

FBCon distributors for the industrial segment



PROFIBUS-PA T-connector

- for industrial applications
- standard

The **PROFIBUS-PA** installation products are increasingly used in the:

- food and beverage industry
- Process industries and
- chemical industry.

The product range offers a wide choice of customer solutions also for use in harsh conditions. This includes standard and EX versions of single and multi-way design with M12 plug-in connection or cable gland. Weidmüller offers a solution for almost every application. If you cannot find your solution here, please contact the branch / sales office responsible for you.

PROFIBUS-PA T-connector standard

- 1, 2, 4, 8-way with EMC cable gland Industrial + EX / ATEX
- Surge protection optional

The **PROFIBUS-PA T-connector** is intended for direct coupling of measuring devices, sensors, actuators, etc.

- IP 66 Ingress protection class
- Modular design
- Uninterruptible bus operation for service situations
- Simple handling
- Low installation costs
- External earth stud
- Pressure equalising element
- EMC cable gland



Weidmüller



The PROFIBUS-PA

is an open fieldbus standard (EN 50170, IEC 1158-2, DIN 19245). It was specifically designed for the requirements of process engineering, such as remote powering and intrinsic safety. The PROFIBUS-PA enables operation of several PA sensors and actuators on one bus line.

The devices are powered using twin cable technology, and the transmission of process data is digital.

Integration in the PROFIBUS-DP network is done by means of a segment coupler.

Specific advantages of PROFIBUS-PA:

- Low wiring costs
- Minimal planning costs for the process control system
- Remote interrogation or programming of the field device
- Further development and support by the PROFIBUS User Organisation

Whether for servicing or system modification, the PROFIBUS-PA FB connectors from Weidmüller enable connection or replacement of field devices without interrupting the bus system.

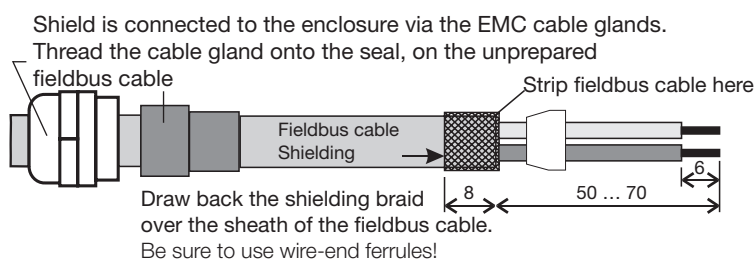
An extensive range of accessories such as pre-assembled cables and plug connectors rounds off the programme.

Technical data for PROFIBUS-PA standard distributors

Temperature range	
Operating temperature	from -40 °C to 85 °C
Ingress protection class	IP 66
Housing material	High-quality aluminium alloy (AL-Si 12)
Surface	Stove-enamelled RAL 7001
PROFIBUS-PA connection	Tension clamp connection 0.5 - 1.5 mm ²
Cable entry	Cable gland M16
Clamping range	5.5 - 9.5 mm
Measuring device connector M12 x 14-pin	Contacts MS, surface CUZnAu
Information	

Handling information

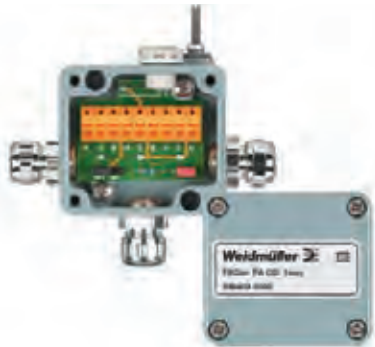
Torques	
M16 gland to housing	6.25 Nm
M16 union nut on cable gland	4.5 Nm
Housing cover	1.8 - 2.0 Nm
External earth stud	1.8 - 2.0 Nm



PROFIBUS-PA

1-channel distributor

Cable gland



1-channel distributor

M12 connection



Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 1way	branch line CG	1	8564090000
Stainless steel enclosure			
FBCon SS CG 1way	branch line CG	1	8703430000
FBCon SS PCG 1way	all connections PCG	1	8613670000

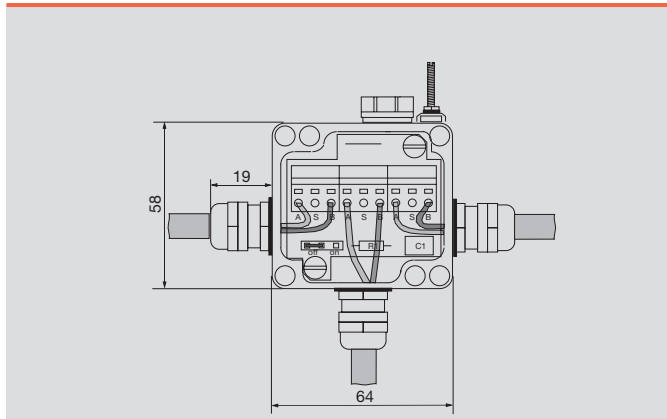
Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 1way	branch line M12	1	8564060000
Stainless steel enclosure			
FBCon SS CG/M12 1way	branch line M12	1	8726020000

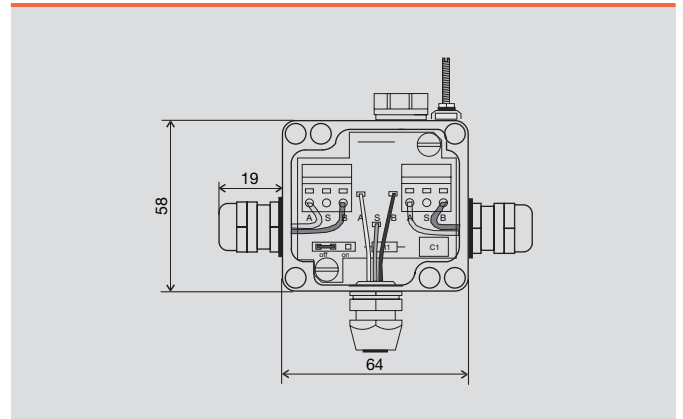
CG = brass cable gland
PCG = plastic cable gland

CG = brass cable gland
PCG = plastic cable gland

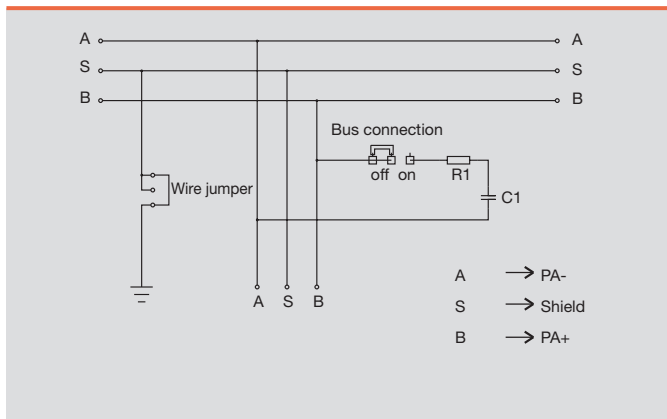
Dimensioned drawing



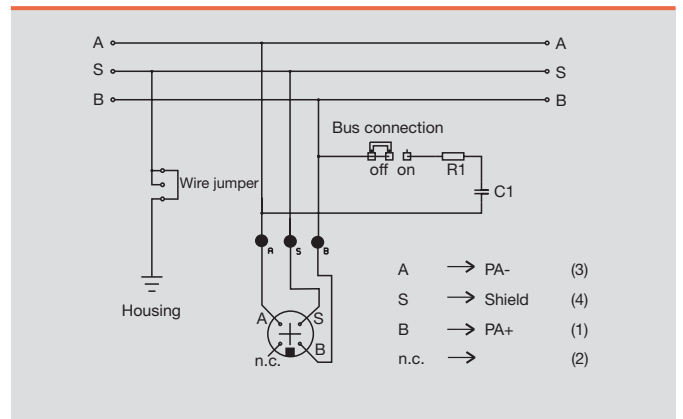
Dimensioned drawing



Wiring diagram



Wiring diagram



2-channel distributor

Cable gland



2-channel distributor

M12 connection



Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 2way	branch line CG	1	8564100000
Stainless steel enclosure			

