

PROFIBUS PA T-Connector

- EEx (ia)



The **PROFIBUS-PA** installation products are increasingly found in the

- Food industries
- Fine and speciality chemicals
- Bulk chemicals industry.

The range is designed to accommodate a wide range of customer requirements in the harshest of environments.

These include Standard and Hazardous Area Versions with either single or multiple quick-connection variants with M12 connector or cable gland.

Weidmüller offers, for almost every application, a solution. In the case you don't see your solution here, please contact your local sales office.

PROFIBUS-PA T-Connector - EEx (ia)

- 1-way
- 2-way
- 4-way
- 8-way

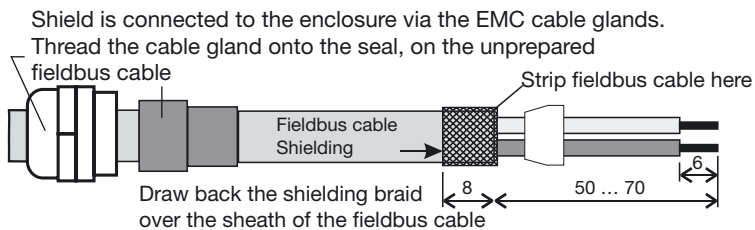
The PROFIBUS-PA T-Connector

EEx (ia) is intended for the coupling of sensors, actuators and measuring instruments in areas subject to explosion hazards.

- Approval for intrinsically safe usage ATEX approval
- Type of protection IP 66
- Modular design
- Non-interrupted BUS operations, also when being serviced
- Easy to use
- External grounding cable
- External bus terminator



Field-bus components for the Ex area EEx (ia) ATEX



Use ferrules!

The PROFIBUS-PA

is an open field-bus standard (EN 50 170, IEC 1158-2, DIN 19 245). It was specifically developed for the requirements of the Process Industry technology, in particular remote supply and intrinsic safety. PROFIBUS-PA permits several PA sensors and actuators to be operated on one common bus. The devices are supplied with power via 2-wire technology with the process data communication being executed digitally.

Integration into the PROFIBUS-DP network is carried out by means of a Segment Coupler. Specific advantages of PROFIBUS-PA :

- Reduced wiring costs
- Minimised design costs of the process control system
- Remote interrogation and programming of field devices
- Intrinsically safe version for applications in potentially explosive atmospheres.
- Continuing development and support through the PROFIBUS User and Trade Organisation (PNO)

Technical data for pages 64-67

Temperature range	
Operating temperature	from -40 to 60°C
Type of protection	IP 66
Material of housing	high-quality aluminium alloy (AL - Si 12)
Surface	stove-enamelled RAL 5015
PROFIBUS-PA - Connection	tension clamp connection 0.5 - 1.5 mm ²
Cable bushing	Cable gland M16
Clamping area	5.5 - 9.5 mm
Measuring instrument connector	M12 x 1 4-pole contacts brass, surface CUZnAu

Installation advice

Torques	
M16 cable gland on housing	6.25 Nm
Coupling ring M16 cable gland	4.5 Nm
Housing lid	1.8 - 2.0 Nm
Adapter / stub cable	hand-tight
External earthing cable	1.8 - 2.0 Nm

Ordering data

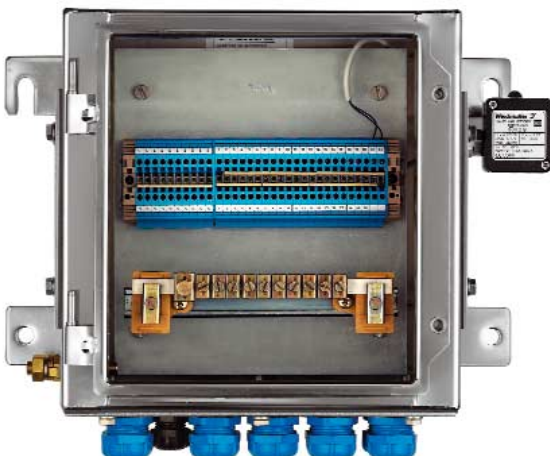
Type	Cat. No.
Profibus PA T distributor type FBCon PA CG/M12 1way EX	8564150000
Profibus PA T distributor type FBCon PA CG/M12 2way EX	8564160000
Profibus PA T distributor type FBCon PA CG/M12 4way EX	8564170000
Profibus PA T distributor type FBCon PA CG/M12 8way EX	8564250000
Profibus PA T distributor type FBCon PA CG 1way EX	8564180000
Profibus PA T distributor type FBCon PA CG 2way EX	8564190000
Profibus PA T distributor type FBCon PA CG 4way EX	8564200000
Profibus PA T distributor type FBCon PA CG 8way EX	8564240000

