ENSTO

EnstoNet XL

Robust Pluggable Installation Couplers

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With electricity.

Our systems adapt so you don’t have to. Our selection offers comprehensive solutions for commercial building electrical installations.

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EnstoNet XL

Installation couplers for higher power supply

Ensto has expanded the EnstoNet installation coupler system, adding new EnstoNet XL products suitable for higher current ratings up to 32A. The new range of 3-pole couplers are suitable for up to 32A while the 4 to 6-poles are suitable for up to 25A current. The EnstoNet XL family is a complete solution comprising couplers, tees, switch fused tees and a host of accessories to complement the system.

Flexibility

The EnstoNet Installation system provides the easiest, fastest, most cost-efficient way to rearrange, expand or re-install an existing network. As no waste is generated and products can be re-used due to their modular nature, an environmentally friendly lifecycle can be achieved and disposal costs avoided.

Fast installation

With compressed schedules and programs combined with the inevitability of change, Ensto brings an installation system based on advanced fabrication. This provides the user with the ability to adapt as well as providing significant time savings compared to traditional installation methods.

Less on-site work

The EnstoNet XL System is based on prefabricated components. Standard length prefabricated leads are wired from the distribution board/cabinet, with installation couplers used all the way to the end of the fixed wiring circuit. EnstoNet XL reduces on-site work by up to 70%.

Safety first

By using a truly modular system connections can be made correctly the first time with no risk of incorrect parenthesis in terminations and continuity being maintained across the circuits. The rapid nature of a EnstoNet XL modular installation requires less risky work such as working at height on podiums or platforms. As there are no stripping or cutting tools required personal protection is improved and risk of injury reduced significantly.

Suitable for a wide range of applications

We designed the EnstoNet XL system to make connecting couplers to each other easy and safe. Couplers are colour-coded on the basis of the recommended use, and the components intended for different applications are structurally incompatible. When the couplers are used in accordance with these recommendations, maintenance and making changes to the system are easy.

EnstoNet XL widens the usability of modular systems to new applications due to higher current ratings and suitability for flexible metal conduits.

EnstoNet XL can be used for lighting and power distribution in multiple applications, for example in office environments for lighting control, lighting circuits, power to fan coils, floor and ceiling power applications, air conditioning power supplies, blind boxes and AV power applications. EnstoNet XL also means outgoing circuits on distribution boards can be modularised for both lighting and power.

- **Lighting Circuits**
- **Power Circuits**
- **Above Ceiling Applications**
- **Below Floor Applications**
- **Exposed Services Applications**
- **HVAC**
- **Elevators**
- **AV Power Supplies**