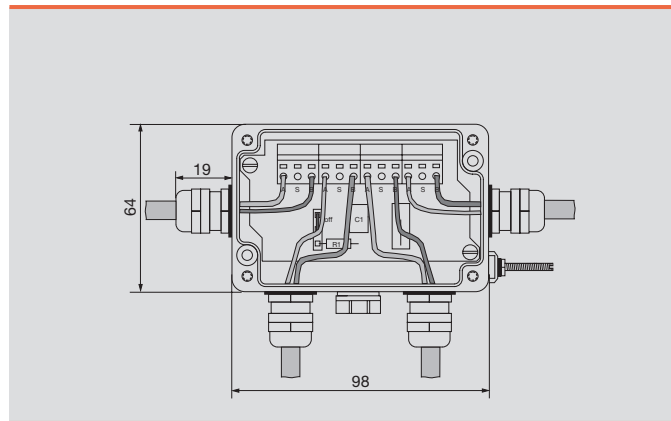
Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 2way	branch line M12	1	8564070000
Stainless steel enclosure			

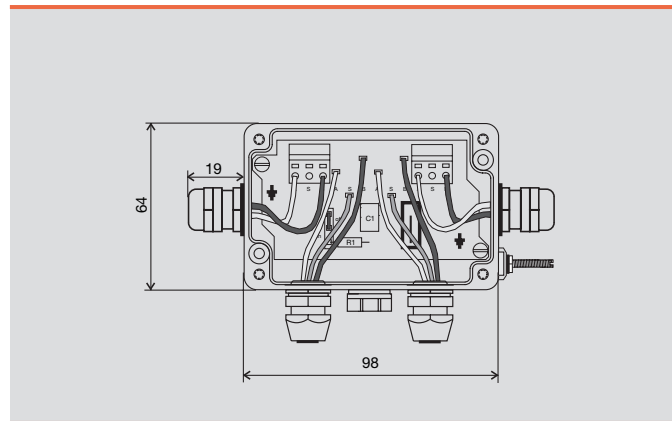
CG = brass cable gland
PCG = plastic cable gland

CG = brass cable gland
PCG = plastic cable gland

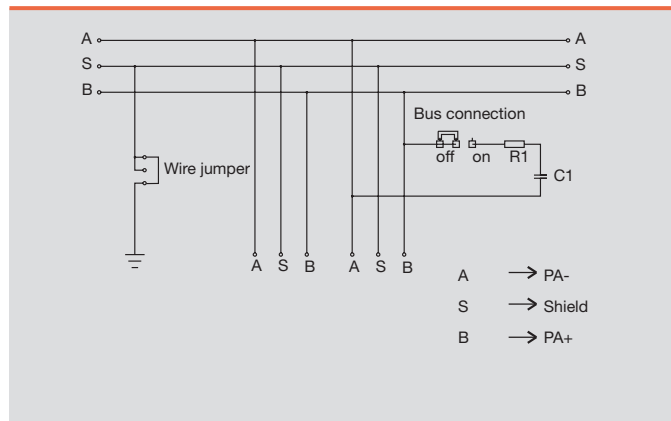
Dimensioned drawing



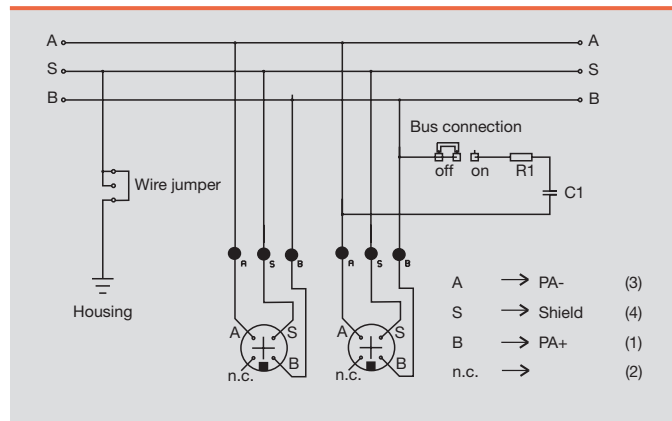
Dimensioned drawing



Wiring diagram



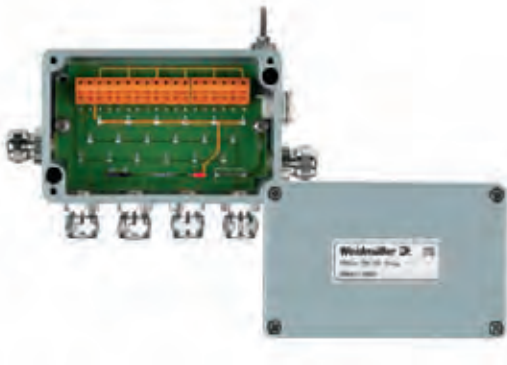
Wiring diagram



PROFIBUS-PA

4-channel distributor

Cable gland

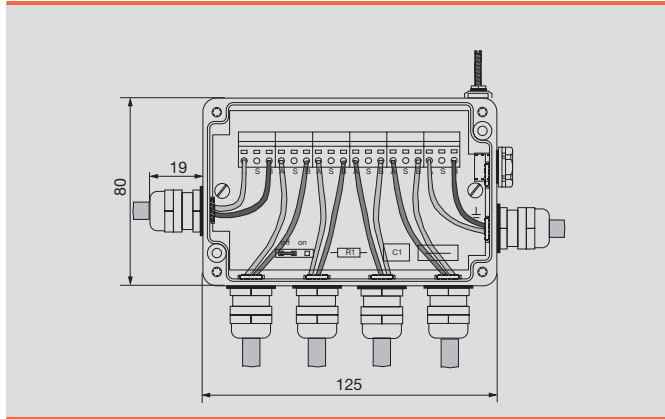


Ordering data

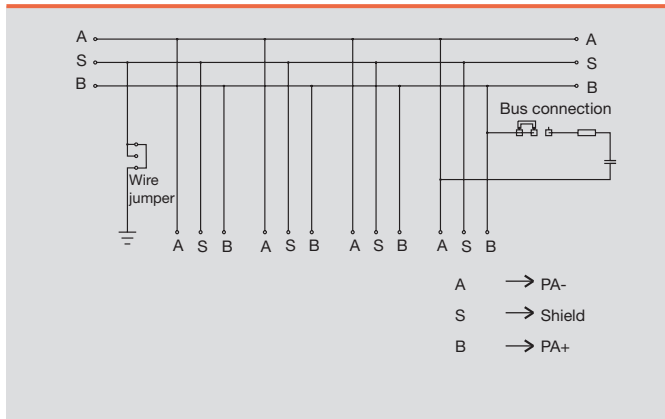
Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 4way	branch line CG	1	8564110000
Stainless steel enclosure			
FBCon SS CG 4way	branch line CG	1	8703450000
FBCon SS PCG 4way	all connections PCG	1	8613680000