Bus terminating resistor see page 62

With the EEx (ia) version an external bus terminator is necessary at the end of the bus system

Weidmüller offers here the PROFIBUS-PA FB-Connector. In the event of service or plant modification, the PROFIBUS-PA FB-Connector from Weidmüller permits the connection or replacement of field devices without interrupting the bus system. Extensive accessories as well as preassembled cables and plugs round off the program.

Customer-specific solutions on request

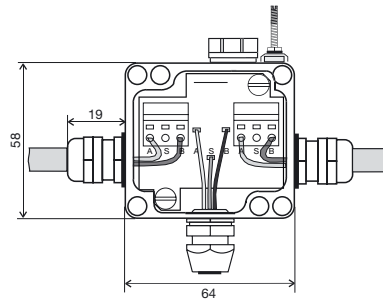


Field-bus components for the Ex area EEx (ia) ATEX with tension clamp connection

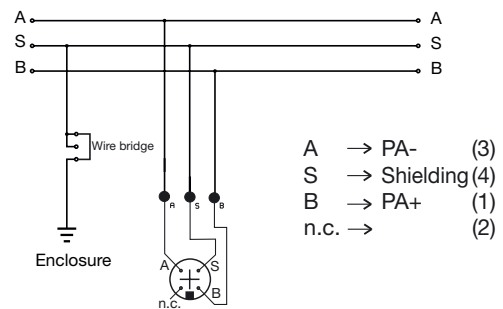
The measuring instruments are connected using an M 12 connection.
The screen is connected to the housing via the EMC cable gland.



PROFIBUS-PA T-Connector EEx 1-way Type FBCon PA CG/M12 1way



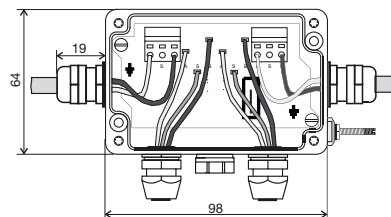
Circuit diagram



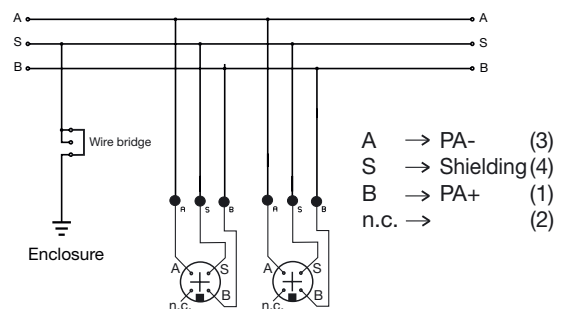
Ordering data

Type	Cat. No.
Profibus PA T distributor type FBCon PA CG/M12 1way EX	8564150000

PROFIBUS-PA T-Connector standard EEx 2-way Type FBCon PA CG/M12 2way



Circuit diagram



Ordering data

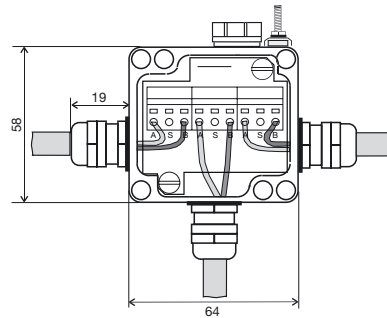
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Profibus PA T distributor type FBCon PA CG/M12 2way EX	8564160000