Commercial

Healthcare

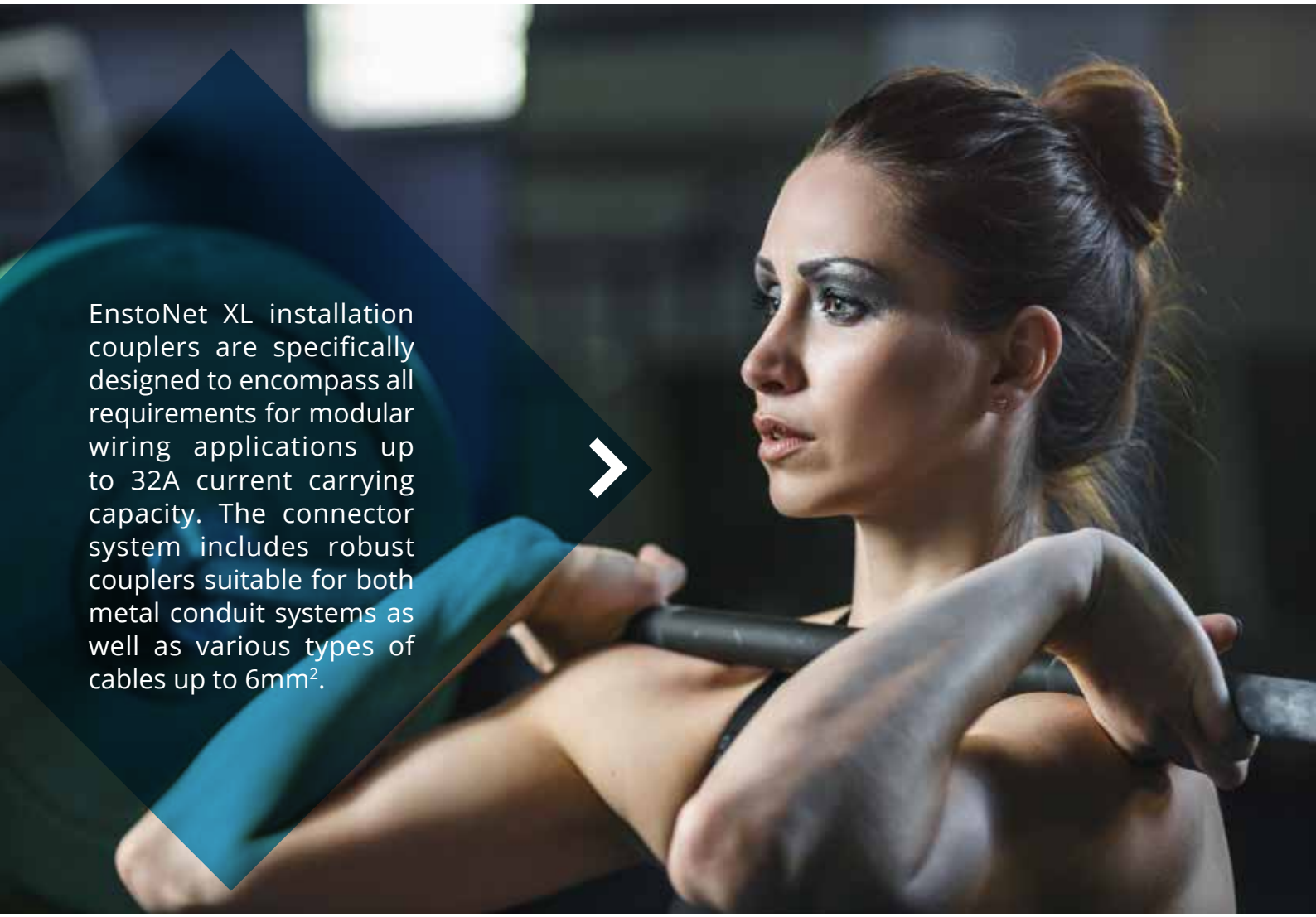
Education

Marine

Industrial

Retail

Featuring EnstoNet XL



EnstoNet XL installation couplers are specifically designed to encompass all requirements for modular wiring applications up to 32A current carrying capacity. The connector system includes robust couplers suitable for both metal conduit systems as well as various types of cables up to 6mm^2.

Ability to meet 32A upper capability for power distribution

The 2 and 3-pole couplers have larger pins and can be used for up to 32A circuits with 6mm^2 conductors. The 4 to 6-pole couplers are for 4 mm^2 conductors and are suitable for up to 25A currents.

Solid build quality from Finland's premier manufacturer

The EnstoNet XL range has been designed to be used in demanding environments requiring a high resistance to damage. The products are robust and durable and can be used where metal connectors have traditionally been used. The products meet the IK08 impact resistance requirements.

The EnstoNet XL couplers are manufactured with screw terminals inside the covers, making them the only connector of their type that can be replaced at site should it be damaged. This means the removal of a complete cable set is not necessary should the unthinkable happen. The benefits of EnstoNet have been carried forward to XL.

Possibility to use different cables

The couplers have different strain-relief housings for different cable types, making them suitable for normal cables and rubber cables as well as flexible metal conduits. TORX screws have been chosen for the strain-relief parts and T-distributors to reduce unauthorised opening.