CG = brass cable gland
PCG = plastic cable gland

Dimensioned drawing

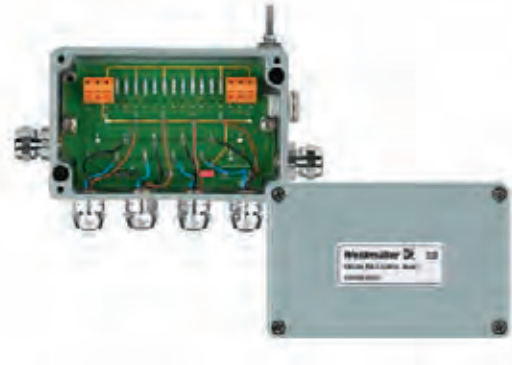


Wiring diagram



4-channel distributor

M12 connection

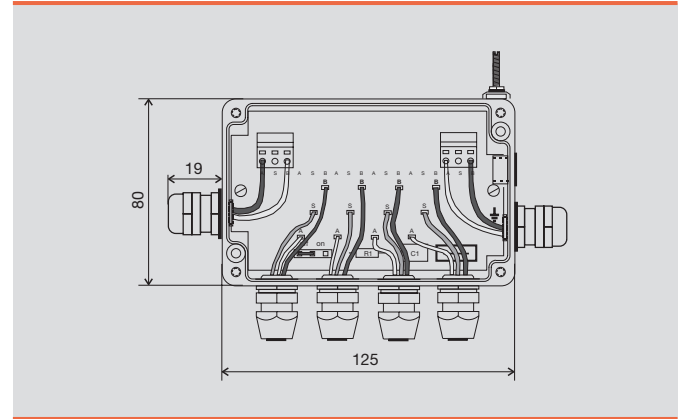


Ordering data

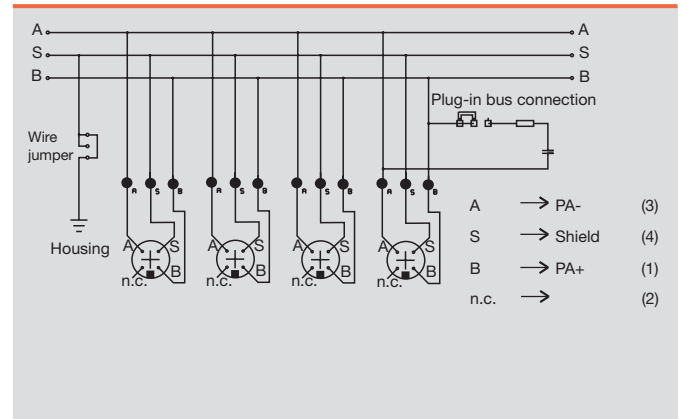
Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 4way	branch line M12	1	8564080000
Stainless steel enclosure			
FBCon SS CG/M12 4way	branch line M12	1	8726040000

CG = brass cable gland
PCG = plastic cable gland

Dimensioned drawing



Wiring diagram



8-channel distributor

Cable gland

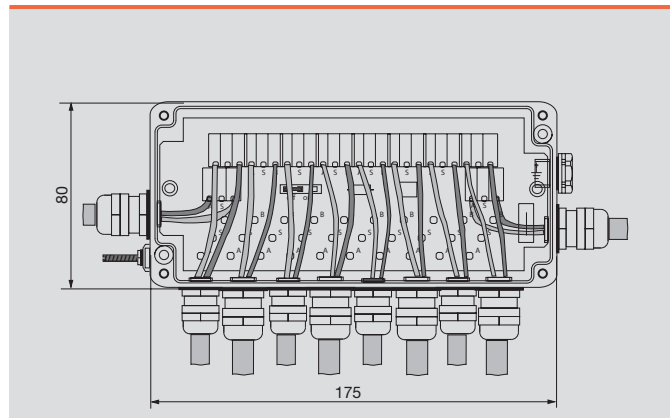


Ordering data

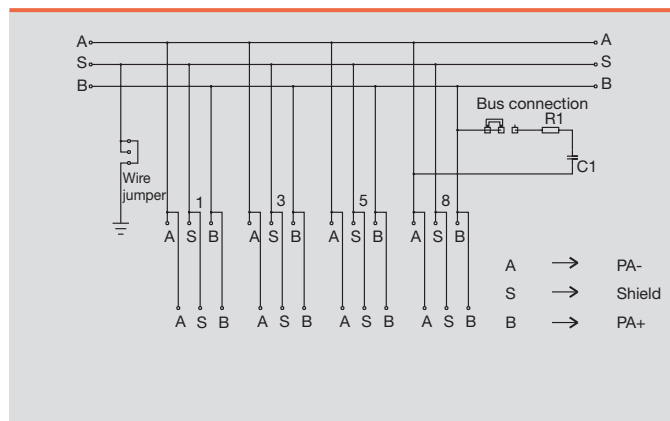
Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 8way	branch line CG	1	8564300000
Stainless steel enclosure			
FBCon SS CG 8way	branch line CG	1	8703470000
FBCon SS PCG 8way	all connections PCG	1	8640720000

CG = brass cable gland
PCG = plastic cable gland

Dimensioned drawing

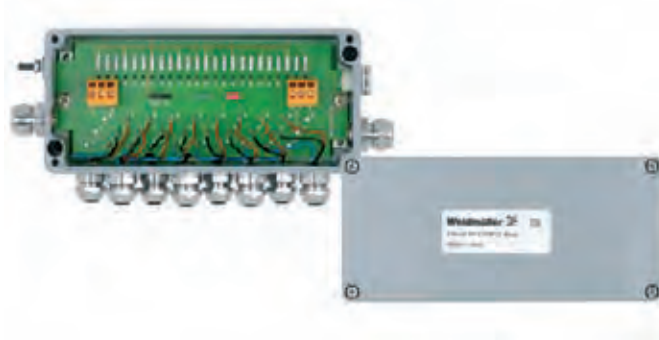


Wiring diagram



8-channel distributor

M12 connection

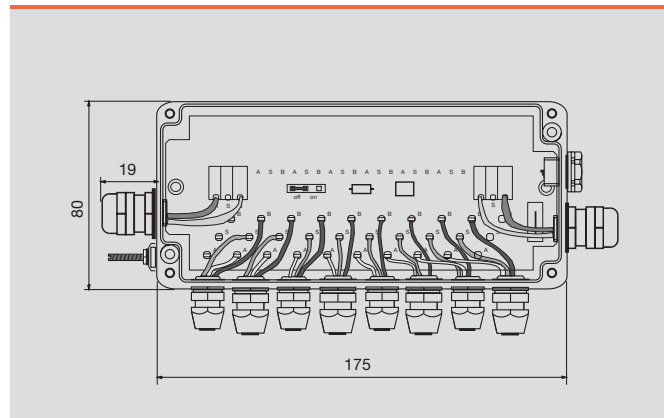


Ordering data

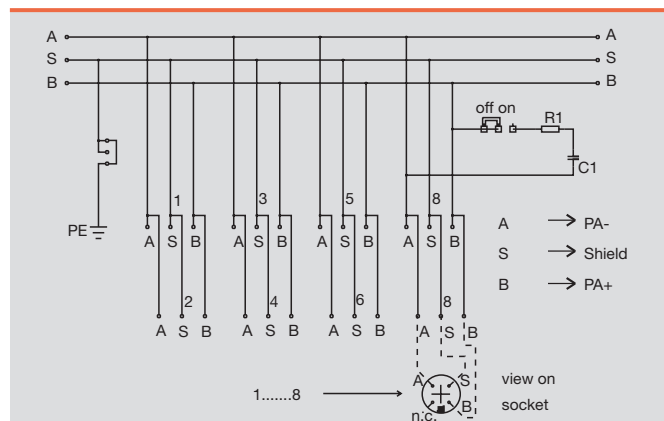
Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 8way	branch line M12	1	8564310000
Stainless steel enclosure			
FBCon SS CG/M12 8way	branch line M12	1	8726050000

CG = brass cable gland
PCG = plastic cable gland

Dimensioned drawing

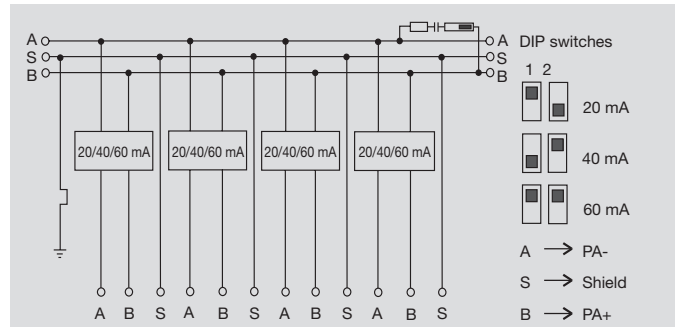


Wiring diagram



PROFIBUS-PA

Fieldbus components for industrial applications with surge protection or current limiter



Example: 4-way module with current limiter

PROFIBUS-PA T-connectors

Fine surge protection or integrated current limiting mechanisms are designed for protecting connected measuring devices, sensors or actuators from surge voltages. Gas-discharge tubes and suppressor diodes are voltage-limiting protection mechanisms. If a rapidly rising voltage pulse reaches the input of a T-connector with surge protection, the gas discharge tube ignites and discharges a high current.

The residual pulse is limited by a suppressor diode.

In the case of a slow rise in voltage, the pulse is processed by

the diode alone. The housing is connected to the protective earth via an external earth stud.

