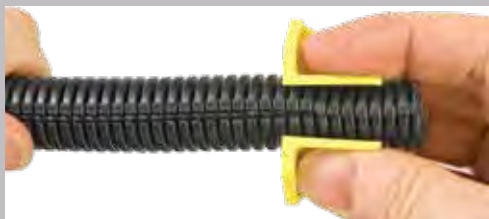
Insert tool wedge containing wires into conduit split.



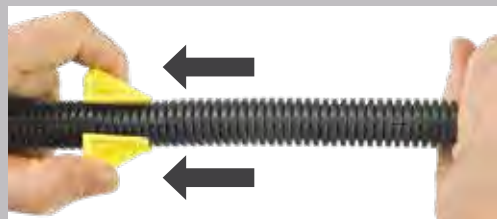
Drag insertion tool down the length of conduit whilst holding cables.



Closing Tool



Pinch one end of PPmod Lockable conduit closed and squeeze on closing tool.



While holding one end pull the locking tool down the length of conduit.

- 5 piece set suiting cable bundles from 9.5mm to 31mm in diameter.
- Quick and easy method of inserting cable bundles into wrap style harness protection/sleeving.
- Protects cables from abrasion damage while inserting into sleeving.
- Ideal for use with the IDNNIC range of ION-Guard™ Guard-Wrap sleeving, for more info see page 55.



Material : Outer Polypropylene RMS-268
Inner Polyacetal RMS-267

Using Wrap Insertion Tools



1. Rotate inner white section to open position to allow the insertion of cable bundle.



2. Rotate inner white section so cables can not fall out.



3. Slide the open end of wrap over the point of the insertion tool.



4. Hold cable and wrap together at one end and pull tool down along cable bundle.

Individual Tool Sizes

Suits cable bundles up to the following sizes:

- 

Ø 9.5mm.
Matching Guard-Wrap SSV-005, SSV-008 SSV-010.
- 

Ø 16mm.
Matching Guard-Wrap SSV-013.
- 

Ø 20mm.
Matching Guard-Wrap SSV-016.
- 

Ø 24.5mm.
Matching Guard-Wrap SSV-019.
- 

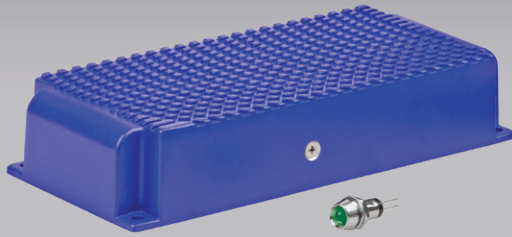
Ø 31mm.
Matching Guard-Wrap SSV-025.

Cable Insertion Tool Set 

Part No.	Description
HT-HWKIT	5 piece set suiting cable bundles from Ø9.5mm to Ø31mm







Electronics

Voltage Converters	160
RCD/GPO Inverters	163
Pure Sine Wave Inverters	164
Chargers/Maintainers	166
AC to DC Battery Chargers	168
DC to DC Battery Chargers	169
Power Supplies	170
Battery Separators	171
Low Battery Cutout	172
Digital Inclinometer	173
Battery Monitor Plus	174
Battery Monitor	176
Hour Meters	177
Flasher Units	178
Brake Controllers	179
Idle Timers	180



P5027



ED-DC1224-10



- High efficiency & long life.
- Easy to install.
- Transient, short circuit, over-voltage & over temperature protected.
- Multiple ED series units can be installed to modify overall output.
- P5027M model features radio memory function.
- NG models & REC2412-30 encapsulated for enhanced resistance to vibration and humidity.
- NG models & REC2412-30 come with an LED status indicator.
- 2 or 5 year warranty.

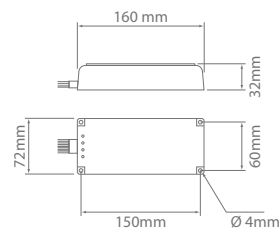
Approvals :

ED Series, P502 Series
ED Series

C-Tick
CE
RoHS



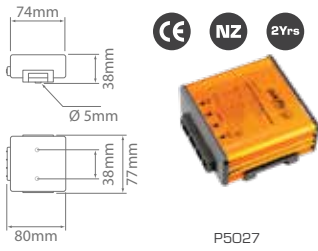
LED status indicator



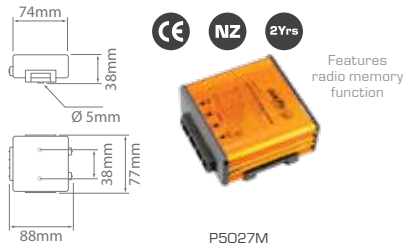
Voltage Converters – Multi Circuit

Part No.	Function	Input Voltage	Output Voltage	Circuits	Power Rating (W)	Weight (kg)
NGVR11	Reducer	24	12	4	450	0.4

For use with incandescent and LED lighting only.



P5027



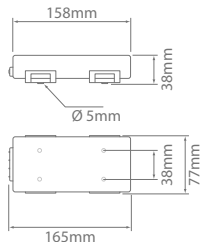
P5027M



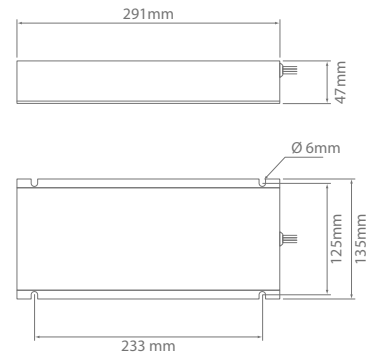
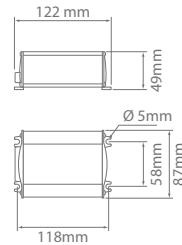
VR4



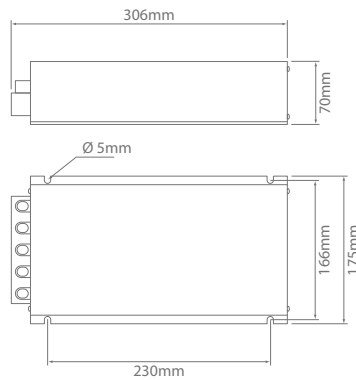
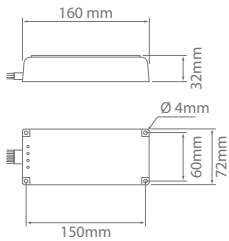
P5028



ED-DC2412-20



REC2412-30NG



REC1260



Voltage Converters

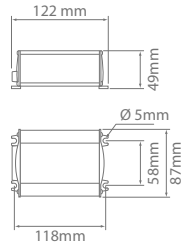
Part No.	Function	Input Voltage	Output Voltage	Circuits	Current Rating (A)	Weight (kg)
P5027	Reducer	15 – 38	13.2	1	10	0.2
P5027M*	Reducer	15 – 38	13.2	1	10	0.2
P5028	Reducer	18 – 38	13.2	1	20	0.3
VR4	Reducer	20 – 30	13.5	1	14	1.0
ED-DC2412-20	Reducer	20 – 30	13.8	1	20	0.5
REC2412-30NG	Reducer/Equaliser	22 – 30	15	1	40	0.6
REC1260	Reducer/Equaliser	22 – 30	15	1	60	2.6

* Features 12V/100mA accessory switched output (radio memory function).

