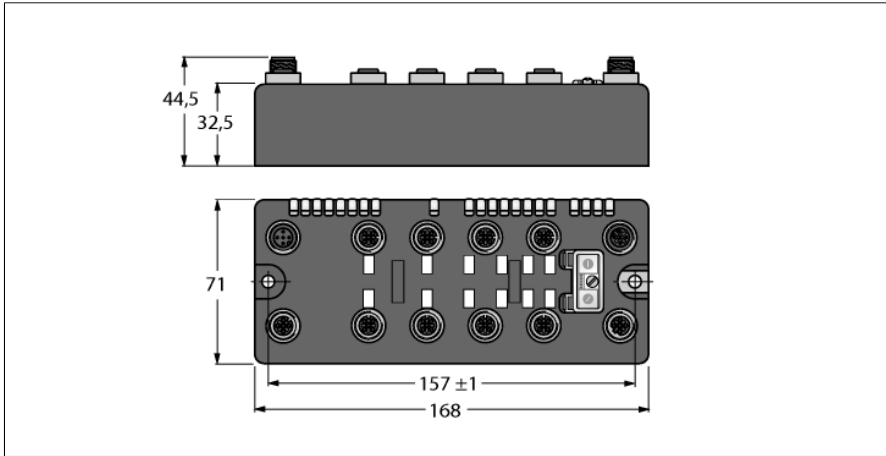


BL compact Fieldbus Station for PROFIBUS-DP
8 Digital PNP Inputs and 4 Digital PNP Outputs
BLCDP-8M12LT-8DI-PD-4DO-2A-P



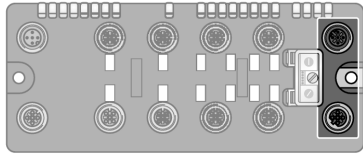
- On-Machine™ compact fieldbus I/O blocks
- PROFIBUS-DP slave
- 9.6 kbps ... 12 Mbps
- Two 5-pin, reverse-keyed M12 male receptacles for fieldbus connection
- 2 rotary coding switches for node-address
- IP 69K
- M12 I/O ports
- LEDs indicating status and diagnostics
- Electronics galvanically isolated from the field level via optocouplers
- 8 Digital PNP Inputs, 24 VDC
- Channel diagnostics
- Wire-break monitoring
- Adjustable filter times (input delay)
- Input inverting possible
- 4 digital PNP outputs, 24 VDC
- Max. 2 A per output (4 A total)

Type designation	BLCDP-8M12LT-8DI-PD-4DO-2A-P
Ident no.	6811176
Nominal system voltage	24 VDC
System power supply	Via auxiliary power
Voltage supply connection	2 x M12, 5-pin
Admissible range V_i	18...30 VDC
Nominal current V_i	200 mA
Max. current V_i	2 A
Admissible range V_o	18...30 VDC
Nominal current V_o	100 mA
Max. current V_o	4 A
Fieldbus transmission rate	9.6 kbps ... 12 Mbps
Adjustment transmission rate	Automatic detection
Fieldbus address range	0...99
Fieldbus addressing	2 dec. Rotary coding switches
Fieldbus connection technology	2 x M12
	5-pin, reverse-keyed
Fieldbus termination	External
Service interface	RS232 interface
Digital inputs	
Input type	PNP
Type of input diagnostics	Channel diagnostics
Sensor supply (V_{sENS})	24 VDC, 100 mA short-circuit limiting
Low level signal voltage	< 4.5 VDC
High level signal voltage	7...30 VDC
Low level signal current	< 1.5 mA
High level signal current	2.1 ... 3.7 mA
Input delay	0.25 or 2.5 (configurable) ms
Digital outputs	
Output type	PNP
Type of output diagnostics	Channel diagnostics
Sensor supply (V_{sENS})	24 VDC
Output current per channel	2 A
Output voltage	24 VDC from supply voltage
Output delay	3 ms
Load type	Resistive, inductive, lamp load
Load resistance, resistive	> 12 Ω
Load resistance, inductive	< 1.2 H
Lamp load	< 10 W
Switching frequency, resistive	< 200 Hz
Switching frequency, inductive	< 2 Hz
Switching frequency, lamp load	< 20 Hz
Short-circuit protection	yes

BL compact Fieldbus Station for PROFIBUS-DP
8 Digital PNP Inputs and 4 Digital PNP Outputs
BLCDP-8M12LT-8DI-PD-4DO-2A-P

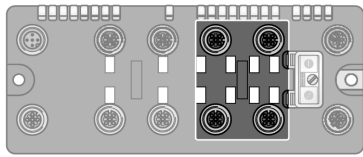
Dimensions	168 x 71 x 32.5 mm
Mounting	2 × 5.4 mm diameter holes, 1.7 Nm torque
Weight	620 ± 20 g
Housing material	Glass fiber reinforced nylon, nickel-plated connector
Housing color	Black
Material screw	Nickel-plated brass
Material label	Polyester with polycarbonate overlay
Ground label material	Nickel-plated brass
Protection class	IP67 IP69K
Ambient temperature	-40...+70 °C
Storage temperature	-40...+85 °C
Relative humidity	15...95 %, non-condensing
Vibration test	Acc. to IEC 61131-2
- up to 20 g (at 10 up to 150 Hz)	For mounting on base plate or machinery
Shock test	acc. to IEC 61131-2
Electromagnetic compatibility	Acc. to IEC 61131-2
Approvals and certificates	CE, cULus

