



Junction box, round, with mounting stand on-pipe mounting in hazardous areas



The innovative junction box ELAK-Ex-R with mounting bracket (Ex-it) is suitable for use in potentially explosive atmosphere in accordance with Ex-guidelines 94/9/CE (ATEX 95) and provides a number of advantages. Thanks to the shape of the box, for instance, it is not necessary to strongly bend the inserted cable thereby avoiding cable damage. Due to the incorporated mounting bracket, there is no need to provide angle irons. This is especially advantageous to heat tracing on piping because the cable can directly be introduced via the mounting bracket. Furthermore, fastening screws for heating lines and sensors are not required. A safety locking, with appropriate tool included, prevents the cover to move. Additional features permitting the attachment of sign plates facilitate easy identification of heating circuits in complex systems.

Advantages:

- No static charge
- Rapid closing of the cover through snap fit, no tool required
- Increased mechanical safety through round shape
- Permits fixing of customer identification plates
- Up to 3 heating cables can be connected

Applications:

- Hazardous areas
- Chemical & petrochemical industries
- Power stations
- Industrial plants with a need for frost protection or temperature maintenance



Type **Ex-it-R**





Technical information

Type Ex-it-R

Data

■ Classification ELAK-Ex-R	II 2G Ex e IIC T6 Gb II 2D Ex tb IIIC TX Db
■ Classification Ex-it-R	II 2G Ex e IIC Gb II 2D Ex tb IIIC Db
■ Standards Ex-it-R	IEC 60079-0 ed.6, IEC 60079-7 ed.4, IEC 60079-31 ed.1
■ Ambient temperature	-40 °C up to +50 °C
■ Enclosure	polyamide, no static charge
■ Dimensions (approx.):	dia. 150 mm, 125 x 160 mm
■ Ex-it-R	height approx. 280 mm total, the junction box is attached to the mounting feet.
■ Impact resistance	7 Joule
■ IP rating	IP 65
■ Terminal blocks, heating cable connection:	max. 6 mm ²
■ Terminal blocks, temperature sensor connection:	max. 1.5 mm ²

Mounting bracket

■ Working temperature	-20 °C up to +200 °C
■ Enclosure	PPS
■ Insulating thickness, max	120 mm
■ Pipe outer diameter	≥ 20 mm
■ IP rating	IP 65
■ Classification	II 2G Ex e II 2 D Ex tD A21 IP65
■ Certificate	IBExU09ATEX1023U

Type	Description	Art. No.
Ex-it-R	junction box, with mounting feet, round, dia. 150 mm, height 125 mm, polyamide enclosure, to connect 3 self-regulating heating cables ELSR-N/-H, 1 connecting cable, 1 sensor cable, 1 double-Pt100, insulating thickness max. 100 mm	0X80070
Ex-it-R-T	T-branch, with mounting feet, round, dia.150 mm, height 125 mm, polyamide enclosure, to connect up to 3 self-regulating heating cables ELSR-N/-H, insulating thickness max.100 mm	0X80082
Ex-it-R-Pt	junction box, with mounting feet, round, dia. 150 mm, height 125 mm, polyamide enclosure, to connect 1 double-Pt 100, 1 sensor cable, insulating thickness max. 100 mm	0X80092

Note: Connection and termination kits are not included in the Ex-it-R system. Please place a separate order for these items which depend on the type of heating cable used. Appertaining screws are specified in chapter 'Accessories'.



Junction box, round for Ex-area



The innovative junction box ELAK-Ex-R is suitable for use in potentially explosive atmosphere in accordance with Ex-guidelines 94/9/CE (ATEX 95). Thanks to its exceptional shape it provides a number of advantages. Due to the form of the box, for instance, it is not necessary to strongly bend the inserted cable thereby avoiding cable damage.

A safety lock, with appropriate tool included, prevents the cover to move. Additional features permitting the attachment of sign plates facilitate easy identification of heating circuits in complex systems. Suited for wall-mounting.