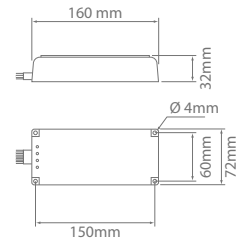




ED-DC1224-10

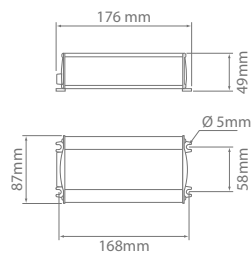


VDBC1224-20



Voltage Converters – Doublers

Part No.	Function	Input Voltage	Output Voltage	Circuits	Current Rating (A)	Weight (kg)
ED-DC1224-10	Doubler	9 – 18	25	1	10	0.5
VDBC1224-20	Charger/Doubler	11.5 – 15.5	29	1	20	0.6



Isolated Voltage Converter

Isolated voltage converters (also known as Galvanic Isolated) provide full dielectric isolation (no electric contact) between input and output circuits by means of a high frequency converter, which may be a safety requirement for certain applications.

Isolated units also have strong noise and interference blocking capabilities thus providing a cleaner DC source for sensitive loads.

Typical applications requiring isolated voltage converters are – Communications, Entertainment & Navigation Systems, Forklifts etc.

Voltage Converters – Galvanic Isolation

Part No.	Function	Input Voltage	Output Voltage	Circuits	Current Rating (A)	Weight (kg)
ED-DC1212-15G	Equaliser	9 – 18	12.5	1	15	0.6
ED-DC2412-15G NEW	Equaliser	20 – 35	12.5	1	15	0.6
ED-DC2424-7.5G	Equaliser	20 – 35	24	1	7.5	0.6
ED-DC1224-7.5G	Doubler	9 – 18	24	1	7.5	0.6

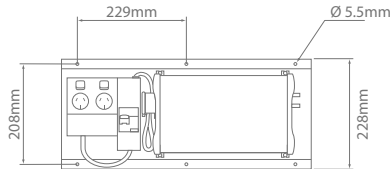
- AS/NZ 4763-2011 approved portable inverter.
- Pure sine wave output.
- RCD switch with M.E.N. ensures work place safety.
- High surge capacity.
- Transient, short circuit, over-voltage & over temperature protected.
- Audio alarm & warning/error codes for easy diagnosis.
- Remote switch panel included.
- 5 year warranty.
- Ideal for telecommunication, emergency, council vehicles, caravan, camper trailer & marine applications.



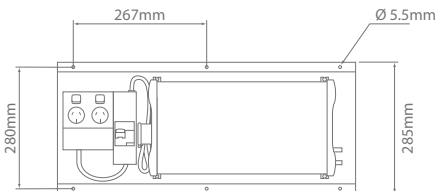
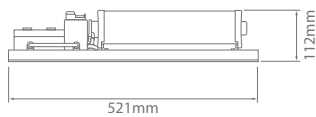
ED-IV1012R



Input Voltage : 10.5–15.5VDC
AC Output : 230VAC 50Hz
General Power Outlet : 2
Cable Length : Remote Panel 6m
Approvals : CE, C-Tick & 'e' marked
Operating Temperature : 0°C to 40°C



ED-IV1012R



ED-IV2012R



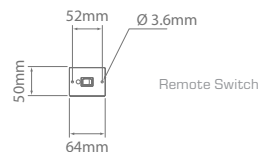
Double pole dual GPO
(General Power Outlet)

RCD (Residual-Current
Device) Safety Switch

Remote switch panel
with 6m cable



ED-IV1012R



RCD/GPO Inverters

Part No.	Output Power (W)	Output Current (A)	Weight (kg)
ED-IV1012R	1000	4.3	5.5
ED-IV2012R	2000	8.7	8.5





ED-IV1824

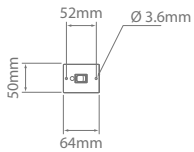


ED-IV1012

- Pure sine wave output.
- Light & compact.
- High surge capacity.
- Transient, short circuit, over-voltage & over temperature protected.
- Audio alarm & warning/error codes for easy diagnosis.
- 12V & 24V models available.
- Australian general power outlets on most models.
- Most models include a 5V USB port.
- LCD panel for control and monitoring on select models.
- Switch panels can be remotely mounted.
- 2 or 5 year warranty.



AC Output : 230VAC 50Hz
 USB Output : *Model specific 5V 750mA
 Approvals : CE, C-Tick & 'e' marked
 Operating Temperature : 0°C to 40°C



Remote Switch Panel

Australian GPO



5V USB charging port

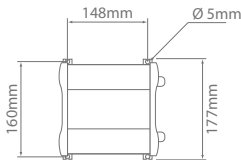


ED-IV2012

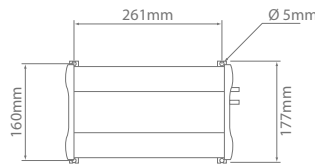
5Yrs



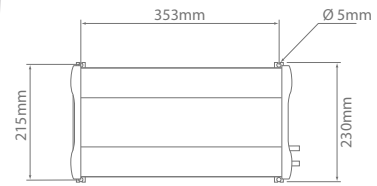
Remote switch panel with 6m cable



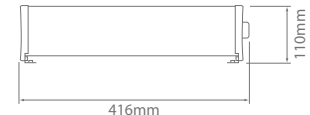
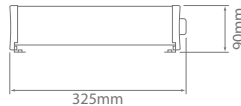
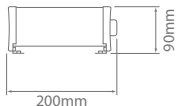
ED-IV4012



ED-IV1012



ED-IV2012



Pure Sine Wave Inverters

Part No.	Input Voltage	Output Power (W)	Output Current (A)	Outlet	Weight (kg)
ED-IV4012	12	400	1.74	1	1.7
ED-IV1012	12	1000	4.3	1	2.9
ED-IV2012	12	2000	8.7	2	5.5



ED-IV1024, ED-IV1824



ED-IV2012X, ED-IV2024X

Pure Sine Wave Inverters – LCD Panel

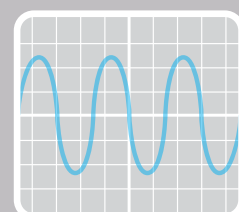
Part No.	Input Voltage	Output Power (W)	Output Current (A)	Outlet	Weight (kg)
ED-IV1024	24	1000	4.3	1	7.0
ED-IV1824	24	1800	7.8	1	7.5
ED-IV2012X NEW	12	2000	8.7	1	5.5
ED-IV2024X NEW	24	2000	8.7	1	5.5

Pure Sine Wave

Pure sine wave inverters produce current that is close to grid AC output.

There are many advantages to pure sine wave inverters over others:

- Reliably powers devices that will not work with modified sine wave inverters.
- Very low harmonic distortion and clean power similar to utility supplied electricity.
- Inductive loads like microwaves and motors run faster, quieter and cooler.
- Reduces audible and electrical noise in fans, fluorescent lights, audio amplifiers, TV, fax and answering machines.
- Prevents crashes in computers, weird print outs and glitches in monitors.