BL compact Fieldbus Station for PROFIBUS-DP
8 Digital PNP Inputs and 4 Digital PNP Outputs
BLCDP-8M12LT-8DI-PD-4DO-2A-P



PROFIBUS-DP

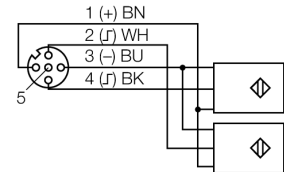
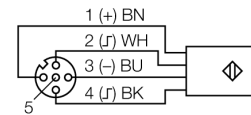
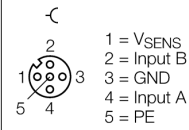
Fieldbus cable (example): RSSW RKSU 455-2M ident-no. U0350
or RSSW-RKSU455-2M ident-no. 6602222



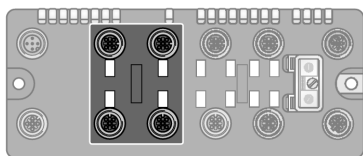
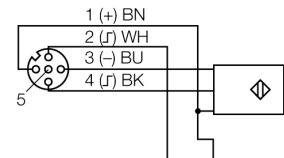
Slot 1: Digital Inputs

Extension cable (example): RK 4.4T-2-RS 4.4T ident-no. U2445 or
RKC4.4T-2-RSC4.4T/TEL ident-no. 6625208

Pin Assignment



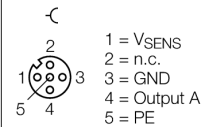
Wiring diagram for wire-break monitoring



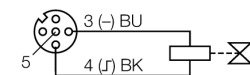
Slot 2: Digital Outputs

Extension cable (example): RK 4T-2-RS 4T ident-no. U2151-3 or
RKC4T-2-RSC4T/TEL ident-no. 6625204

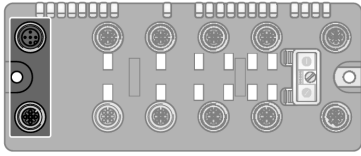
Pin Assignment



Wiring Diagram



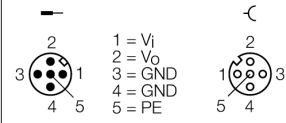
BL compact Fieldbus Station for PROFIBUS-DP 8 Digital PNP Inputs and 4 Digital PNP Outputs BLCDP-8M12LT-8DI-PD-4DO-2A-P



Auxiliary Power

Extension cable (example): RKC 4.4T-2-RSC 4.4T ident-no. U5264 or RKC4.4T-2-RSC4.4T/TEL ident-no. 6625208

Pin Assignment



**BL compact Fieldbus Station for PROFIBUS-DP
8 Digital PNP Inputs and 4 Digital PNP Outputs
BLCDP-8M12LT-8DI-PD-4DO-2A-P**
Status: Station LED

LED	Color	Status	Description
IOs		OFF	Power off
	RED	ON	Insufficient power supply
	RED	FLASHING (1Hz)	Deviating station configuration
	RED	FLASHING (4 Hz)	No module bus communication
	GREEN	ON	Station OK
	GREEN	FLASHING	Force mode active
BUS		OFF	Keine Feldbus Kommunikation
	GREEN	ON	Feldbus Kommunikation aktiv
	GREEN	FLASHING (1 Hz)	No field bus communication active, device status OK
	RED	ON	Bus error at the gateway; no data exchange
	RED	FLASHING	Faulty PROFIBUS-DP address
BUS		OFF	Keine Feldbus Kommunikation
	GREEN	ON	Feldbus Kommunikation aktiv
	GREEN	FLASHING (1 Hz)	Keine Feldbuskommunikation aktiv, Gerätestatus OK
	RED	ON	Busfehler am Gateway; kein Datenaustausch
	RED	FLASHING	Fehlerhafte PROFIBUS-DP Adresse

Status: I/O LED, slot 1

LED	Color	Status	Description
D1 *		OFF	Diagnostic disabled
	RED	ON	Station / module bus communication failure
	RED	FLASHING (0.5Hz)	Summarized diagnostic
DI channels 0...7		OFF	Status channel x = 0 (OFF), diagnostic disabled
	GREEN	ON	Status input x = 1 (ON)
	RED	ON	Wire-break monitoring active (LEDs 0 ... 3)
	RED	FLASHING (2 Hz)	Overload sensor supply

* D1 LED also indicates gateway diagnostic

I/O LED Status Slot 2

LED	Colour	Status	Description
D2 *		OFF	Diagnostic disabled
	RED	ON	Station / module bus communication failure
	RED	FLASHING (0.5Hz)	Summarized diagnostic
DO channels 0...3		OFF	Status of channel x = „0“ (OFF), no diagnostics active
	GREEN	ON	Status of channel x = „1“ (ON)
	RED	ON	Short circuit / overload on channel x

* The D2 LED also indicates gateway diagnosis

BL compact Fieldbus Station for PROFIBUS-DP
8 Digital PNP Inputs and 4 Digital PNP Outputs
BLCDP-8M12LT-8DI-PD-4DO-2A-P**I/O Data Map**

INPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	0	DI 1 ₇	DI 1 ₆	DI 1 ₅	DI 1 ₄	DI 1 ₃	DI 1 ₂	DI 1 ₁	DI 1 ₀
	1	-	-	-	-	-	-	-	-
OUTPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	0	-	-	-	-	DO 2 ₃	DO 2 ₂	DO 2 ₁	DO 2 ₀
	1	-	-	-	-	-	-	-	-