When using the connectors for current limiting, the PROFIBUS-PA network is protected against short circuits with protective circuitry.

The current can be set to either 20 mA, 40 mA or 60 mA by means of two DIP switches.

J

**Überspannungsschutz
Technische Daten**

Operating temperature	-40 °C to 85 °C
Ingress protection class	IP 67
Enclosure material	High grade aluminium alloy (AL - SI 12)
Finish	Painted RAL 7001
PROFIBUS-PA connection	Tension clamp terminals 0.5 - 1.5 mm ²
Cable entry	Cable gland M16
Branch	M12 socket (4-pin)
Cable gland clamping range	5.5 - 9.5 mm
Nominal voltage DC/AC	U _N = 24 V DC/18 V AC
Max. permissible operating voltage	U _C = 30 V DC/21 V AC
Rated current at 30 °C	I _N = 500 mA
Trip surge voltage (1 kV/μs)	< 600 V
Rated discharge surge current (8/20 μs)	I _{SN} = 10 KA (wire-wire, wire-PE)
Output voltage limit (8/20 μs)	U _p = 65 V
PROFIBUS-PA bus terminator	Via jumper

Installation advice

Torques	
Screw terminals	0.4 Nm
M16 cable gland at enclosure	6.0 Nm
Union nut M16 cable gland	4.0 Nm
Enclosure cover	1.8 - 2.0 Nm
External earthing cable	1.8 - 2.0 Nm

**Limiter
Technical data**

Operating temperature	-40 °C to 85 °C
Ingress protection class	IP 67
Enclosure material	High grade aluminium alloy (AL - SI 12)
Finish	Painted RAL 7001
PROFIBUS-PA connection	Tension clamp terminals 0.5 - 1.5 mm ²
Cable entry	Cable gland M16
Branch	M12 socket (4-pin)
Cable gland clamping range	5.5 - 9.5 mm
Short-circuit protection per station	20, 40, 60 mA settings
PROFIBUS-PA bus terminator	Via jumper

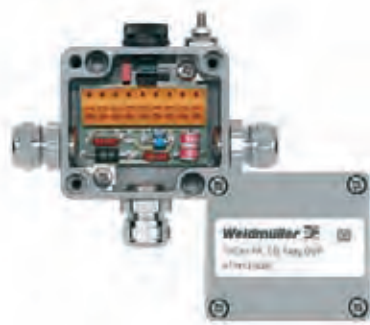
Installation advice

Torques	
Screw terminals	0.4 Nm
M16 cable gland at enclosure	6.0 Nm
Union nut M16 cable gland	4.0 Nm
Enclosure cover	1.8 - 2.0 Nm
External earthing cable	1.8 - 2.0 Nm



1-channel distributor (OVP)

Cable gland



1-channel distributor (OVP)

M12 connection



Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 1way OVP	branch line CG	1	8714120000
Stainless steel enclosure			
FBCon SS PCG 1way OVP	all connections PCG	1	8715270000

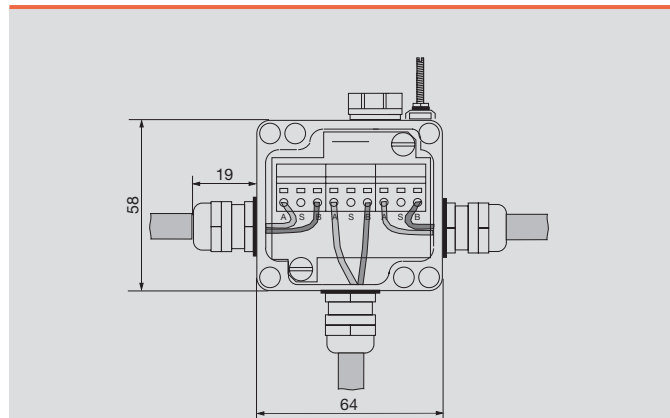
Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 1way OVP	branch line M12	1	8714080000
Stainless steel enclosure			

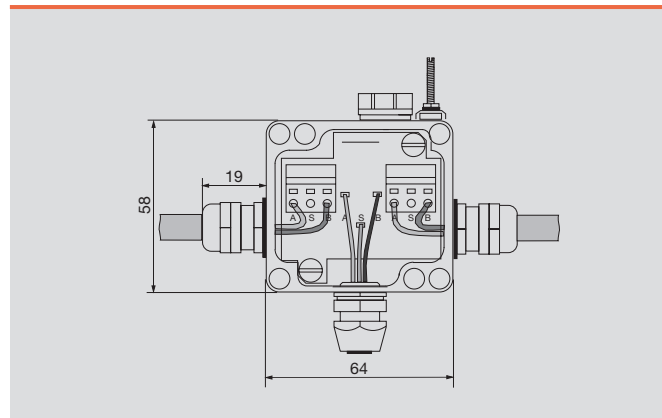
CG = brass cable gland
PCG = plastic cable gland

CG = brass cable gland
PCG = plastic cable gland

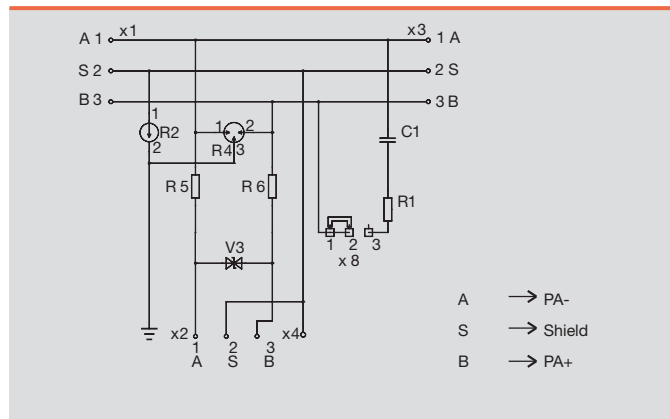
Dimensioned drawing



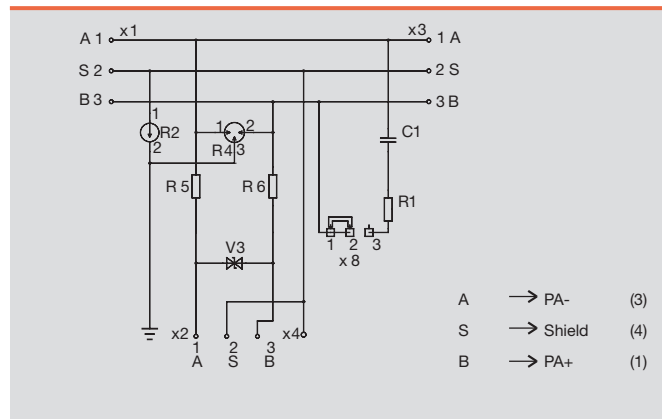
Dimensioned drawing



Wiring diagram



Wiring diagram

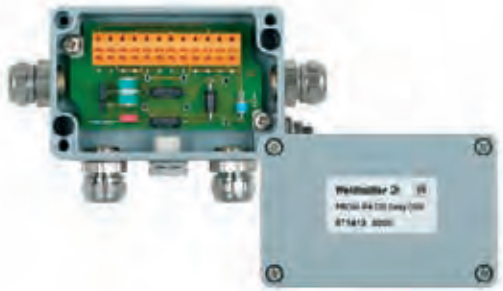


Weidmüller

PROFIBUS-PA

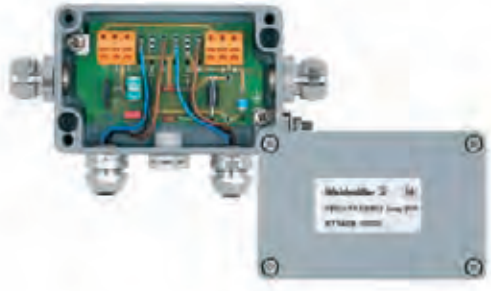
2-channel distributor (OVP)

Cable gland



2-channel distributor (OVP)

M12 connection



Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 2way OVP	branch line CG	1	8714130000
Stainless steel enclosure			