NEW

ED-SPI-1224



ED-SPI-2

- Microprocessor controlled.
- Float-mode monitoring – automatically maintains optimum battery charge.
- Multi-stage charging for added precision, safety and battery life.
- Insulated clamps and fused ring leads.
- Charging status LED.
- Reverse polarity, safety shut-off and spark proof, thermal runaway, ventilation system.
- Scrolling message on models with screens.
- Hook attachment on all models.
- Protection bumpers.
- Auto voltage detection for ED-SPI-1 & ED-SPI-2.
- ED-SPI-3 charges Lithium LiFePo4 or lead-acid batteries.
- 2 year warranty.

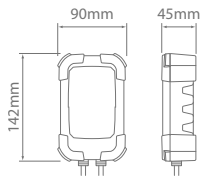


Nominal AC Voltage :
Approvals :

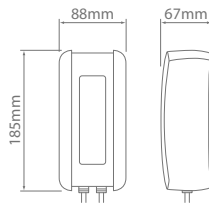
230VAC 50Hz
CE, C-Tick



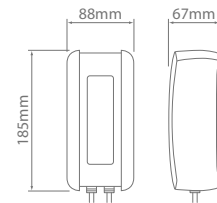
Hook attachment on all models



ED-SPI-1



ED-SPI-2



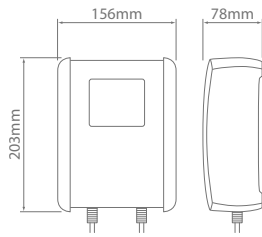
ED-SPI-3

ED-SPI-3 can charge 4 cell LiFePo4 (lithium iron phosphate) batteries

Lithium-Ion LiFePo4

Chargers/Maintainers **NEW**

Part No.	Output Voltage	Max. Charging Current (A)	Battery Range (Ah)	Weight (kg)
ED-SPI-1	6/12	1	32 @ 12V	0.4
ED-SPI-2	6/12	2	12-46 @ 12V	0.65
ED-SPI-3	12	3	6-58 @ 12V	0.78



Scrolling digital message on all models with screens

Chargers NEW

Part No.	Output Voltage	Max. Charging Current (A)	Battery Range (Ah)	Weight (kg)
ED-SPI-6	12	6	6-130 @ 12V	1.2
ED-SPI-10	12	10	10-200 @ 12V	1.2
ED-SPI-1224	12/24	10 @ 24V 15 @ 12V	50 @ 24V 75 @ 12V	1.25



ED-3REM



ED-BC4012

- Selectable outputs for different battery types.
- 4 stage charging controls:
 - Bulk
 - Absorption
 - Float
 - Maintenance
- Output current controlled via front keypad.
- Priority charge function on bank 1.
- Selectable Night Mode for silent operation.
- Optional LCD panel for remote control and monitoring.
- Transient, short circuit, over-voltage & over temperature protected.
- 12V & 24V models available.
- 5 year warranty.

Input Voltage : 90-265VAC
Frequency : 50-60Hz
Output Circuits : 3*
Battery Types : Flooded, Lithium, AGM/GEL
Approvals : C-Tick, AS/NZS 60335.2.29
Operating Temperature : -20°C to 60°C

*1 fully independent, 2 common with diode isolation



ED-BC4012



3 output banks with priority charge function on bank 1

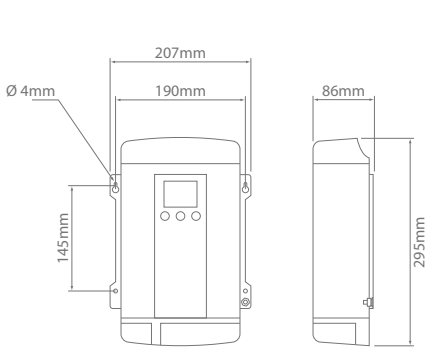


Fig 1

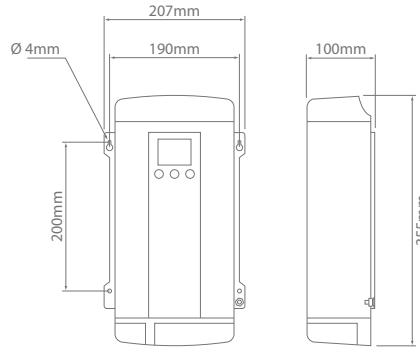


Fig 2

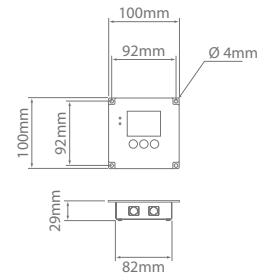


Fig 3

AC to DC Battery Chargers

Part No.	Model	Output Current (A)	Output Voltage (DC)		Weight (kg)	Fig
			Min	Max		
ED-BC2012	12V	20	14.2	15.5	2.4	1
ED-BC3024	24V	30	28.4	31.0	4.0	2
ED-BC4012	12V	40	14.2	15.5	2.6	1
ED-BC6012	12V	60	14.2	15.5	4.0	2
ED-3REM	Optional LCD remote panel with 7.3m cable					3

- Multi-stage charging controls.
- Transient, short circuit, over-voltage & over temperature protected.
- Compatible with flooded cell, lithium and AGM/GEL batteries.
- NGBC series & REC2410-30NG encapsulated for enhanced resistance to vibration and humidity.
- LED status indicator supplied with select models.
- BC-2412-10 incorporates internal resettable fuse.
- ED models features solar input capability.
- ED models includes temperature sensor for more accurate battery charging.
- 2 or 5 year warranty.



ED-DCBC4012



VDBC1224-20

Output Circuits : 1
 Inputs : 1 x Battery
 ED Models 1 x Battery & Solar
 Battery Types : Flooded, Lithium, AGM/GEL
 Approvals : C-Tick
 Operating Temperature : -20°C to 60°C



2Yrs



2Yrs

LED status indicator
 (VDBC1224-20, NGBC1222-1,
 REC2412-30NG)



2Yrs

5Yrs



Temperature sensor with
 7.5m cable

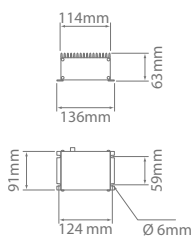


Fig 1

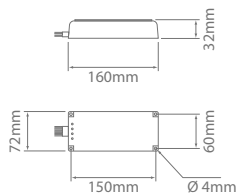


Fig 2

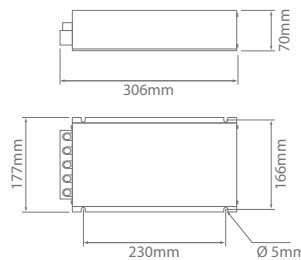


Fig 3

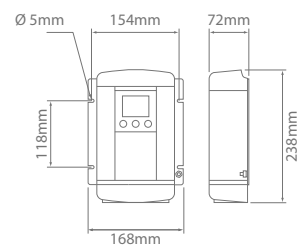


Fig 4

DC to DC Battery Chargers

Part No.	Output Current (A)	Input Voltage (DC)	Nominal Output Voltage (DC)	Weight (kg)	Alternate Functions ^Δ	Fig
BC-2412-10	10	24	12	0.7	—	1
VDBC1224-20	20	12	24	0.6	Voltage Doubler	2
NGBC1222-1	22	11.5 – 15.5	12	0.6	—	2
REC2412-30NG	40	22 – 30	12	0.6	Voltage Reducer/Equaliser	2
REC1260	60	22 – 30	12	2.6	Voltage Reducer/Equaliser	3
ED-DCBC3024 NEW	30	12/24	24	1.8	MPPT Solar 14-45V	4
ED-DCBC4012	5-50*	12/24	12	1.8	MPPT Solar 14-45V	4

* User selectable.