Field-bus components for the Ex area EEx (ia) ATEX with tension clamp connection

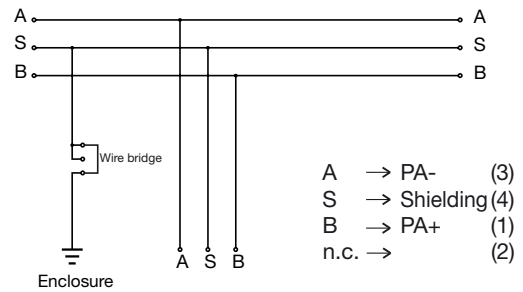
The measuring instruments are connected directly in the distributor via the EMC cable gland.
The screen is connected to the housing via the EMC cable gland.



PROFIBUS-PA T-Connector EEx EMC version 1-way Type FBCon PA CG 1way



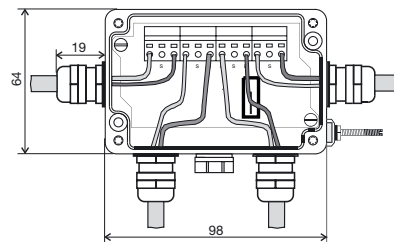
Circuit diagram



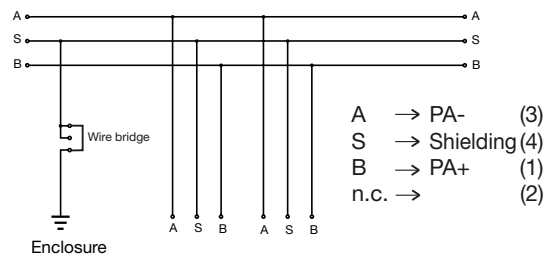
Ordering data

Type	Cat. No.
Profibus PA T distributor type FBCon PA CG 1way EX	8564180000

PROFIBUS-PA T-Connector EEx EMC version 2-way Type FBCon PA CG 2way



Circuit diagram



Ordering data

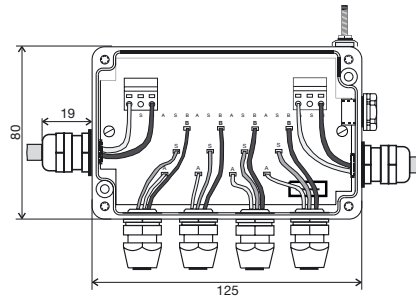
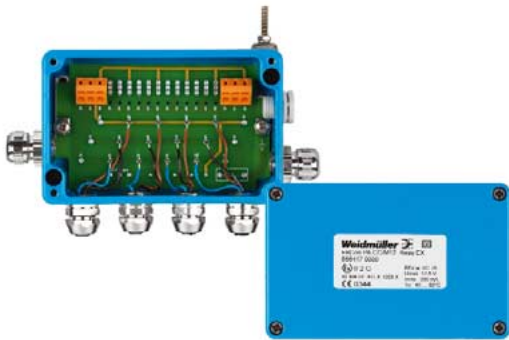
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Profibus PA T distributor type FBCon PA CG 2way EX	8564190000

Field-bus components for the Ex area EEx (ia) ATEX with tension clamp connection

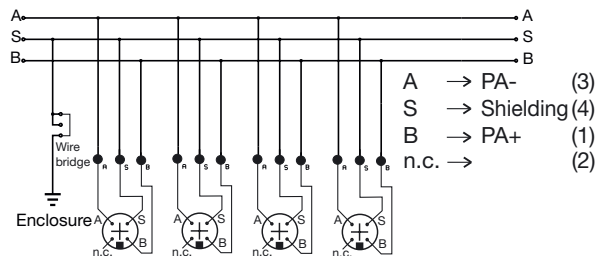
The measuring instruments are connected using an M 12 connection.
The screen is connected to the housing via the EMC cable gland.