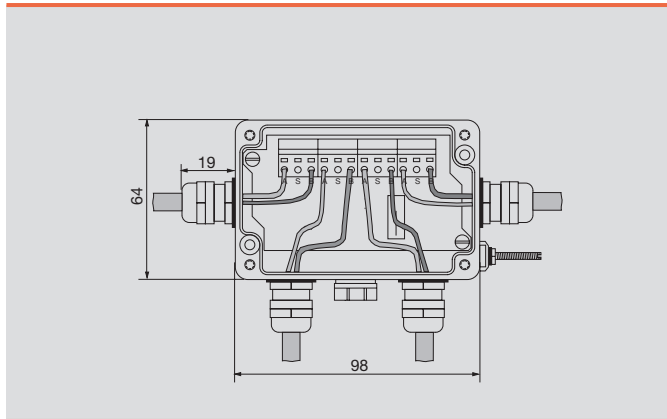
Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 2way OVP	branch line M12	1	8714090000
Stainless steel enclosure			

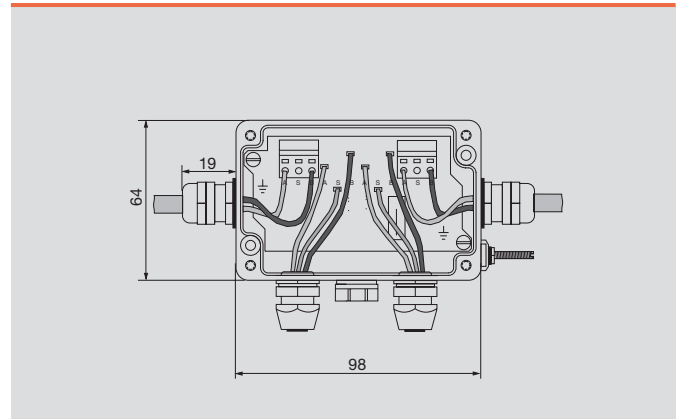
CG = brass cable gland
PCG = plastic cable gland

CG = brass cable gland
PCG = plastic cable gland

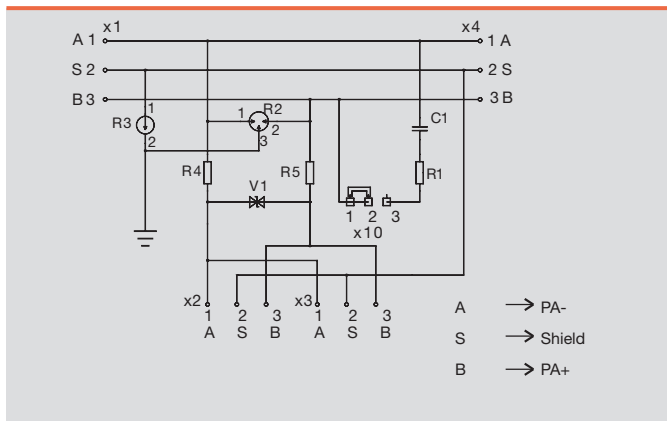
Dimensioned drawing



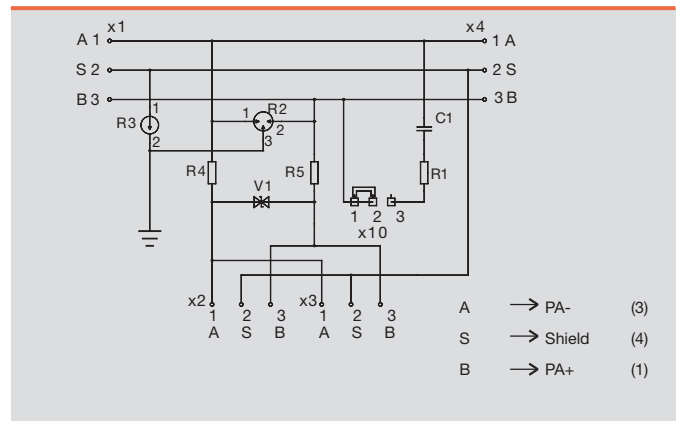
Dimensioned drawing



Wiring diagram



Wiring diagram



4-channel distributor (OVP)

Cable gland



4-channel distributor (OVP)

M12 connection



Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 4way OVP	branch line CG	1	8714140000
Stainless steel enclosure			
FBCon SS PCG 4way OVP	all connections PCG	1	8726080000

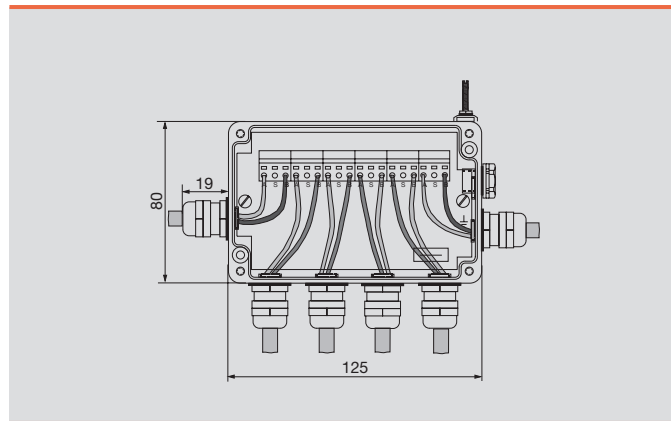
Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 4way OVP	branch line M12	1	8714100000
Stainless steel enclosure			

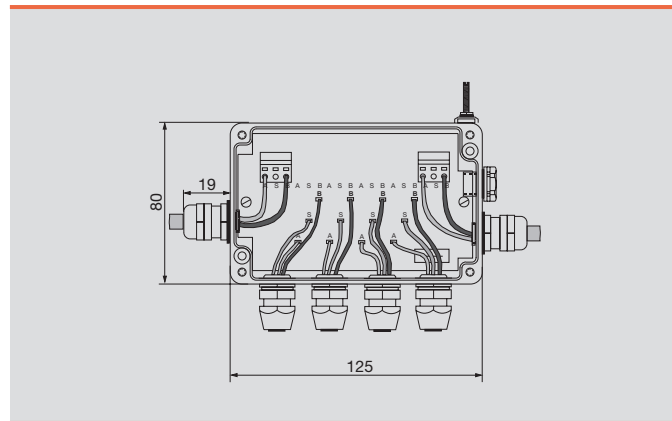
CG = brass cable gland
PCG = plastic cable gland

CG = brass cable gland
PCG = plastic cable gland

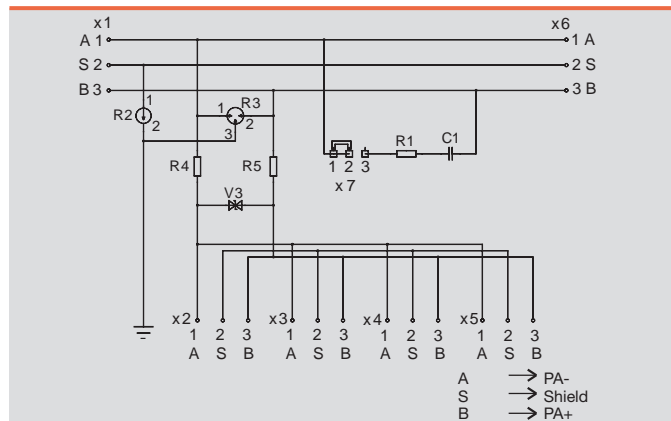
Dimensioned drawing



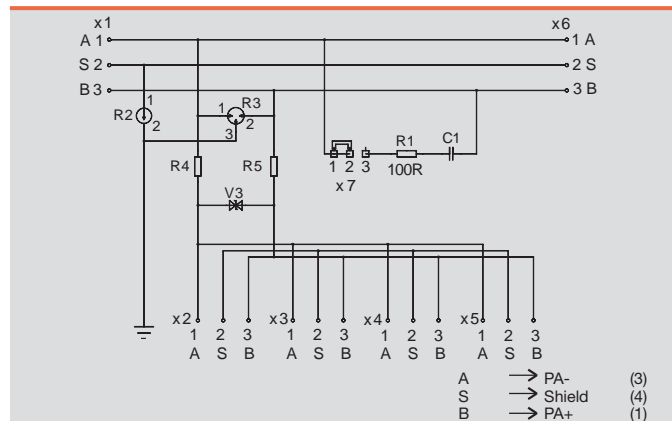
Dimensioned drawing



Wiring diagram



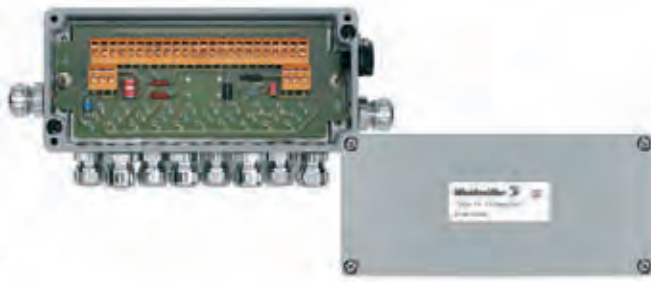
Wiring diagram



PROFIBUS-PA

8-channel distributor (OVP)