^Δ Alternate functions must be set prior to installation.





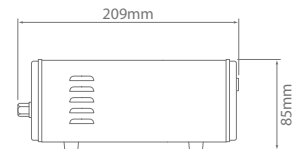
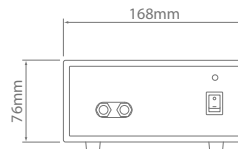
- Regulated output voltage.
- Light & portable.
- Internal cooling.
- LED status indicators.
- Transient, short circuit, overvoltage & overtemperature protected.
- RPS3800 features adjustable output voltage.



Approvals :
Operating Temperature :

CE, C-Tick
0°C to 80°C

RPS3078



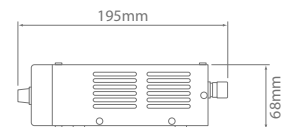
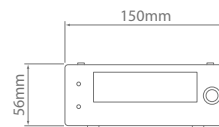
LED status indicators



Adjustable output voltage



RPS3800



Power Supplies

Part No.	Output Current (A)	Input Voltage (AC)	Output Voltage (DC)	Weight (kg)
RPS3078	0 – 20	220 – 240	13.8	1.3
RPS3800	15 – 17.4	90 – 125 / 200 – 240	0 – 24*	1.1

* User selectable.

- Microprocessor-controlled battery isolators designed for use in multi-battery applications.
- Cost-effective protection against flat battery.
- Intelligent battery monitoring to prevent unwanted switching.
- Starter battery priority.
- No voltage loss.
- Surge-protected.
- 5 year warranty.
- Ideal for service vehicles, solar power systems, caravans, RVs, trailer homes, industrial systems and maritime applications.

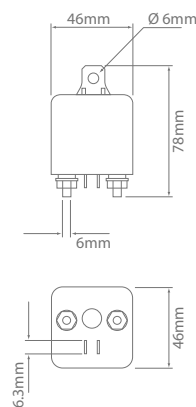
ED-V24-160



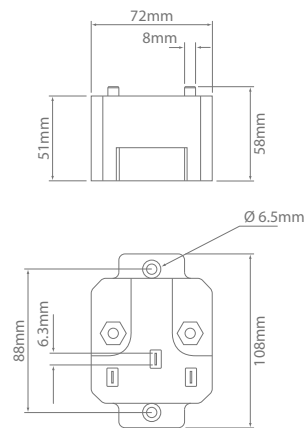
ED-VSR1224-140



Voltage : 12V/24V
 Approvals : C-Tick
 Operating Temperature : -10°C to 40°C



ED-VSR1224-140



ED-VSR1224-160

Battery Separators

Part No.	Current Rating (A)		Off Volts		On Volts		Weight (kg)
	Inrush	Continuous	@12V	@24V	@12V	@24V	
ED-VSR1224-140	—	140	12.8	25.6	13.2	26.4	0.1
ED-VSR1224-160	480	160	12.8	25.6	13.2	26.4	0.5



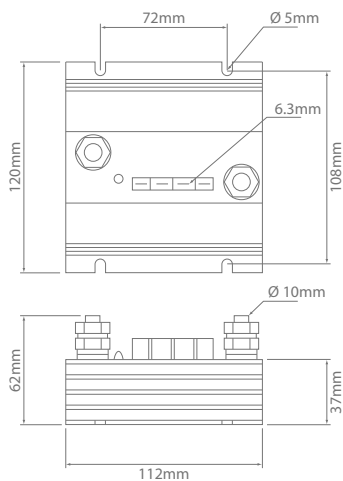
NEW



- Protects batteries being completely discharged from non-essential loads potentially denying engine cranking power.
- Protects from overvoltage – shuts down over 16V (12V mode), 32V (24V mode).
- Microprocessor controlled with 10 different selectable under voltage thresholds for 12V and 24V.
- LED for output status (on/off) and programming.
- Programmable delayed alarm output.
- Programmable delayed load disconnect.
- 5 year warranty.
- Made in Europe.

IP66 **Made in Europe**

Voltage : 12V/24V
Cable Diameter : 50mm² (min.)
Weight : 730g
Ingress Protection : IP66
Approvals : CE, C-Tick



Don't let your battery run flat

Utilising the Low Battery Cutout you can be assured your battery won't be drained while in action.



Program the Low Battery Cutout to trigger an alarm when your charge is getting low.

Low Battery Cutout **NEW**

Part No.	Max. Load (A)	Peak Current (A)	Under Voltage Disconnect Voltage		Over Voltage Disconnect Voltage	
			12V Mode	24V Mode	12V Mode	24V Mode
ED-LBC1224-200	200-210	480	10V-12V*	20V-24V*	16V	32V

* 10 different selectable under voltage thresholds for 12V and 24V.

NEW

- Integrated accelerometer for pitch & roll measurements.
- 3 stage configurable warning and alarm.
- Internal buzzer.
- Multi-voltage.
- Full colour display.
- Compact size.
- Made in Australia.



Voltage : 9-36V
Body : ABS
Connector : 1.9m lead to cigar plug
Weight : 90g
Approvals : CE, C-Tick
Operating Temperature : -40°C to 85°C



Pitch & Roll

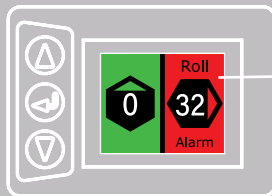
Digital inclinometer incorporates a 3 stage visual and audible warning for a vehicle's pitch and roll, each warning stage can be user configured.

Stage 1 - Green

Safe Range, no alarm.

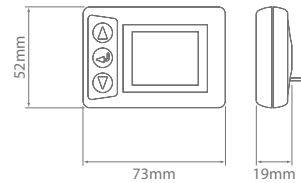
Stage 2 - Yellow

Slow beeping.



Stage 3 - Red

Fast beeping.



Digital Inclinometer **NEW**

Part No.
HMDS0400

Supplied with mounting bracket and hardware.



NEW



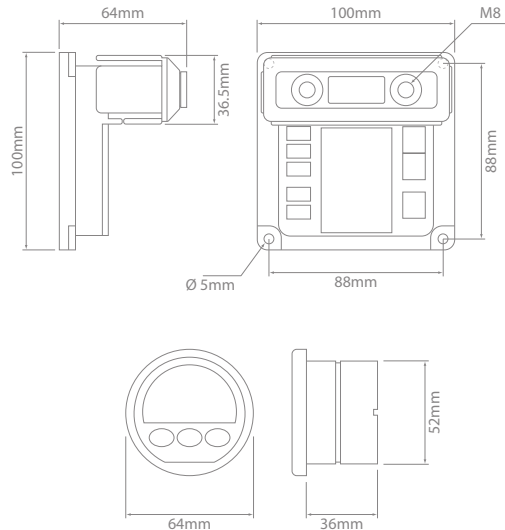
5Yrs 7V 70V CE Made in Europe

- Complete battery status information at a glance (% , V , A , Ah , W , h:m , °C).
- Supports up to three battery banks (12V , 24V and 48V).
- Very simple 'Plug and Play' installation.
- Programmable alarm contact.
- All wiring included (excluding battery cables).
- Compatible with lead based and lithium batteries (LiFePO4).
- The inputs for battery bank 2 and 3 can also be configured for other purposes – keyswitch input, mid-point voltage measurement, setup lock or backlight control.
- Measure DC currents up to 600A (500A continuous) and voltages up to 70VDC.
- 5 year warranty.
- Made in Europe.