Ergonomics and usability

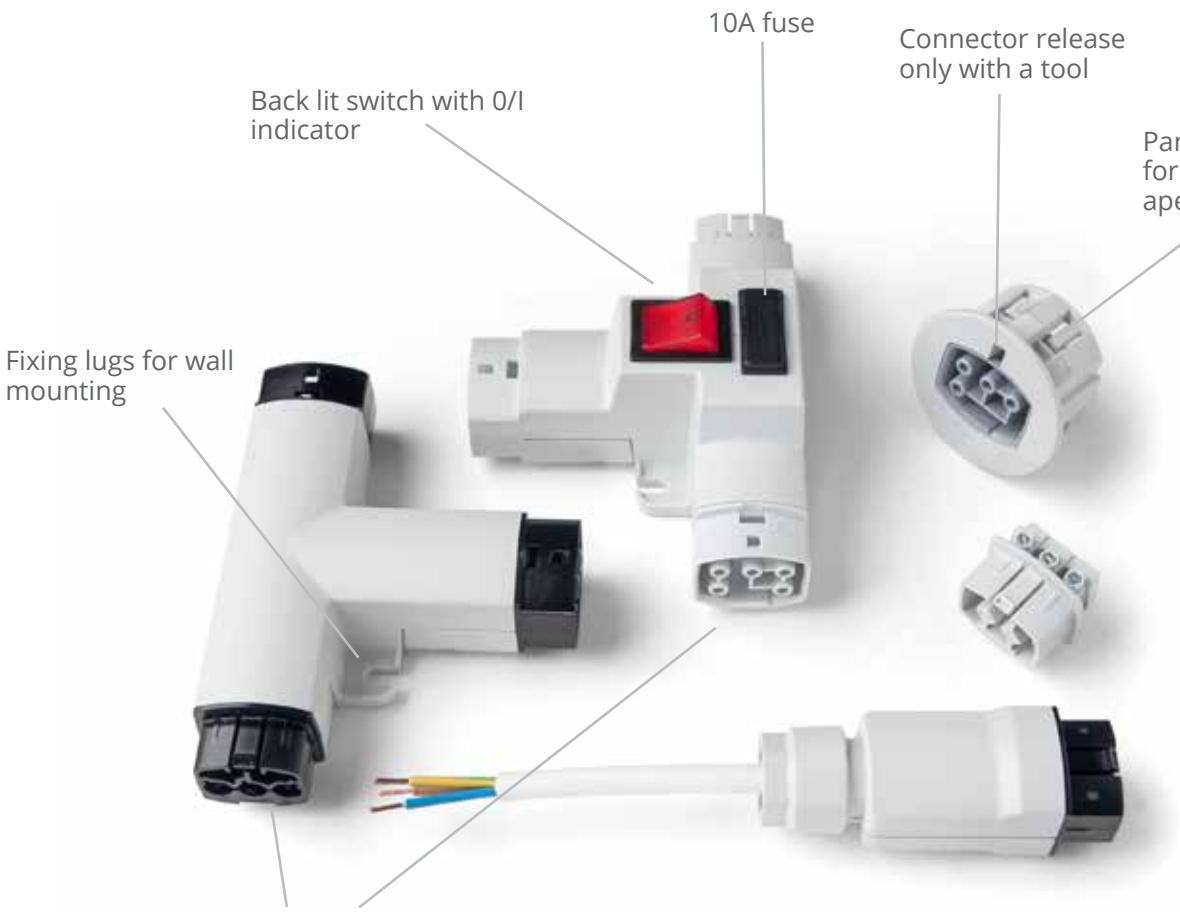
When creating the new EnstoNet XL system Ensto has incorporated a new design level of ergonomics to aid usability. When held in the hand it is easy to identify the mating parts and align them for connection even without clear visibility of the connectors.

The connector is just 36mm x 36mm so will fit easily through a 50mm dia hole. The panel mount has been manufactured to fit into a 50mm dia cutout or into a laser cut or stamped knock out.

All EnstoNet XL couplers are the same size due to the modularity of their construction makeup.

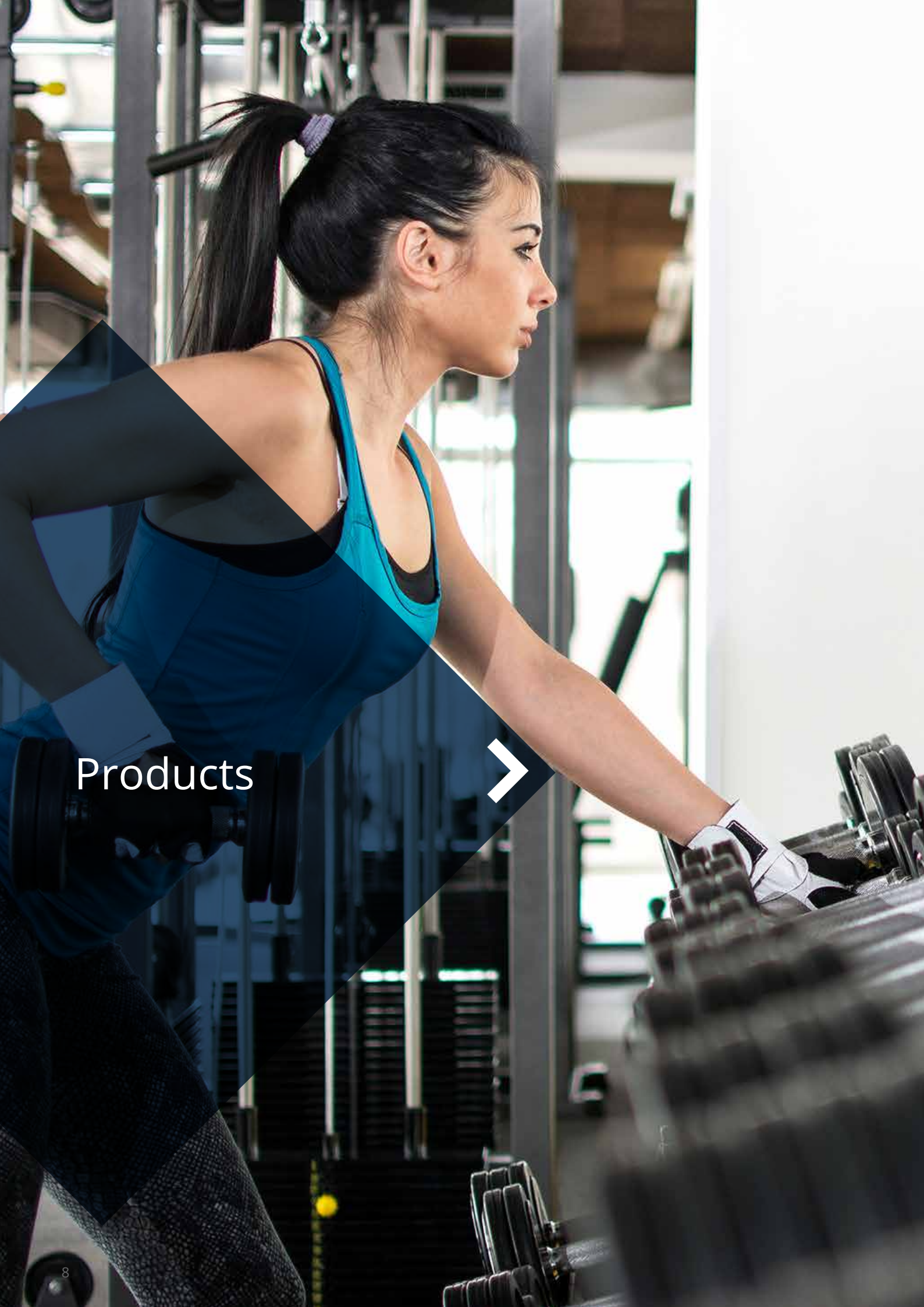
EnstoNet XL meets IEC 61535 and BS 8488. EnstoNet XL is IP2XD and suitable for readily accessible areas.