Cable gland

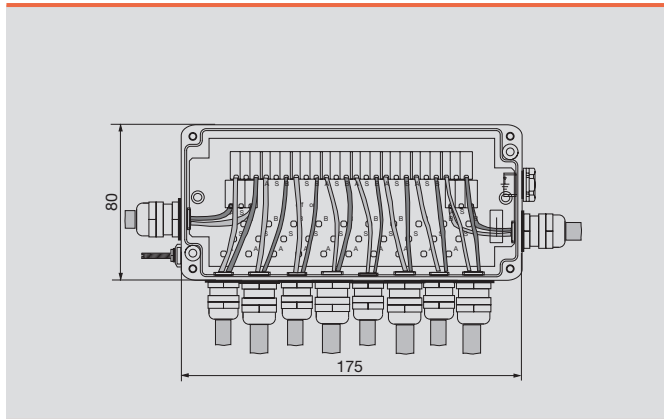


Ordering data

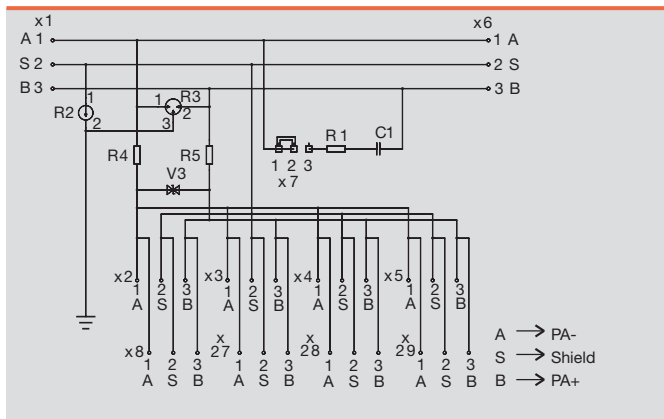
Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 8way OVP	branch line CG	1	8714150000
Stainless steel enclosure			
FBCon SS PCG 8way OVP	all connections PCG	1	8726090000

CG = brass cable gland
PCG = plastic cable gland

Dimensioned drawing



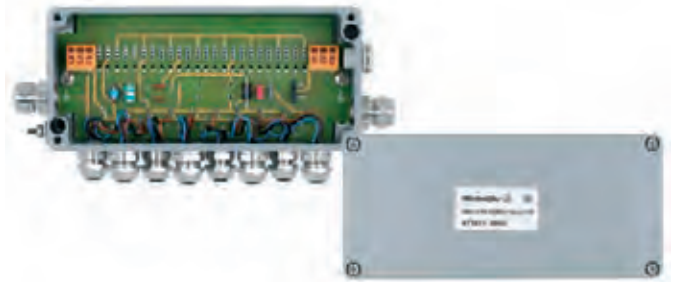
Wiring diagram



Weidmüller

8-channel distributor (OVP)

M12 connection

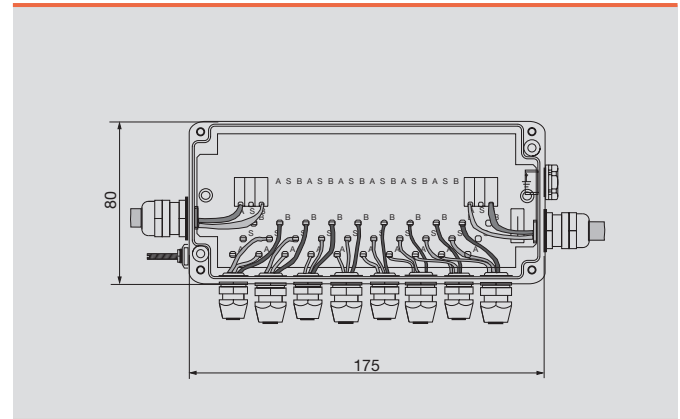


Ordering data

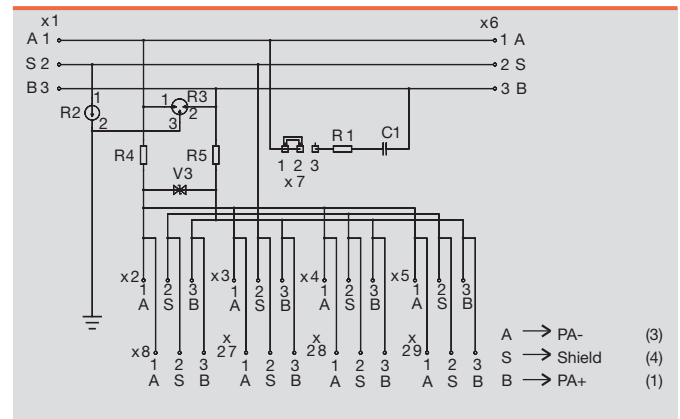
Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 8way OVP	branch line M12	1	8714110000
Stainless steel enclosure			

CG = brass cable gland
PCG = plastic cable gland

Dimensioned drawing

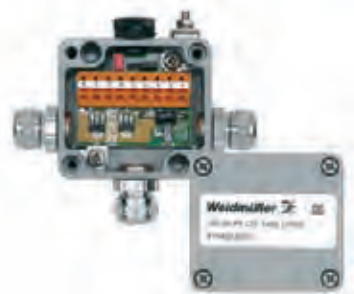


Wiring diagram



1-channel distributor (limiter)

Cable gland



1-channel distributor (limiter)

M12 connection



Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 1way Limiter	branch line CG	1	8714200000
Stainless steel enclosure			
FBCon SS PCG 1way Limiter	all connections PCG	1	8726110000

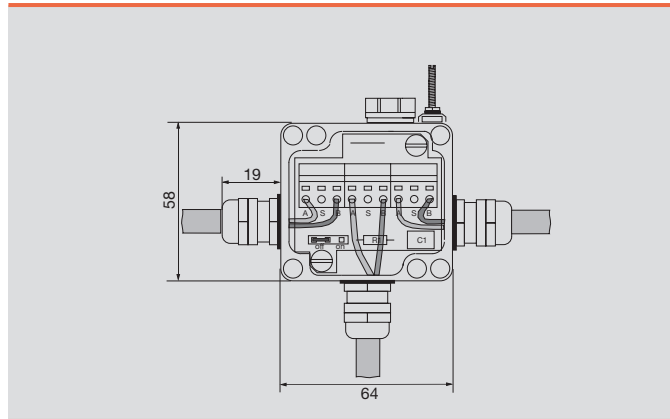
Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 1way Limiter	branch line M12	1	8714160000
Stainless steel enclosure			

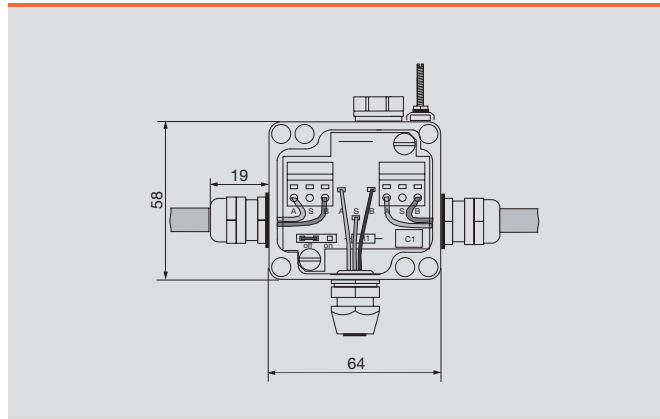
CG = brass cable gland
PCG = plastic cable gland