Supply Voltage : 7 to 70VDC
 Input Voltage : Main Battery 7 to 70VDC
 Auxiliary Battery(s) 1 to 70VDC
 Current : 10mA @ 12V
 Battery Capacity : 10 to 10,000Ah
 Approvals : CE
 Operating Temperature : -20°C to 50°C



Supplied with rubber blanks for unused input ports



Battery Monitor Plus Kit **NEW**

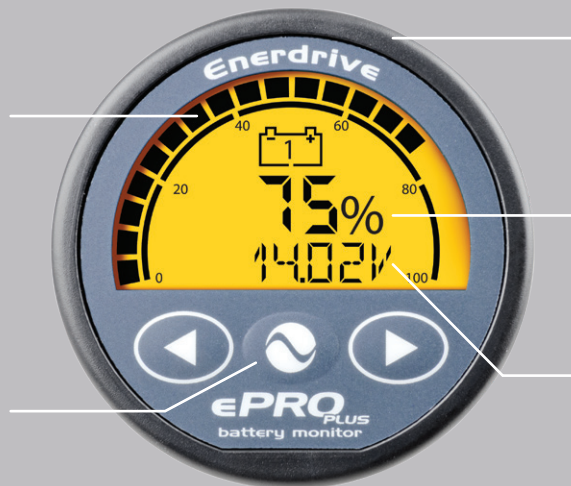
Part No.
ED-EN55050

- Kit contains:
- 1 x Control & Display Unit (CDU)
 - 1 x Intelligent Shunt Module
 - 1 x Fused supply cable
 - 1 x Shunt to CDU cable
 - 6 x Rubber port blanks
 - 1 x User manual
 - 1 x Installation guide

Control & Display Unit (actual size)

Large circular bar graph clearly shows battery charge at a glance. Smart display animations indicate whether the battery is being charged or discharged and by which intensity.

Simple three button interface allows easy parameter readout selection in normal operating mode and intuitive navigation through the setup menus.

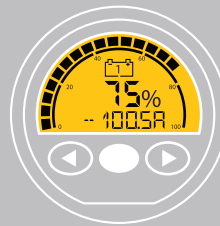
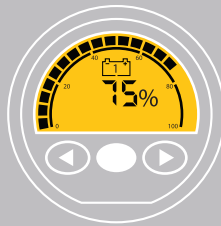


Compact round Control & Display Unit with splash proof front panel, large backlit display and only 36mm installation depth.

Permanent large digit battery state of charge (%) indicator.

Second parameter row allows an additional parameter to be shown. During setup, this row will also show a clear textual explanation of each function.

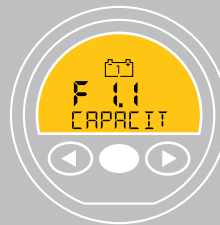
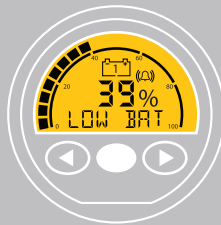
Normal operating mode (second parameter row disabled).



Second parameter row can display:

- Volts
- Amperes
- Watts
- Maintenance hours
- Temperature
- Ampere hours
- Time remaining

Alarm icon and scrolling explanation. An audible alarm can also be enabled.



Scrolling text clearly explains functions during setup.

Intelligent Shunt Module

Special fiber reinforced base material offers excellent high temperature properties, good chemical resistance and high strength.

Voltage sense input for (main) battery bank 1. Also positive supply input for ePRO Plus.

Voltage sense inputs for battery banks 2 and 3. Or assignable to other functions.

Potential free 5A/30VDC (1A/70VDC) programmable alarm relay contact to control external equipment.



Stainless steel studs, nuts and washers for optimal corrosion resistance.

Ultra low loss custom made shunt module can handle 500A continuously.

Dual QLINK port for connection to the Control & Display Unit or other accessories.

Input port for optional battery temperature sensor.

Multi purpose indicator provides status, error and battery charge information (3 colours).

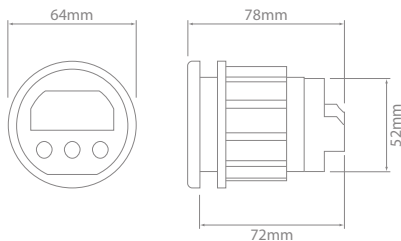


NEW



- Displays voltage, current, consumed amp hours, remaining battery capacity and time remaining.
- 2 battery inputs.
- Configurable alarm relay.
- 500A shunt included.
- Ideal for service vehicles, forklifts, solar power systems, trailer homes, industrial systems and marine applications.
- 5 year warranty.
- Made in Europe.

Supply Voltage :		9-35VDC
Input Voltage :	Main Battery	0 to 35VDC
	Auxiliary Battery	2 to 35VDC
Current :		9mA @ 12VDC
Battery Capacity :		20 to 9990Ah
Approvals :		CE, C-Tick
Operating Temperature :		-20°C to 50°C



Battery Status

Cycle between 5 status screens providing a comprehensive understanding of the battery condition.



Display battery voltage to within 0.1V



Displays amp hours remaining in battery (up to 9990h)



Display time remaining until fully discharged (up to 240hrs)



Battery % remaining until fully discharged



Net charge/discharge current going into or out of the battery (up to 500A)

Battery Monitor Kit **NEW**

Part No.

ED-EN55030

Kit contains:

- 1 x Control & Display Unit (CDU)
- 1 x Shunt module
- 1 x Shunt to CDU cable - 5m
- 2 x Fuse holders
- 2 x 1A Fuses

- 1 x Screw driver
- 3 x Crimp terminals
- 1 x User's manual
- 1 x Installation guide

- Sealed case.
- Multi-voltage.
- Transient voltage and reverse polarity protected.
- IHMO1 aluminium bezel.
- 6 digit display.
- Running indicator.
- 4mm numeral height.
- Shock & vibration resistance.
- Quartz accuracy.
- Made in North America.