Functional, flexible and efficient installations



System colour denotation visible when connected.

Suitable for various cable types.



Products

EnstoNet XL installation couplers

For Cu conductors from 1.5 mm² to 6 mm²

EnstoNet installation couplers in brief:

- Plug and socket couplers
  - 2 and 3-pole, 32 A, 6 mm2
  - 4 to 6-pole, 25 A, 4 mm2
- Screw-type connection
- Strain-reliefs available for
  - Flexible metal conduits M16, M20
  - Cables diameter 8-11 and 11-17 mm
- All couplers are the same size and share the same accessories
- T-distributors also available with a fuse and a switch
- Connection always opened with a tool
- Colour coding for different systems, individual mechanical compatibility
- For indoor use, suitable for readily accessible areas

Mechanical and colour coding

Each coupler pair has an individual mechanical coding preventing false mating with any other configuration. EnstoNet XL has different system codes and colours for different standard applications.

EnstoNet XL has four system codes:

A: Power - Black colour
B: Control - Dark grey colour
C: BUS - Light grey colour
P: UPS power - Red colour

The system colour is visible when the couplers are connected and in the panel adapter.

Conformity	
	CE FI
Standards	
	IEC 61535
Technical information	
Nominal current range:	25 - 32 A
Nominal insulation voltage:	250 - 400 V
Operating temperature:	Max. +70 °C
Degree of protection:	IP2XD
Impact resistance:	IK08
Flammability rating:	Couplers V0*, housings V2
2 and 3-pole, 32 A	
Cross-section range:	1.5 – 6 mm²
Conductor type:	Flexible, stranded and solid wires
Stripping length:	8 – 10 mm
Connector screw head:	Slot head
Tightening torque:	0.6 - 0.8 Nm
4 to 6-pole, 25 A	
Cross-section range:	1.5 – 4 mm²
Conductor type:	Flexible, stranded and solid wires
Stripping length:	7 – 9 mm
Connector screw head:	Slot head
Tightening torque:	0.5 – 0.7 Nm
Strain-relief	
Strain-relief screw head:	Torx T10
Strain-relief tightening torque:	0.6 – 0.8 Nm
Material	
Body:	Polycarbonate
Terminals:	Silver-plated brass
Strain-reliefs:	Polycarbonate

* Red couplers V2

A: Power, black colour

B: Control, dark grey colour

C: BUS, light grey colour

P: UPS power, red colour

Product information

Couplers

Designed for use indoors, EnstoNet XL couplers can be installed in many applications such as prefabricated construction elements, voids, cable trays and trunking solutions in accordance with the national recognised installation standards. Connections are screw format. All couplers are the same size and and are interchangeable.