CG = brass cable gland
PCG = plastic cable gland

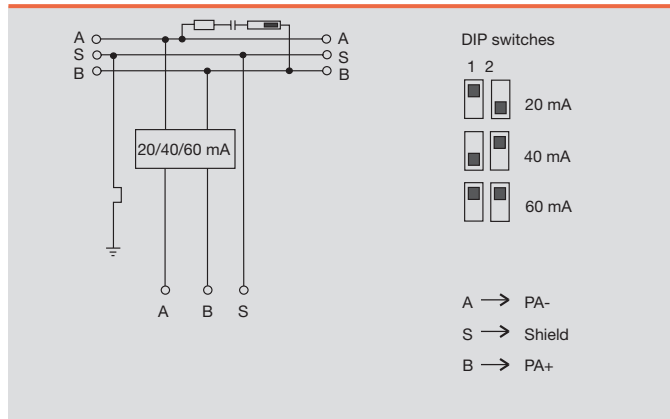
Dimensioned drawing



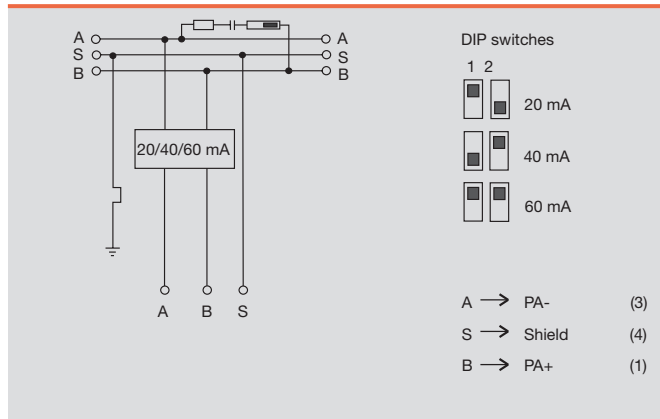
Dimensioned drawing



Wiring diagram



Wiring diagram



PROFIBUS-PA

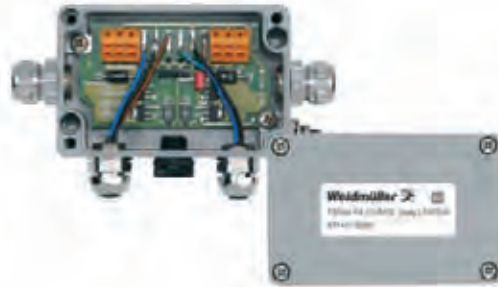
2-channel distributor (limiter)

Cable gland



2-channel distributor (limiter)

M12 connection



Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 2way Limiter	branch line CG	1	8714210000
Stainless steel enclosure			

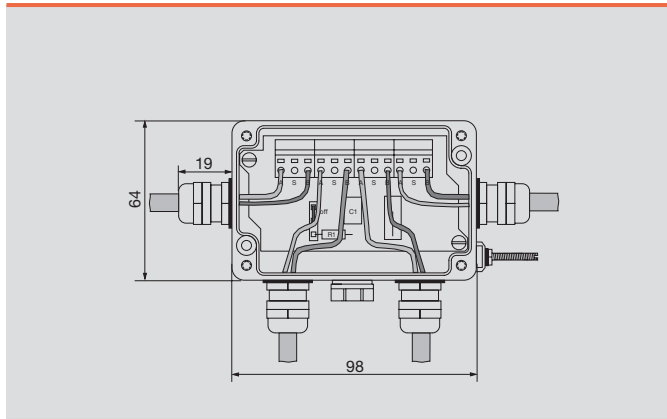
Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 2way Limiter	branch line M12	1	8714170000
Stainless steel enclosure			

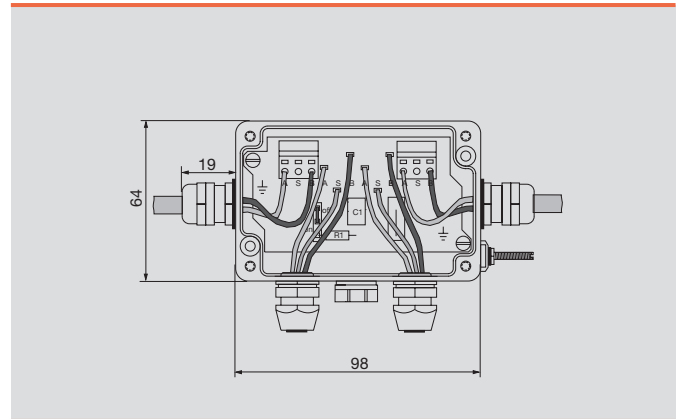
CG = brass cable gland
PCG = plastic cable gland

CG = brass cable gland
PCG = plastic cable gland

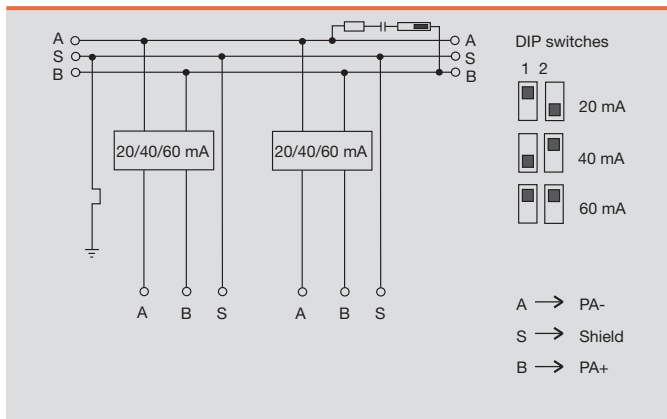
Dimensioned drawing



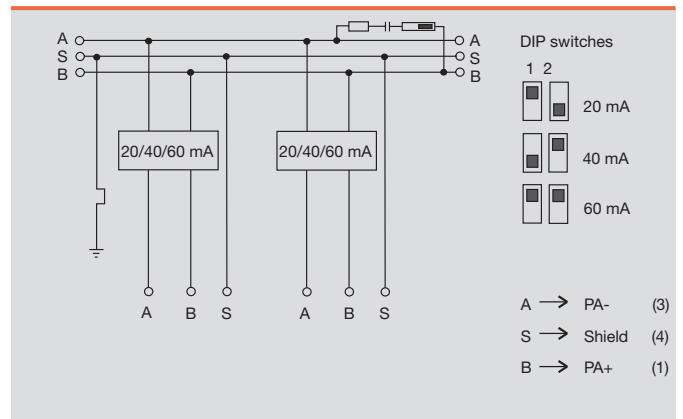
Dimensioned drawing



Wiring diagram

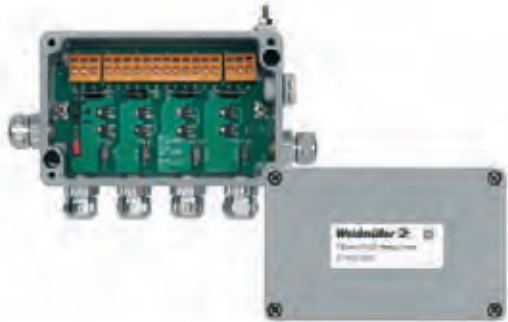


Wiring diagram



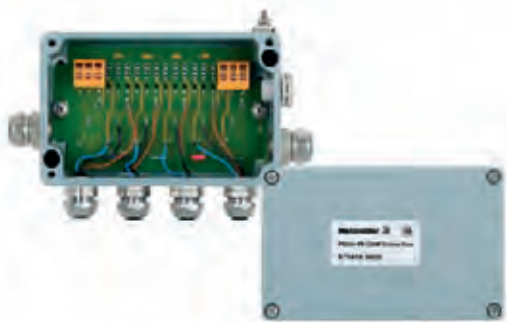
4-channel distributor (limiter)

Cable gland



4-channel distributor (limiter)

M12 connection



Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 4way Limiter	branch line CG	1	8714220000
Stainless steel enclosure			
FBCon SS PCG 4way Limiter	all connections PCG	1	8715260000