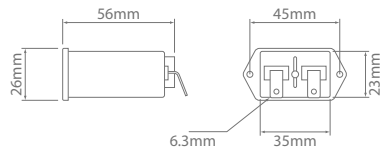
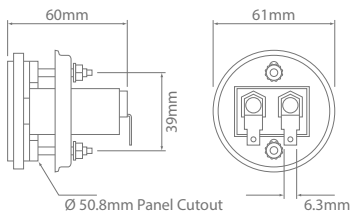


IHMO1



SY15186

Voltage : 10-80V
Current Draw : 0.16A
Shock : 55G
Vibration : 20G max. rms 10 - 80Hz
Case : Black Polymer
Wire Length : 390mm
Type : Electromechanical
Accuracy : +/- 0.02%
Approvals : CE, RoHS
Operating Temperature : -40°C to 85°C



Black anodised aluminium



IHMO1

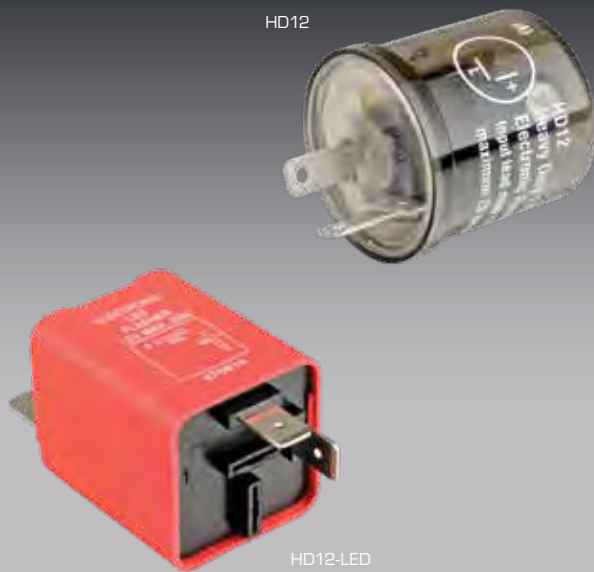


SY15186

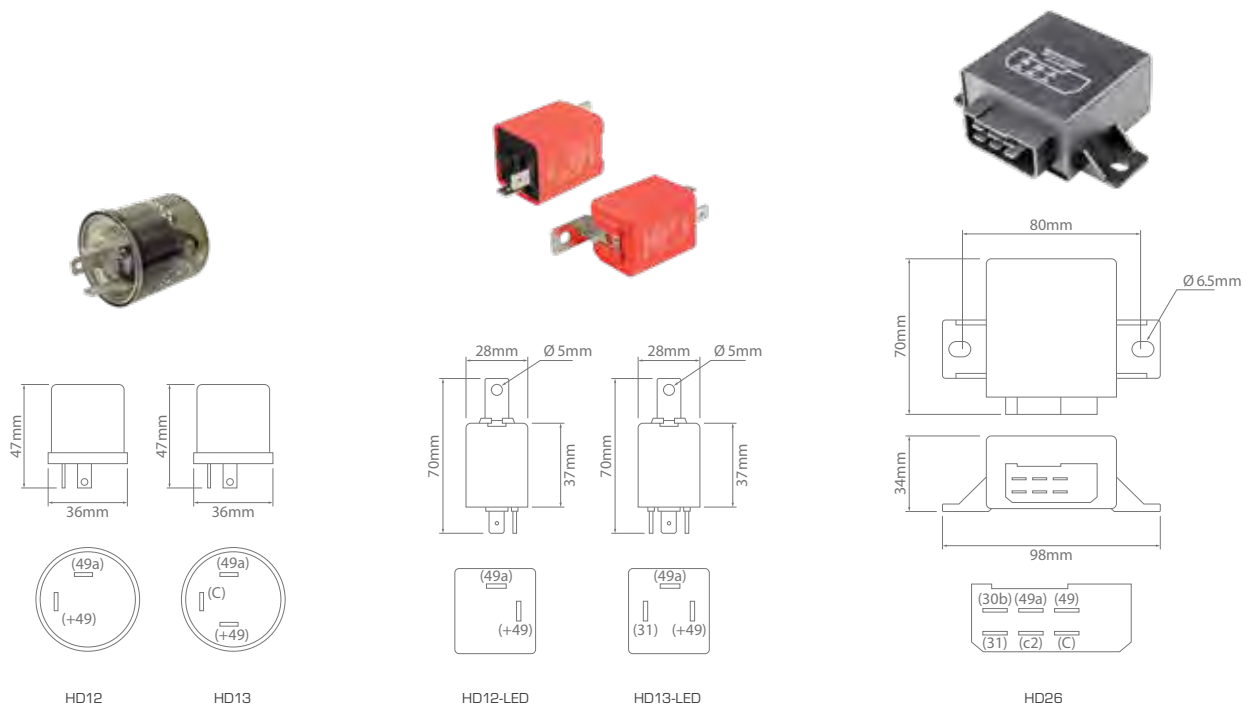
Hour Meter Kits

Part No.	Lens	Kit contains:
IHMO1	Glass	1 x Display 1 x Mounting hardware 1 x Wiring harness - 390mm
SY15186 NEW	Plastic	1 x Display 1 x Mounting hardware





- Suitable for indicators & hazard lights.
- Suitable for LED & incandescent applications.
- Flash rate is not influenced by load variation.



Flasher Units

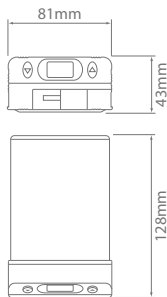
Part No.	Voltage	No. of Terminals (6.3mm)	Side Repeater Lamps	Indicator Lamps	Max. Load (W)	Bulb Failure Indicator
HD12	12	2	None	1 to 6 x 25W	210	No
HD13	12	3	None	1 to 10 x 21W	210	Yes
HD12-LED	12	2	1 x 5W	1 x 21W & 1 LED Cluster	30	Yes
HD13-LED	12	3	1 x 5W	1 x 21W & 1 LED Cluster	30	Yes
HD26	24	6	None	4 x 21W & 2 x 21W	170	Yes

- Microprocessor technology – no time delay.
- 12V and 24V models available.
- Incorporates override function for manual control.
- In-cab control & indication.
- 2 axle 12A output capability.
- EBC series plug & play installation.
- Detachable mounting bracket on most models.
- 2 year warranty.

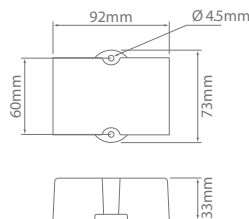


Axles : 2
 Approvals : RBC Series C-Tick

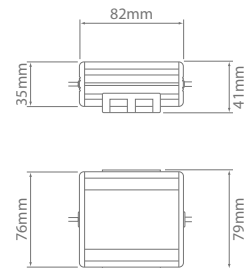
2Yrs



EBC-12, EBC-24



RBC-12



RBC-24

Brake Controllers

Part No.	Voltage	Weight (kg)
EBC-12	12	0.3
EBC-24	24	0.3
RBC-12	12	0.2
RBC-24	24	0.2





IONNIC Idle Timer:

- Selectable idle time cycle.
- LED indicators for visual warning.
- Multi-voltage.
- Environmentally sealed – IP65.
- Push & toggle switch kits available.
- Suitable for Energised To Run (ETR) systems. Energised To Stop (ETS) model available on request.