Advantages:

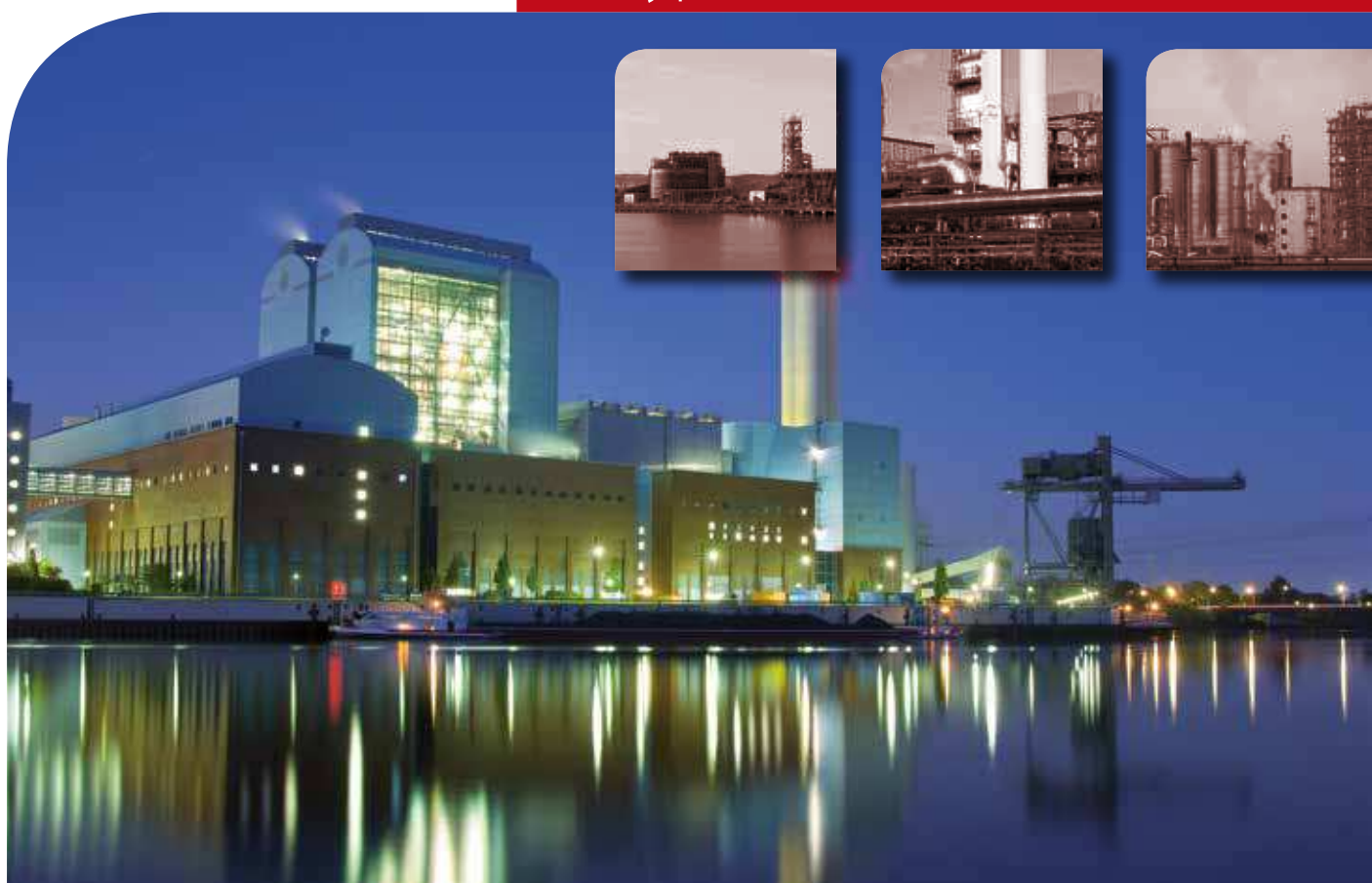
- No static charge
- Rapid closing of the cover through snap fit, no tool required
- Increased mechanical safety through round shape
- Permits fixing of customer identification plates
- Up to 3 heating cables can be connected

Applications:

- Hazardous areas
- Chemical & petrochemical industries
- Power stations
- Industrial plants with a need for frost protection or temperature maintenance