2-pole installation couplers

Product code	Nominal current	Conductor cross-section	Coupler type	Colour	System code	Application	Pole markings	Package size	GTIN
XLA21.B	32 A	Cu 1.5 - 6 mm²	Plug	Black	A	Power	+, -	50	6418677687860
XLA22.B	32 A	Cu 1.5 - 6 mm²	Socket	Black	A	Power	+, -	50	6418677687990

XLA21.B

XLA22.B

3-pole installation couplers

Product code	Nominal current	Conductor cross-section	Coupler type	Colour	System code	Application	Pole markings	Package size	GTIN
XLA31.B	32 A	Cu 1.5 - 6 mm²	Plug	Black	A	Power	L, N, PE	50	6418677687877
XLA32.B	32 A	Cu 1.5 - 6 mm²	Socket	Black	A	Power	L, N, PE	50	6418677688003
XLB31.D	32 A	Cu 1.5 - 6 mm²	Plug	Dark Grey	B	Control	A, B, C	50	6418677687891
XLB32.D	32 A	Cu 1.5 - 6 mm²	Socket	Dark Grey	B	Control	A, B, C	50	6418677688027
XLP31.R	32 A	Cu 1.5 - 6 mm²	Plug	Red	P	UPS power	L, N, PE	50	6418677687884
XLP32.R	32 A	Cu 1.5 - 6 mm²	Socket	Red	P	UPS power	L, N, PE	50	6418677688010

XLA31.B

XLA32.B

XLP31.R

XLP32.R

4-pole installation couplers

Product code	Nominal current	Conductor cross-section	Coupler type	Colour	System code	Application	Pole markings	Package size	GTIN
XLA41.B	25 A	Cu 1.5 - 4 mm²	Plug	Black	A	Power	L1, L2, N, PE	50	6418677687907
XLA42.B	25 A	Cu 1.5 - 4 mm²	Socket	Black	A	Power	L1, L2, N, PE	50	6418677688034
XLB41.D	25 A	Cu 1.5 - 4 mm²	Plug	Dark Grey	B	Control	A, B, C, D	50	6418677687914
XLB42.D	25 A	Cu 1.5 - 4 mm²	Socket	Dark Grey	B	Control	A, B, C, D	50	6418677688041

XLA41.B

XLA42.B

XLB41.D

XLB42.D

5-pole installation couplers

Product code	Nominal current	Conductor cross-section	Coupler type	Colour	System code	Application	Pole markings	Package size	GTIN
XLA51.B	25 A	Cu 1.5 - 4 mm²	Plug	Black	A	Power	L1 ,L2, L3, N, PE	50	6418677687921
XLA52.B	25 A	Cu 1.5 - 4 mm²	Socket	Black	A	Power	L1 ,L2, L3, N, PE	50	6418677688058
XLB51.D	25 A	Cu 1.5 - 4 mm²	Plug	Dark Grey	B	Control	A, B, C, D, E	50	6418677687952
XLB52.D	25 A	Cu 1.5 - 4 mm²	Socket	Dark Grey	B	Control	A, B, C, D, E	50	6418677688089
XLC51.G	25 A	Cu 1.5 - 4 mm²	Plug	Grey	C	BUS	L, N, PE, a+, b-	50	6418677687938
XLC52.G	25 A	Cu 1.5 - 4 mm²	Socket	Grey	C	BUS	L, N, PE, a+, b-	50	6418677688065
XLP51.R	25 A	Cu 1.5 - 4 mm²	Plug	Red	P	UPS power	L1 ,L2, L3, N, PE	50	6418677687945
XLP52.R	25 A	Cu 1.5 - 4 mm²	Socket	Red	P	UPS power	L1 ,L2, L3, N, PE	50	6418677688072

XLA51.B

XLA52.B

XLB51.D

XLB52.D

XLC51.G

XLC52.G

6-pole installation couplers

Product code	Nominal current	Conductor cross-section	Coupler type	Colour	System code	Application	Pole markings	Package size	GTIN
XLA61.B	25 A	Cu 1.5 - 4 mm²	Plug	Black	A	Power	L, PE, N, L, PE, N	50	6418677687983
XLA62.B	25 A	Cu 1.5 - 4 mm²	Socket	Black	A	Power	L, PE, N, L, PE, N	50	6418677688119
XLB61.D	25 A	Cu 1.5 - 4 mm²	Plug	Dark Grey	B	Control	L, PE, N, A, B, C	50	6418677687976
XLB62.D	25 A	Cu 1.5 - 4 mm²	Socket	Dark Grey	B	Control	L, PE, N, A, B, C	50	6418677688102
XLC61.G	25 A	Cu 1.5 - 4 mm²	Plug	Grey	C	BUS	L1, PE, N, L2, a+, b-	50	6418677687969
XLC62.G	25 A	Cu 1.5 - 4 mm²	Socket	Grey	C	BUS	L1, PE, N, L2, a+, b-	50	6418677688096

XLA61.B

XLA62.B

XLC61.G

XLC62.G

Distributors

T-distributors, one input and two outputs

T-distributors have one input and two outputs. The input is always located on the left side when looking at the connector mounted. The input is always connected to a female socket coupler and the outputs to male plug couplers. The T-distributor can be fixed to a wall or ceiling using max. Ø 5mm flat head screws or with cable ties.