IONNIC Idle Timer (IT11450)

Voltage :	12–24V
Enclosure :	ABS
Ignition Output :	10A
Auxiliary Output :	0.7A
Ingress Protection :	IP65
Approvals :	CE, C-Tick
Operating Temperature :	-40°C to 85°C

12V
24V



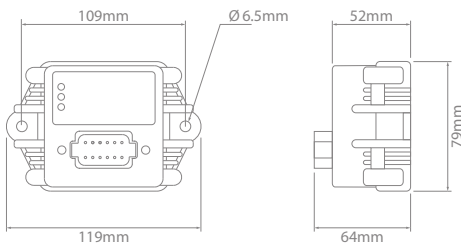
Illuminated push button switch (Red)



IT10451



Engraved label



IT11451

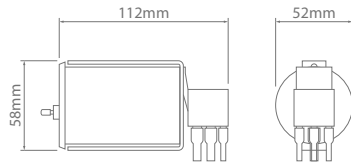


Illuminated pilot light (Amber)



Idle Timers – IONNIC

Part No.	Description	
IT11450	Idle Timer controller unit	
ITBKT	Optional mounting bracket. Powder coated aluminium	
B657	Optional warning buzzer	
IT10451	Harness with stainless steel push button switch & engraved label – 1.8m	
IT11451	Harness with toggle switch, boot & pilot light – 1.8m	
IT10452	Idle Timer Kit – push button switch	Kit contains: 1 x IT11450, 1 x IT10451
IT11452	Idle Timer Kit – toggle switch	Kit contains: 1 x IT11450, 1 x IT11451



30A switching capacity via serviceable external relay



Idle Timers – Gauge Mount

Part No.	Voltage	Current Rating (A)	Outputs	Energise to	Time Intervals (min)	Park Brake Override	Description
CST500	12-24V	10A max.	1	Run	Fixed @ 5	No	Relay driven output







Bulbs

Bulbs

184

Bulbs

Bulbs



- Wide range of bulbs including LED, HID, halogen and incandescent.
- Truckstar models feature:
 - Osram patented Single Coil technology
 - Up to 100% more light output compare with conventional 24V bulbs
 - More then twice the life of conventional 24V bulbs
 - High vibration resistance
 - Ideal for trucks and other heavy duty applications

HID

Part No.	Voltage	Watt	Base	Fig
80037	12-24	35	D1S	1
80009	12-24	35	D2S	2

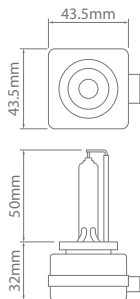


Fig 1

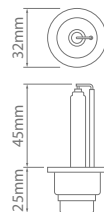
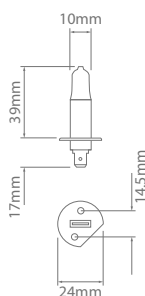


Fig 2

Halogen - H1

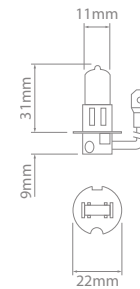
Part No.	Voltage	Watt	Base	Description
64150	12	55	P14.5s	Original Line
64150NBUDUO*	12	55	P14.5s	Night Breaker Unlimited
84150	12	55	P14.5s	Long Life
62200	12	100	P14.5s	Off Road - Rally
64155	24	70	P14.5s	Original Line
64155LTS	24	70	P14.5s	Truckstar
84155	24	70	P14.5s	Long Life

* Pack of 2.



Halogen – H3

Part No.	Voltage	Watt	Base	Description
64151	12	55	PK22S	Original Line
64151SUP	12	55	PK22S	+30
62201	12	100	PK22S	Off Road – Rally
64156	24	70	PK22S	Original Line
64156LTS	24	70	PK22S	Truckstar



Halogen – H4

Part No.	Voltage	Watt	Base	Description	Fig
64193	12	60/55	P43t	Original Line	1
64193CB	12	65/55	P43t	Cool Blue	1
64193NBUDUO*	12	65/55	P43t	Night Breaker Unlimited	1
62203	12	100	P43t	Off Road – Rally	1
64196	24	75/70	P43t	Original Line	1
64196LTS	24	75/70	P43t	Truckstar	1
64198	12	60/55	P45t	Off Road – Rally	2
64199	24	75/70	P45t	Off Road – Rally	2

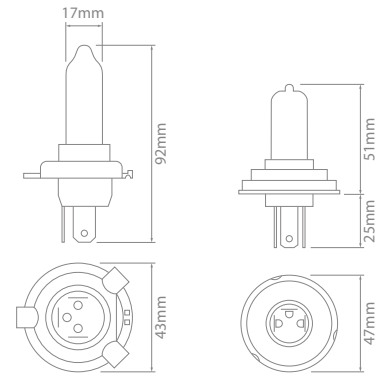


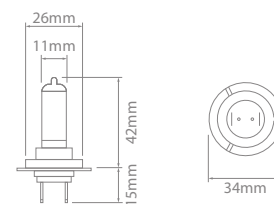
Fig 1

Fig 2

* Pack of 2.

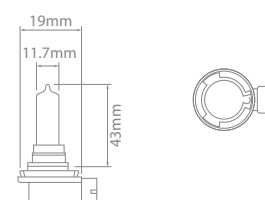
Halogen – H7

Part No.	Voltage	Watt	Base	Description
64210	12	55	PX26d	Original Line
64210CB	12	55	PX26d	Cool Blue
64210NBU	12	55	PX26d	Night Breaker Unlimited
64215	24	70	PX26d	Original Line

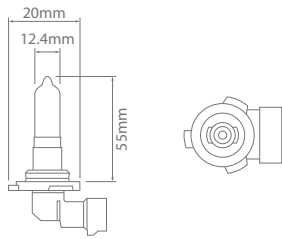


Halogen – H9

Part No.	Voltage	Watt	Base	Description
64213	12	65	PGJ 19-5	Original Line

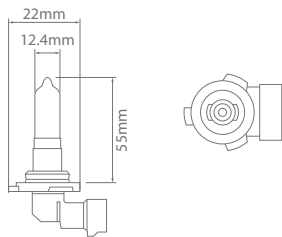


Bulbs



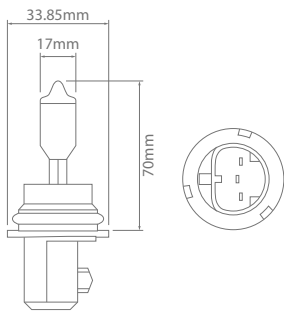
Halogen – HB3

Part No.	Voltage	Watt	Base	Description
9005	12	60	20d	Original Line
9005CB	12	60	20d	Cool Blue



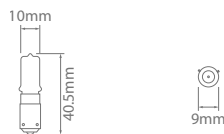
Halogen – HB4

Part No.	Voltage	Watt	Base	Description
9006	12	51	P22d	Original Line
9006CB	12	51	P22d	Cool Blue



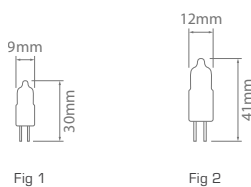
Halogen – HB5

Part No.	Voltage	Watt	Base	Description
9007	12	65/55	PX29t	Original Line



Halogen – Miniature

Part No.	Voltage	Watt	Base	Description
64136	12	21	BAY9s	Original Line
64138	24	21	BAY9s	Original Line