Type **ELAK-Ex-R**



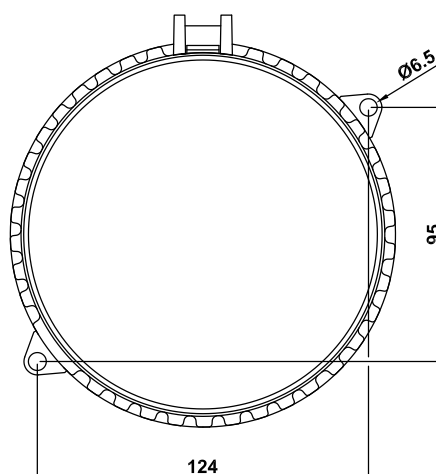


Technical information

Type ELAK-Ex-R

Data

■ Classification	II 2G Ex e IIC T6 Gb II 2D Ex tb IIIC TX Db
■ Standards	IEC 60079-0 ed.6, IEC 60079-7 ed.4, IEC 60079-31 ed.1
■ Ambient temperature	-40°C up to +50°C
■ Nominal current	see type plate, max. 28 A each terminal
■ Nominal voltage	see type plate, max. 550V
■ Terminals heating cable	max. 6 mm ² (optional 10 mm ²)
■ Terminals temp.sensor (if required)	max. 1,5 mm ²
■ Enclosure	polyamide, no static charge
■ Dimensions (approx.)	Ø 150 mm, height 125 mm
■ Impact resistance	7 Joule
■ Cable glands	polyamide
■ IP rating	IP65
■ Weight	approx. 0,7 kg
■ Type of mounting	wall-mounting



Type	Application	Features	Art. No.
ELAK-Ex-R1	star point for ELK-AG-...	3 x M16 (4-9 mm), 1 x threaded plug M20, 1 x threaded plug M25	0X80071
ELAK-Ex-R2	two-phase heating circuit or as star-supply box for ELK-AG-...	2 x M16 (4-9 mm), 1 x M25 (8-17 mm), 1 x threaded plug M16, 1 x threaded plug M20	0X80072
ELAK-Ex-R4	supply: 1 heating cable ELK-AG-... + EL-CTB	2 x M16 (4-9 mm), 2 x M25 (8-17 mm)	0X80074
ELAK-Ex-R7	supply: 1-3 heating cable ELSR-...	1 x M25 (8-17 mm), 2 x threaded plug M25, 1 x Bohrung M25	0X80077
ELAK-Ex-R8	supply: 1 - 2 Pt 100, 2-4 conductors + up to 2 sensor lines max. 2,5 mm ²	1 x M25 (8-17 mm), 1 x M16 (4-9 mm), 2 x threaded plug M16, 1 x threaded plug M20	0X80078

Note: Connection and termination kits are not included in the ELAK-Ex-R-system. Please place a separate order for these items which depend on the type of heating cable used. Appertaining screws are specified in chapter 'Accessories'.



Junction box for Ex-areas



This junction box ELAK-Ex-3 in conventional design is suitable for use in potentially explosive atmosphere in accordance with Ex-guidelines 94/9/CE (ATEX 95). Moreover, the unit ELAK-Ex-3 covers a significantly wide range of ambient temperatures as shown on the data sheet. The junction box can be wall-mounted and is also available with stands for mounting on pipes.

Advantages:

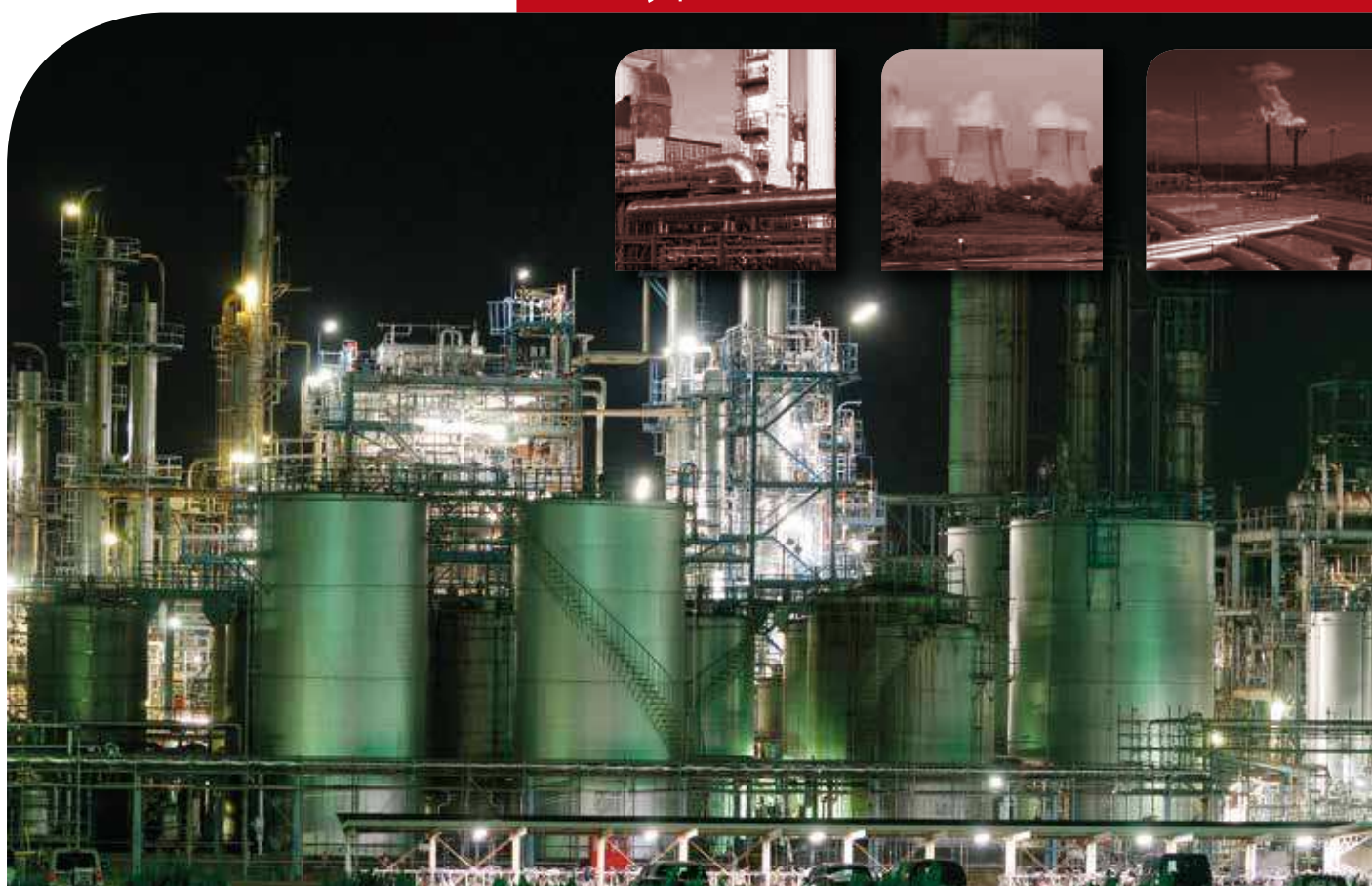
- Covers a wide range of temperatures
- Suited for mounting on pipes

Applications:

- Hazardous areas
- Chemical & petrochemical industries
- Power stations
- Industrial plants with a need for frost protection or temperature maintenance