PROFIBUS-PA T-Connector EEx 4-way Type FBCon PA CG/M12 4way



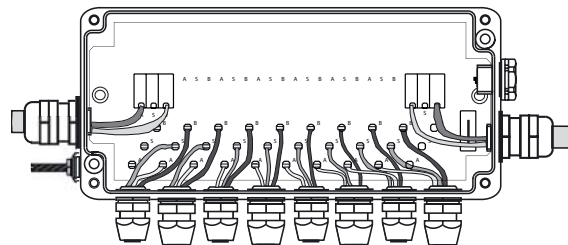
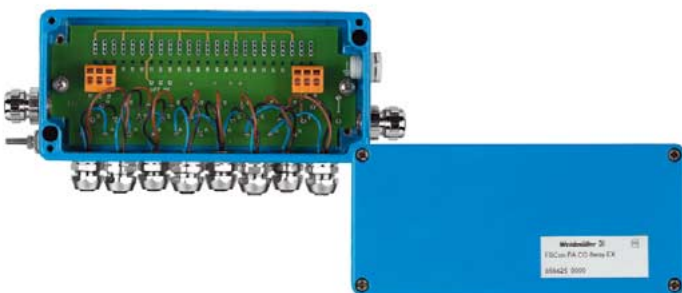
Circuit diagram



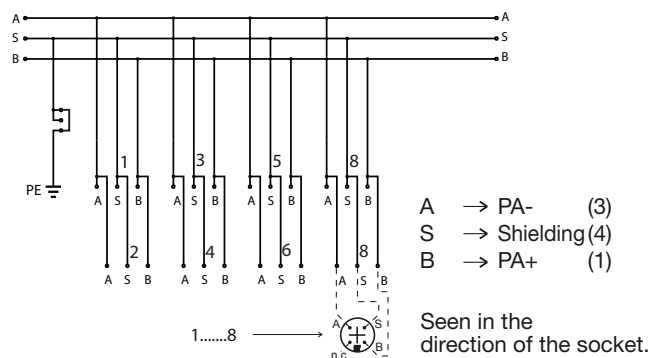
Ordering data

Type	Cat. No.
Profibus PA T distributor type FBCon PA CG/M12 4way EX	8564170000

PROFIBUS-PA T-Connector EEx 8-way Type FBCon PA CG/M12 8way



Circuit diagram



Ordering data

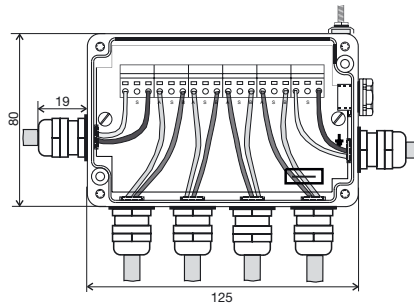
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Profibus PA T distributor type FBCon PA CG/M12 8way EX	8564250000

Field-bus components for the Ex area EEx (ia) ATEX with tension clamp connection

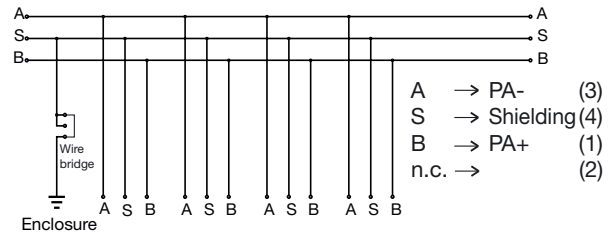
The measuring instruments are connected directly in the distributor via the EMC cable gland.
The screen is connected to the housing via the EMC cable gland.