Product code	Pole	Colour	System code	Application	Nominal current	GTIN	Package size
XLAD2	2	Black	A	Power	32 A	6418677688362	20
XLAD3	3	Black	A	Power	32 A	6418677688379	20
XLBD3	3	Dark grey	B	Control	25 A	6418677688393	20
XLPD3	3	Red	P	UPS power	32 A	6418677688386	20
XLAD4	4	Black	A	Power	25 A	6418677688409	20
XLBD4	4	Dark grey	B	Control	25 A	6418677688416	20
XLAD5	5	Black	A	Power	25 A	6418677688423	20
XLAD53L1	5	Black	A	Power, 3-phase continuous, L1 out	25 A	6418677688430	20
XLAD53L2	5	Black	A	Power, 3-phase continuous, L2 out	25 A	6418677688447	20
XLAD53L3	5	Black	A	Power, 3-phase continuous, L3 out	25 A	6418677688454	20
XLBD5	5	Dark grey	B	Control	25 A	6418677688485	20
XLCD5	5	Grey	C	BUS	25 A	6418677688461	20
XLPD5	5	Red	P	UPS power	25 A	6418677688478	20
XLAD6	6	Black	A	Power	25 A	6418677688515	20
XLBD6	6	Dark grey	B	Control	25 A	6418677688508	20
XLCD6	6	Grey	C	BUS	25 A	6418677688492	20

XLAD2

XLBD3

XLAD53L1

XLCD6

T-distributors, fused 10 A, switch, one input and two outputs

Fused T-distributors have a 2-pole switch (N, L) with a 5 x 20 mm fuse. Fused T-distributors come provided with 10 A fuse. The fuse drawer has space for a spare fuse and, if needed the fuse holder can be padlocked into an open position for secured isolation. The fused T-distributors also comes with a switch. The switch indicates if the power is on in the downwards going outlet. The switch is lit and has an O/I indicator.

Product code	Pole	Colour	System code	Application	Nominal current	GTIN	Package size
XLAD3F	3	Black	A	Power	32/10 A	6418677688522	15
XLBD3F	3	Dark grey	B	Control	32/10 A	6418677688546	15
XLCD5F	5	Grey	C	BUS	25/10 A	6418677688553	15

XLAD3F

XLBD3F

XLCD5F

Fuse drawer has space for a spare fuse and can be padlocked open for isolation.

Accessories

EnstoNet XL uses the same strain-relief and panel adapter parts for all formats of the connectors, offering true modularity and reduced part requirements for OEMs. There are four types of strain relief accommodating two types of cable diameter and two types of metal conduit diameters. Note that not all metal conduits are the same and checks should be made to ensure the profile is correct before ordering.

The panel adapter can be installed into a standard 50mm dia aperture using the counter nut accessory. Where a counter nut is not used a specific aperture can be laser cut or punched and the panel adapter clipped into place. The panel adapter has a fixing lug at the base for additional support if needed.

Product code	Description	Package size	GTIN
XLS8-11.G	Strain-relief for cables, 8-11 mm, grey	50	6418677688140
XLS11-17.G	Strain-relief for cables, 11-17 mm, grey	50	6418677688157
FMC16.G	Strain-relief for FMC16, grey	100	6418677688126
FMC20.G	Strain-relief for FMC20, grey	100	6418677688133
XLK.G	Panel adapter, grey	50	6418677688355
XL-CAP	End cap, grey	50	6438100332495
PMR1218.50	Counter nut for panel adapter, M50	50	6416031859502

XLS8-11.G

FMC20.G

XLK.G

XL-CAP

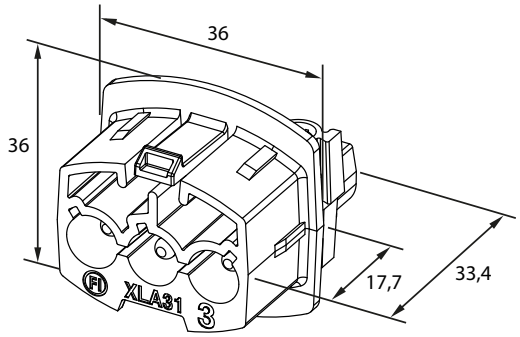
BEZA box adapter

The BEZA box adapter allows quick connection of accessories into standard BEZA box and conduit applicationns using the EnstoNet XL connectors applications. The two part adapter simply clips together with the chosen EnstoNet XL connector to allow a reciprocal plug to be inserted and make the connection. Suitable for all EnstoNet XL connectors, the BEZA box adapter makes connections simple. Can also be used as a panel adapter with a 40mm dia aperture.