Type **ELAK-Ex-3**



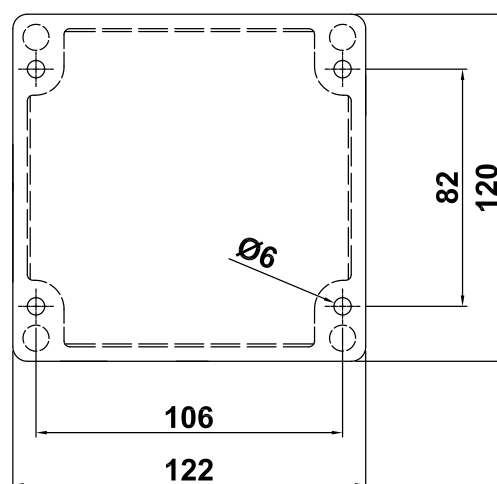


Technical information

Type ELAK-Ex-3

Data

■ Classification	II 2G Ex e IIC T6...T4 Gb II 2D Ex tb IIC T80 °C Db
■ Certificate	EPS13 ATEX 1506X, IECEX EPS 13.0002
■ Standards	EN 60079-0:2009, EN 60079-7:2007, EN 60079-31:2009
■ Ambient temperature	-40 °C up to +50 °C (T6, T85 °C) -40 °C up to +55 °C (T5, T100 °C) -40 °C up to +60 °C (T4, T100 °C)
■ Nominal current	see type plate, max. 36 A
■ Nominal voltage	see type plate, max. 550 V
■ Terminals	min. 0,5 mm², max. 10 mm² (except ELAK-Ex-3.8)
■ Enclosure	polyester
■ Dimensions (approx.)	l x h x d 122 x 120 x 90 mm
■ Impact resistance	7 Joule
■ Cable glands	polyamide
■ IP rating	IP65 / 66 depending on design
■ Weight	approx. 1 kg
■ Type of mounting	wall-mounting



The ELAK-Ex-3 unit fitted with the mounting stand ELMW-9 (122 x 120 – Art. No. 0941009) is also suited for mounting on pipes. The mounting stand is 100 mm high.

Type	Application	Features	Art. No.
ELAK-Ex-3.1	star point for ELK-AG-...	3 x M16 (3-6 mm), 35 A	0X80051
ELAK-Ex-3.2	two-phase heating circuit or as star-supply box for ELK-AG-...	1 x M25 (7-17 mm), 2 x M16 (3-6 mm), 1 x threaded plug M12	0X80052
ELAK-Ex-3.4	supply: 1 heating cable ELK-AG-...+ EL-CTB	2 x M25 (7-17 mm), 2 x M16 (3-6 mm)	0X80054
ELAK-Ex-3.7	supply: 1-3 heating cable ELSR-...	1 x M25 (7-17 mm), 2 x threaded plug M25, 1 x bore hole M25	0X80057
ELAK-Ex-3.8	supply 1 - 2 Pt 100, 2-4 wire + up to 2 conductors + up to 2 sensor lines max 2.5 mm²	1 x M25 (7-17 mm), 1 x threaded plug M25, 1 x M16 (3-6 mm), 2 x threaded plug M16,	0X80058

Note: Connection and termination kits are not included in the ELAK-Ex-3-system. Please place a separate order for these items which depend on the type of heating cable used. Appertaining screws are specified in chapter 'Accessories'.



ELTF-PTE_x temperature sensor



This temperature sensor has been designed according to Ex standard 94/9/EG especially for use in explosive gas and dust atmosphere. An emphasis on safety, simple installation and fitting accuracy were the requirements that our development engineers met.

Advantages:

- Impact protection (U-profile) for sensor protection
- Strain relief by hexagon-swaging
- Bend protection
- Decrease of parasitic coupling from surrounding electrical components because of fluoropolymer shielded sensor cable

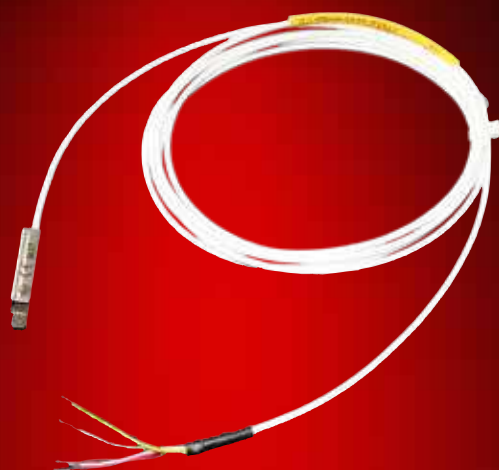
Applications:

- Hazardous areas
- Power plants
- Chemical and petrochemical plants
- Oil and gas industry
- Varnish and paint
- Heating of instruments, devices and plants
- Pipe, pump and valve heating



Type ELTF-PTE_x





Technical information

Type ELTF-PTE_x

Data

■ Classification	II 2G Ex e IIC T2...T6 Gb II 2D Ex tb IIC TX Db
■ Certificates	IECEX IBE 12.0002X, ATEX1004X
■ Standards	IEC 60079-0 ed.6, IEC 60079-7 ed.4, IEC 60079-31 ed.1
■ Permissible ambient temp.	-45 °C to +235 °C
■ Max. measuring current	10 mA
■ IP-rating	IP 65
■ Accuracy class	"B" according to IEC 751
■ Installation dimension	12 x 8 x 46 cm