PROFIBUS-PA T-Connector EEx EMC version 4-way Type FBCon PA CG 4way



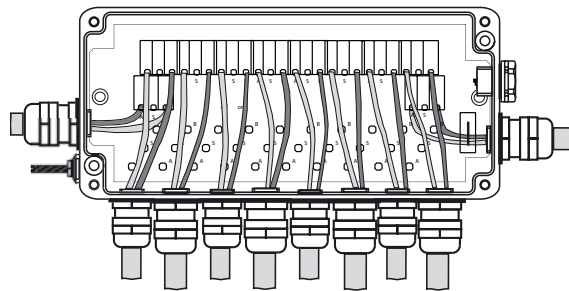
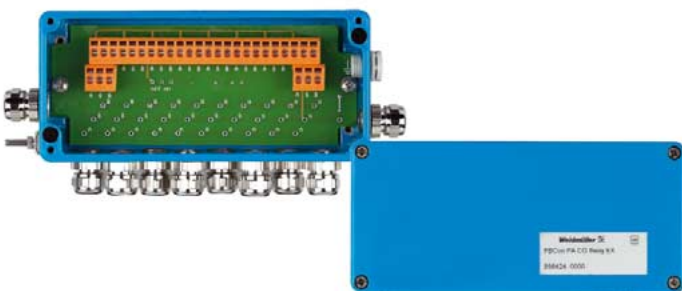
Circuit diagram



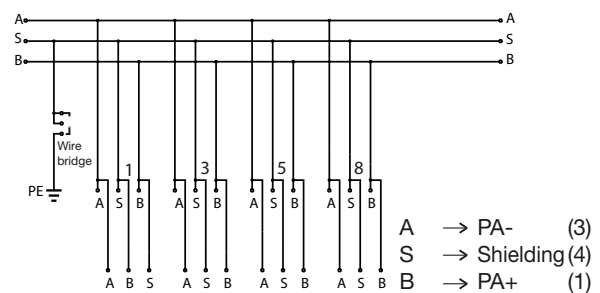
Ordering data

Type	Cat. No.
Profibus PA T distributor type FBCon PA CG 4way EX	8564200000

PROFIBUS-PA T-Connector EEx EMC version 8-way Type FBCon PA CG 8way



Circuit diagram



Ordering data

Type	Cat. No.
Profibus PA T distributor type FBCon PA CG 8way EX	8564240000

PROFIBUS PA distributor with screw connection



Technical data for pages 68-69

Temperature range/operating temperature	- 40 to 60 °C
Type of protection	IP 66
Material of housing	high-quality aluminium alloy (AL - Si 12)
Surface	stove-enamelled RAL 5015
PROFIBUS-PA - Connection	Screw terminals 0.5 - 1.5 mm ² (AWG 26 - 16)
Cable bushing	Cable gland PG 9
Clamping area	6.0 - 11.0 mm
Measuring instrument connector	
M12 x 1 4-pole	contacts brass, surface CuZnAu
PTB certificate no.	Ex-98.E.2041 (EEx ia IIC T6)
Electric circuits	U _i = 15 V; I _i = 208 mA; P _i = 1.95 W

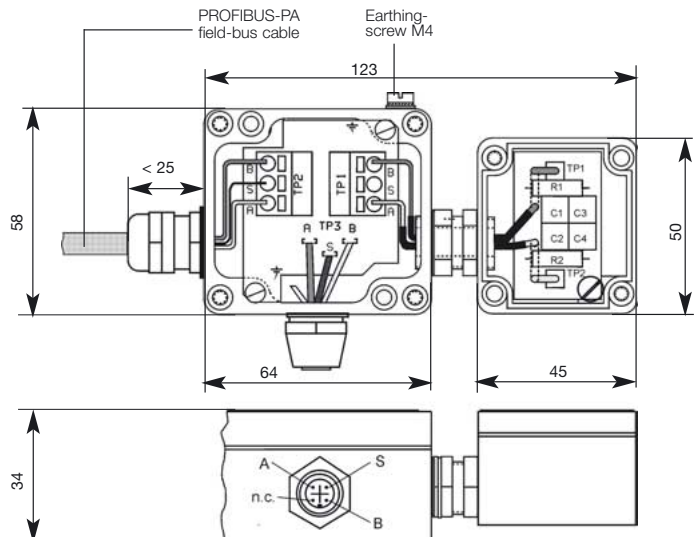
Installation advice

Torques	
Screw terminals	0.4 Nm
PG cable gland on housing	6.0 Nm
Coupling ring PG cable gland	4.0 Nm
Housing lid	1.8 - 2.0 Nm
Adapter/stub cable	hand-tight
External earthing cable	1.8 - 2.0 Nm
	The use of a cable shoe is recommended
	Connection according to diagram