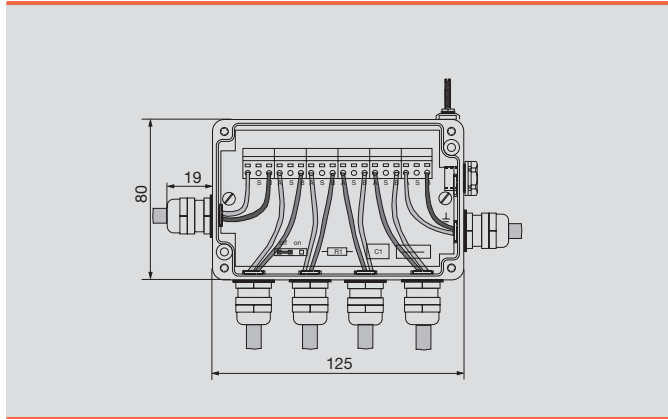
Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 4way Limiter	branch line M12	1	8714180000
Stainless steel enclosure			

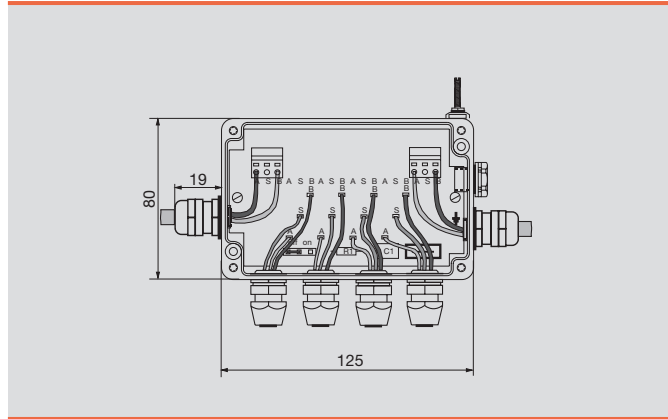
CG = brass cable gland
PCG = plastic cable gland

CG = brass cable gland
PCG = plastic cable gland

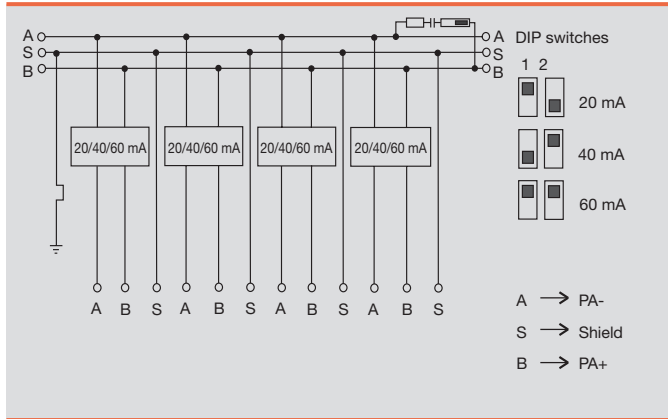
Dimensioned drawing



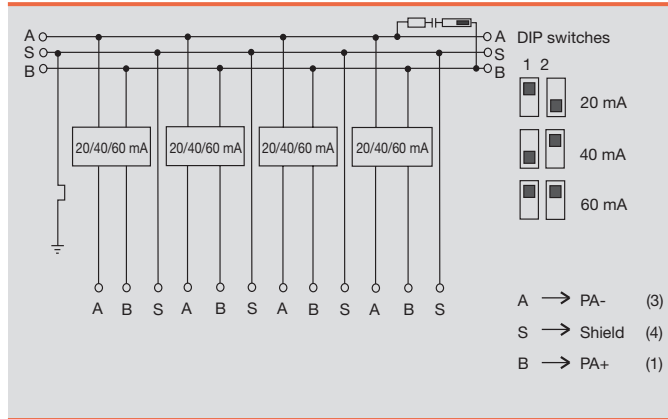
Dimensioned drawing



Wiring diagram



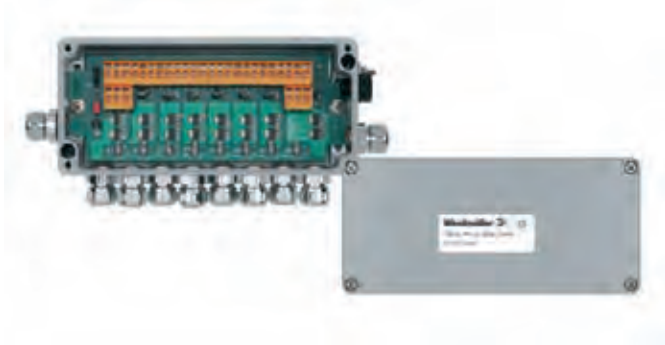
Wiring diagram



PROFIBUS-PA

8-channel distributor (limiter)

Cable gland



8-channel distributor (limiter)

M12 connection



Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG 8way Limiter	branch line CG	1	8714230000
Stainless steel enclosure			
FBCon SS PCG 8way Limiter	all connections PCG	1	8726160000

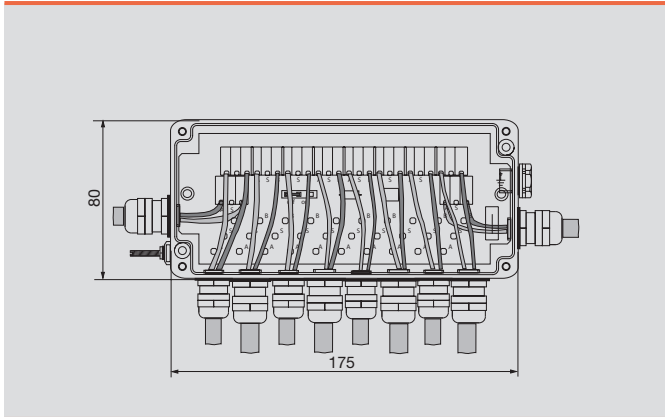
Ordering data

Type	Type of connection	Qty.	Order No.
Aluminium housing			
FBCon PA CG/M12 8way Limiter	branch line M12	1	8714190000
Stainless steel enclosure			

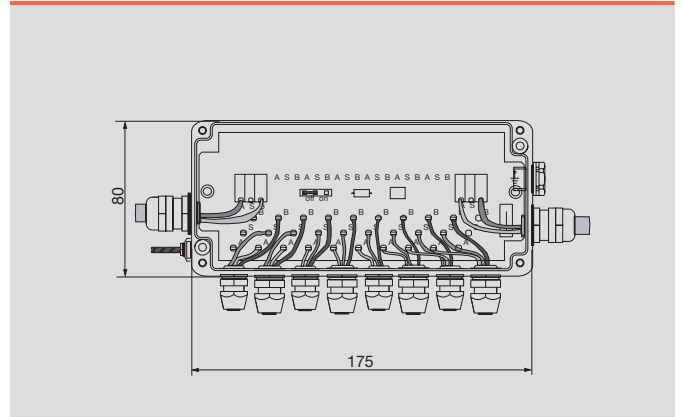
CG = brass cable gland
PCG = plastic cable gland

CG = brass cable gland
PCG = plastic cable gland

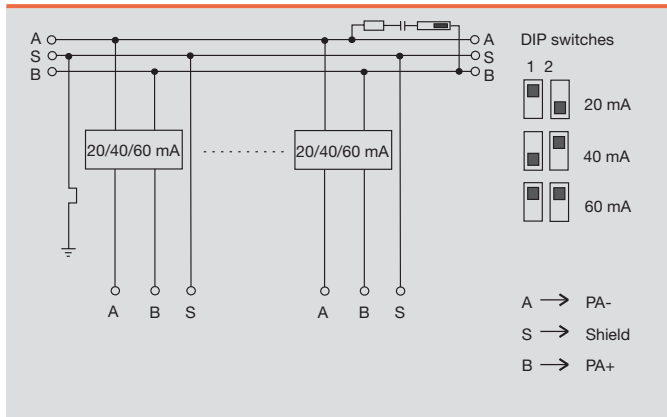
Dimensioned drawing



Dimensioned drawing



Wiring diagram



Wiring diagram