Design

■ Sensor cable ELTF-PTE _x .2	4 x 0.14 mm ² , PTFE-insulated, shield Cu nickel plated, outer jacket ø 3.5 mm fluoropolymer
■ Sensor cable ELTF-PTE _x .4	6 x 0.14 mm ² , PFA-insulated shield Cu nickel plated, outer jacket ø 4.4 mm fluoropolymer
■ Protection tube	mat. 1.4301, 6 x 6 x 46 mm, with safety bar and mounting eye ø 4.1 mm

Max measuring voltage and operating temperature

Typ	Max. measuring voltage	Max operating temperature.
T6	1,3 V	80 °C
T5	1,3 V	95 °C
T4	1,5 V	130 °C
T3	1,7 V	195 °C
T2	1,7 V	235 °C

Type	Temperature sensor	Impact resistance (J)	Length connecting cable (m)	Art.-No.
ELTF-PTE _x .2	Pt100 4-conductors	7	3	0X70002
ELTF-PTE _x .4	double - Pt100 3-conductors	7	3	0X70030

Longer connecting cables upon request.



Ex-Con

Splice connector kit



This splice connector kit for eltherm heating cables was especially developed for the application in hazardous areas. In doing so, our engineers focused on a high level of safety, simple installation and perfect fit.

Advantages:

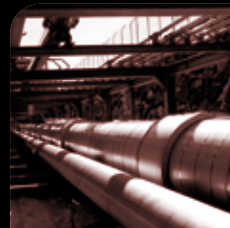
- Cold and dry termination
- Simple installation
- No restriction to eltherm branded heating cables

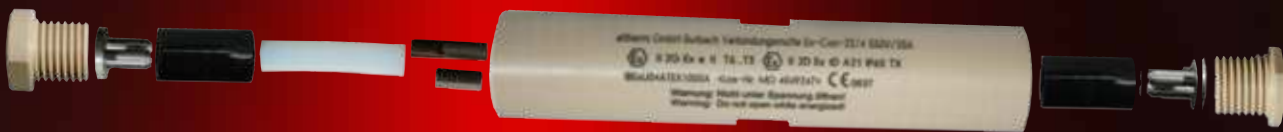
Applications:

- Chemical & petrochemical industry
- Oil & gas industry
- Paints & varnishes
- Heat tracing of apparatus, appliances & plants
- Heat tracing of pipes, pumps & valves



Type Ex-Con





Technical information

Type Ex-Con

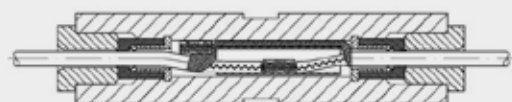
Data

■ Classification	II 2G Ex e IIC T6...T3 Gb II 2D Ex tb IIIC TX Db
■ Certificate	04ATEX1005X, 07ATEX1080X, 07ATEX1023X, IECEX IBE 13.0012 X
■ Standard	EN 60079-0:2009, EN 60079-7:2007, EN 60079-31:2009

Maximum maintenance temperature (Ex-Con-22/4 & -25/7)

Type	up to 10 A	up to 16 A	up to 20 A
T6	60° C	45° C	25° C
T5	75° C	60° C	40° C
T4	110° C	95° C	75° C
T3	170° C	155° C	135° C

Example: assembled unit



Classification for ELKM AG	Cable cross section	Impact resistance (J)	Nominal current (A)	Rated voltage (V)	Diameter (mm)	Length (mm)	Art. No.
Ex-Con-22/4	up to 2,5 mm ²	4	20	550	22	105	0X81135
Ex-Con-25/7	up to 2,5 mm ²	7	20	550	25	105	0X81115
Ex-Con-36/4*	2,5 mm ² up to 35 mm ²	4	145	550	36	175	0X81120

* Electric current / operating temperatures: Please refer to separate Instruction at www.eltherm.com (BU 083).

Classification for ELSR	Cable cross section	Impact resistance (J)	Nominal current (A)	Rated voltage (V)	Diameter (mm)	Length (mm)	Art. No.
Ex-Con-SR	3 x 1,5 mm ² and 3 x 2,5 mm ²	4	145	240 (550)	36	210	0X81125



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