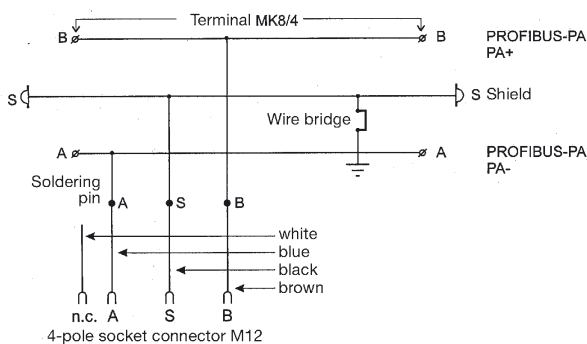
Comment:

The customer's earthing concept is to be followed.
The screen-housing connection is not used in the connecting box. If necessary, a connection must be added.
On the EEx(a) version, an external bus terminator is required at the end of the bus system.
"Profibus-PA T-Connector- EEx (ia) with external bus connection"

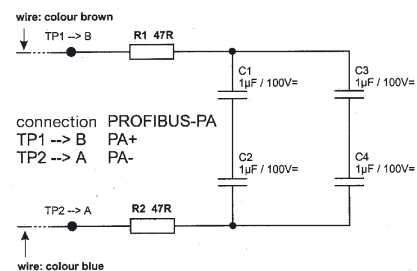
EEx(ia) with bus terminator



PROFIBUS PA T-Connector



PROFIBUS-PA T-Connector with bus terminator



Ordering data

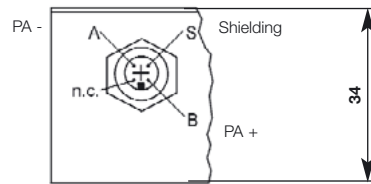
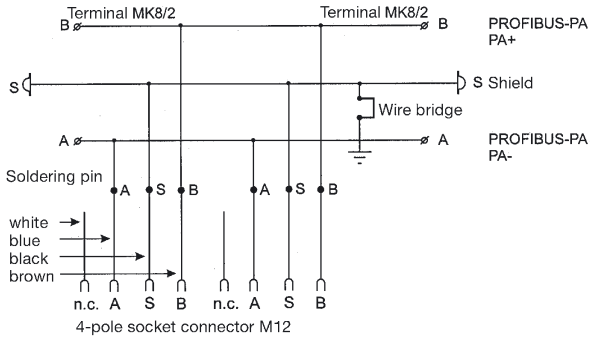
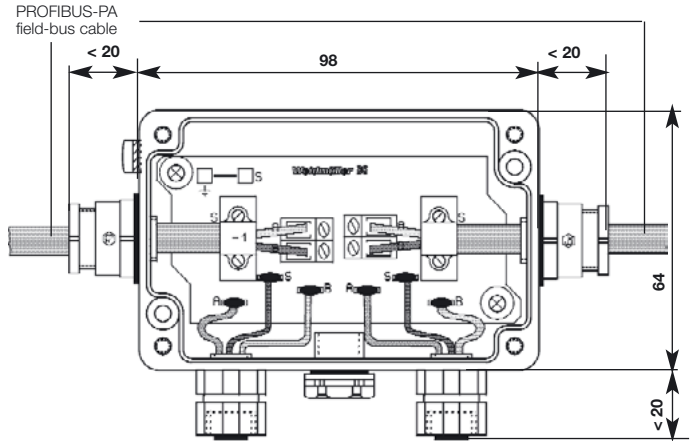
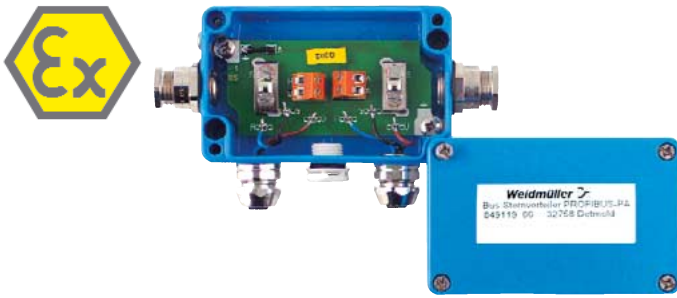
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PROFIBUS-PA T-Connector EEx(ia)	8426060000