Product code	Description	Package size	GTIN
BZL-XL.G	BEZA box adapter	50	6438100336318

Dimensional drawings

XL#21.#
XL#31.#



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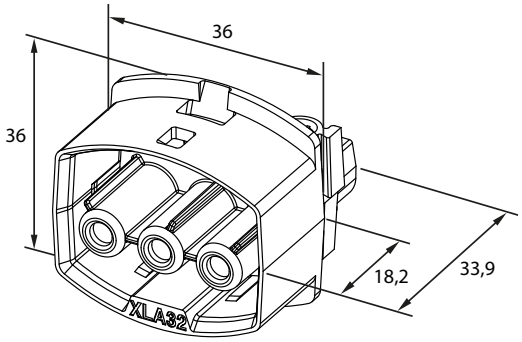
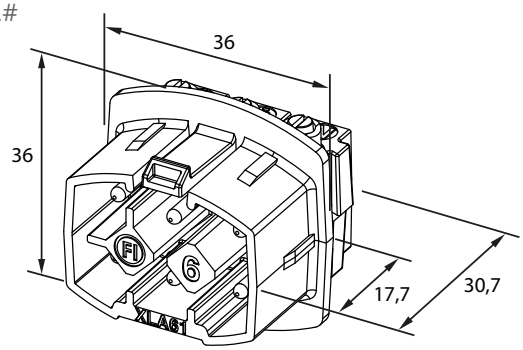
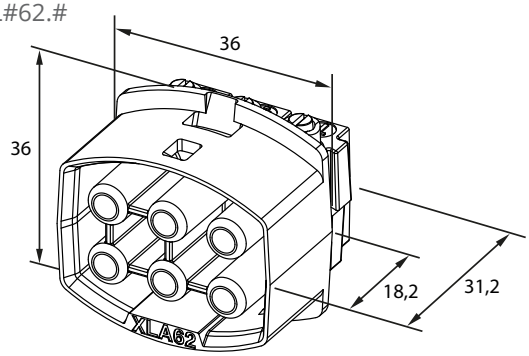
XL#32.#



XL#41.#
XL#51.#
XL#61.#



XL#42.#
XL#52.#
XL#62.#



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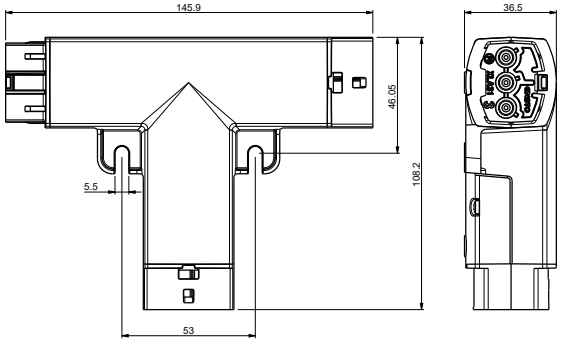
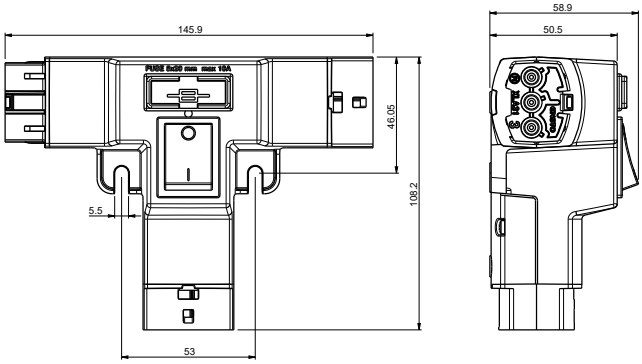
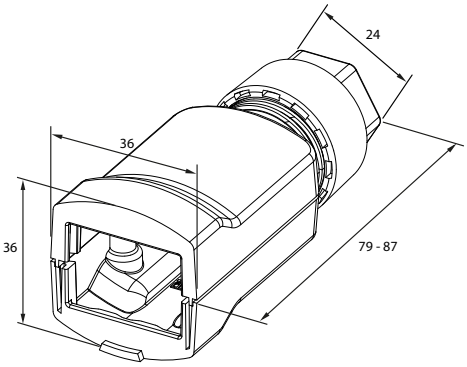