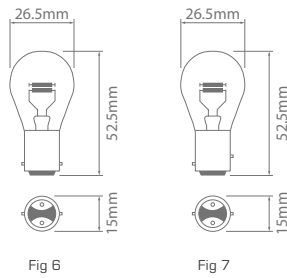
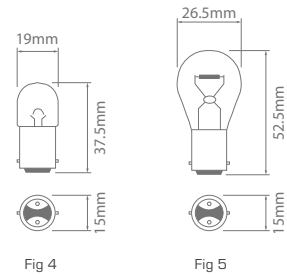
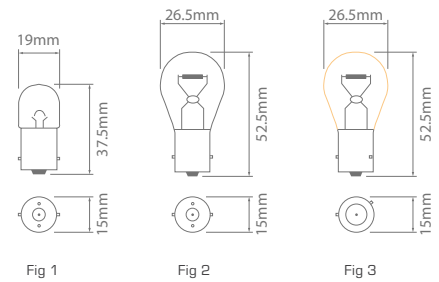
Halogen – Bi-Pin

Part No.	Voltage	Watt	Base	Pack Qty	Fig
059-024/10W	24	10	G4	1	1
059-024/20W	24	20	G4	1	1
060-012/50W	12	50	G6.35	1	2
060-012/100W	12	100	G6.35	1	2
060-024/35W	24	35	G6.35	1	2
060-024/100W	24	100	G6.35	1	2
899-911/5	12	35	G6.35	5	2
899-912/5	24	35	G6.35	5	2

Incandescent – Stop Tail / Flasher / Park

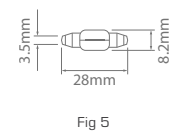
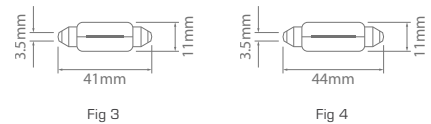
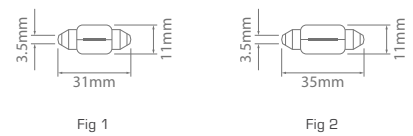
Part No.	Voltage	Watt	Base	Colour	Pack Qty	Fig
5007/10	12	5	BA15s		10	1
5008/10	12	10	BA15s		10	1
7506/10	12	21	BA15s		10	2
5627/10	24	5	BA15s		10	1
5637/10	24	10	BA15s		10	1
7511/10	24	21	BA15s		10	2
7507/10	12	21	BAU15s	Amber	10	3
9507/10*	24	21	BAU15s	Amber	10	3
2618/10	12	5	BA15d		10	4
1058/10	12	21	BA15d		10	5
2626/10	24	5	BA15d		10	4
1061/10	24	21	BA15d		10	5
1098/10	12	20/5	BA15d		10	6
7528/10	12	21/5	BAY15d		10	7
7537/10	24	21/5	BAY15d		10	7

* Truckstar



Incandescent – Festoon

Part No.	Voltage	Watt	Base	Length – mm	Pack Qty	Fig
6438/10	12	10	SV8.5-8	31	10	1
6418/10	12	5	SV8.5-8	35	10	2
6461/10	12	10	SV8.5-8	35	10	2
6423/10	24	5	SV8.5-8	35	10	2
6413/10	12	5	SV8.5-8	41	10	3
6411/10	12	10	SV8.5-8	41	10	3
6424/10	24	5	SV8.5-8	41	10	3
6429/10	24	10	SV8.5-8	41	10	3
6480/10	24	18	SV8.5-8	41	10	3
6476/10	12	21	SV8.5-8	44	10	4
6428/10	12	3	S7-8	28	10	5
6430/10	24	3	S7-8	28	10	5



Bulbs

Incandescent – Miniature

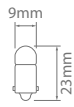


Fig 1



Fig 2

Part No.	Voltage	Watt	Base	Pack Qty	Fig
3796/10	12	2	BA9s	10	1
3797/10	24	2	BA9s	10	1
3894/10	12	3	BA9s	10	1
3893/10	12	4	BA9s	10	1
3930/10	24	4	BA9s	10	1
2696/10	12	2	BA7s	10	2
2692/10	24	2	BA7s	10	2

Incandescent – Wedge

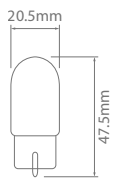


Fig 1

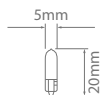


Fig 2

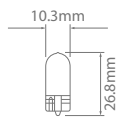


Fig 3

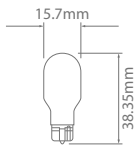


Fig 4

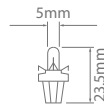


Fig 5

Part No.	Voltage	Watt	Base	Pack Qty	Fig
7443/10	12	21/5	W3x16q	10	1
2721/10	12	1.2	W2x4.6d	10	2
2741/10	24	1.2	W2x4.6d	10	2
2821/10	12	3	W2.1x9.5d	10	3
2840/10	24	2	W2.1x9.5d	10	3
2841/10	24	3	W2.1x9.5d	10	3
2845/10	24	5	W2.1x9.5d	10	3
2825/10	12	5	W2.1x9.5d	10	3
921/10	12	16	W2.1x9.5d	10	4
2741MF/10*	24	1.2	B8.5d	10	5

* 2741MF/10 has a plastic base.

LED – Headlamp Insert Kits

Part No.	Voltage	Base	Type	Fig
98-H1	12-24	P14.5s	H1	1
98-H4	12-24	P43t	H4	2

Each kit contains 2 x LED headlights plus fitting accessories.
Not ADR approved. For off road use only.

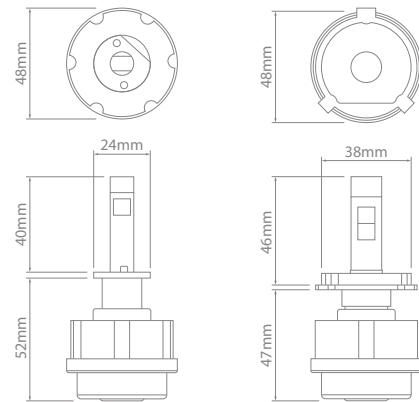
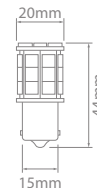


Fig 1

Fig 2

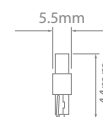
LED – Stop / Light / Indicator

Part No.	Voltage	Base	Description
1156Y	12-24	BA15s	Indicator – Amber LEDs



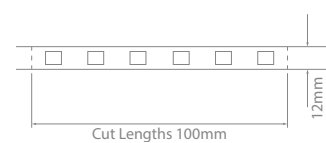
LED – Wedge

Part No.	Voltage	Base	Pack Qty
LED-12V/10	12	W2x4.6d	10
LED-24V/10	24	10	



LED – Flexible Strip Roll IP67

Part No.	Voltage	Watt Per 5m	Roll Length (m)	Colour Temperature
BA-5050-60/5	24	14.4	5	Cool White



Can be cut into various lengths. Cut points every 6 LEDs (100mm).



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0411-240-2005	150						
0411-291-1405	150						
0411-310-1605	150						
0411-336-1605	150						
0411-337-1205	150						
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General Information

EWA 2021 Version 2.0 – 09/2020

This reference manual supersedes all previous editions.

Auto Electrical Imports Pty. Ltd. reserves the right to change, or discontinue products or specifications without notice. All data and assistance is given as a general guide only and the final decision on suitability and application must be with the customer.

Warranty Statement

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Disassembly or modification of products may void warranty.

Warranty claims may only be returned by prior arrangement.

For a full statement outlining our warranty visit www.ionnic.com/warranty-statement.

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