Ordering data

Type	Cat. No.
Terminator EEx (ia)	8426070000

PROFIBUS PA distributor with screw connection

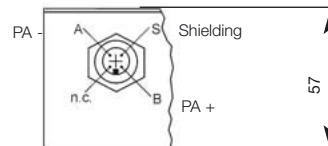
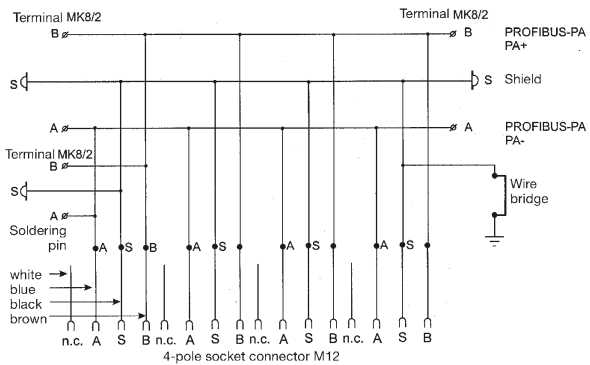
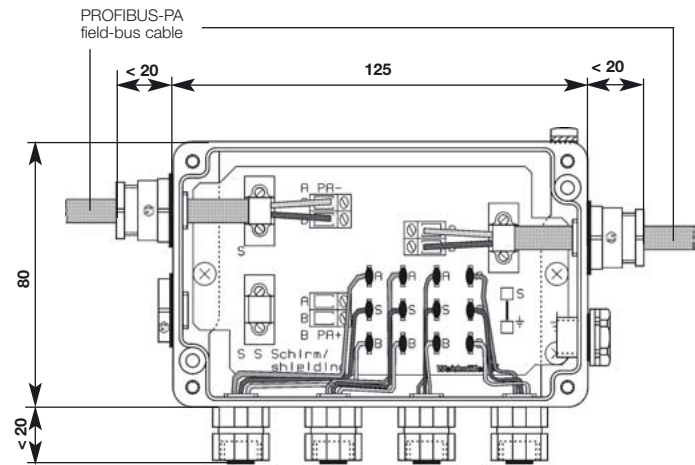
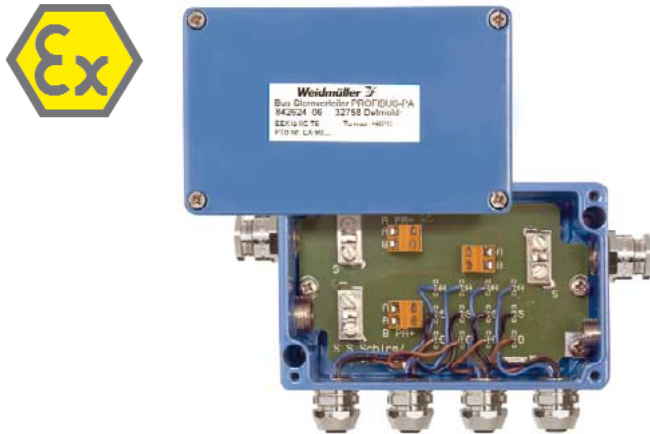
2-way Connector EEx(ia)



Ordering data

Type	Cat. No.
PROFIBUS-PA 2-WAY Connector EEx(ia)	8491190000

4-way Connector EEx(ia)



Ordering data

Type	Cat. No.
PROFIBUS-PA 4-WAY Connector EEx(ia)	8426240000