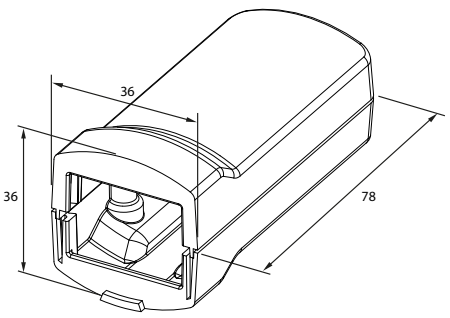
XL#D#F



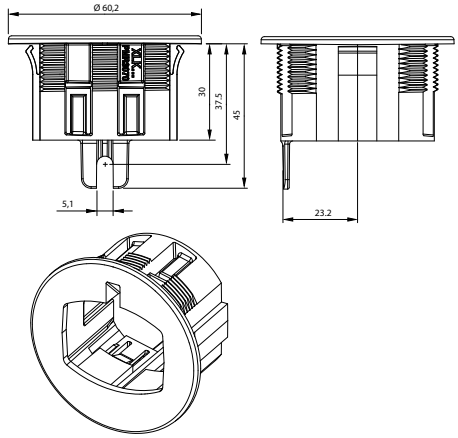
XLS##.#



FMC##.#

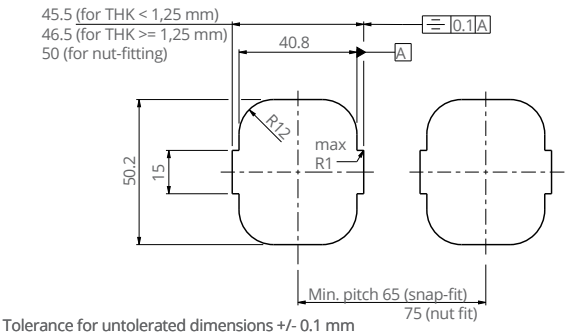


XLK.#



XLK.# cutout option 1 – for snap-fitting

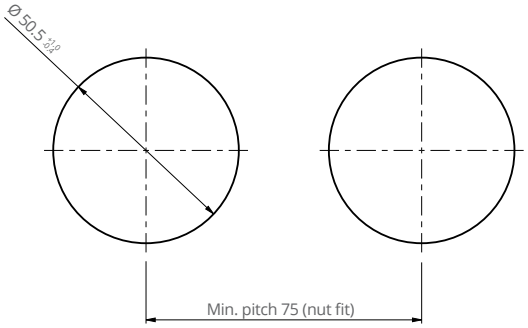
Can also be used for nut fitting.
Plate thickness: 0.75...1.5 mm for snap-fitting, max. 10 mm for nut fitting.



Tolerance for untolerated dimensions +/- 0.1 mm
Inside corners max. radius 1 mm

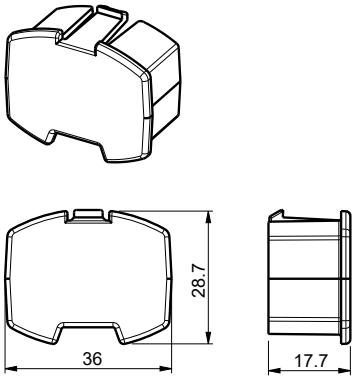
XLK.# cutout option 2 – Round cutout

For nut fitting only.
Plate thickness: 0.75...10 mm

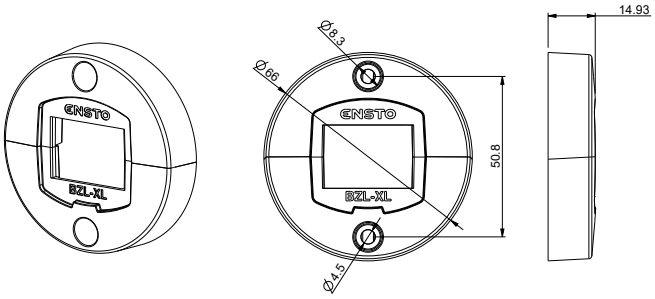


If a hole is drilled, standard 51 mm (2") hole saw can be used.

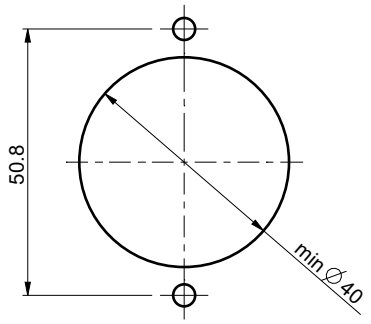
XL-CAP



BZL-XL.G



BZL-XL.G cutout for panel mounting



If a hole is drilled, standard 40 mm hole saw can be used.

Legal notice

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EL15EN/7/2018

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