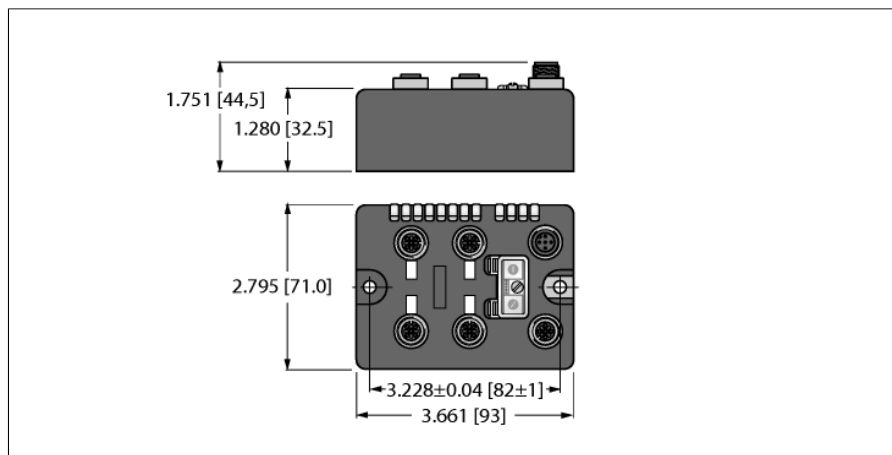


BL compact™ fieldbus station for DeviceNet™

8 Digital PNP Inputs

BLCDN-4M12S-8DI-PD

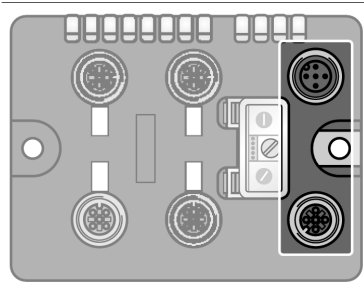
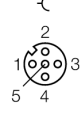
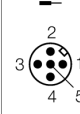
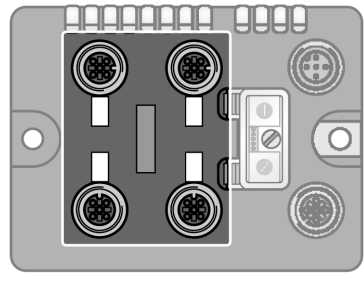
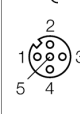
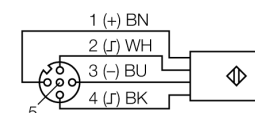
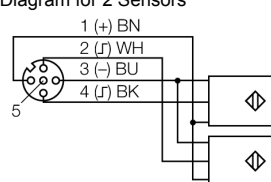
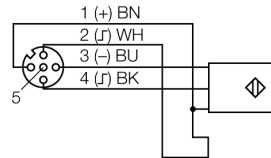


Type	BLCDN-4M12S-8DI-PD
ID	6811005
Nominal system voltage	24 VDC
System power supply	Via DeviceNet
Admissible range V+	11...30 VDC
Nominal current V+	130 mA
Max. current V+	4 A
Fieldbus transmission rate	125/250/500 kbps
Adjustment transmission rate	Automatic detection
Fieldbus address range	0...63 64...80 (MacID programmable) 81...99 (manufacturer specific)
Fieldbus addressing	2 decimally coded rotary switches
Fieldbus connection technology	2 × M12
Fieldbus termination	5-pole external
Service interface	RS232 interface
Vendor ID	48
Product type	12
Product code	11005
Digital inputs	
Input type	PNP
Type of input diagnostics	Channel diagnostics
Sensor supply (V _{SENSE})	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 ms or 2.5 ms (configurable)

- On-machine Compact fieldbus I/O block
- DeviceNet™ slave
- 125 / 250 / 500 kbps
- Two 5-pole M12 connectors for fieldbus connection
- 2 rotary switches for node address
- IP67, IP69K
- M12 I/O connectors
- LEDs indicating status and diagnostics
- Electronics galvanically separated from the field level via optocouplers
- 8 digital PNP inputs, 24 VDC
- Channel diagnostics
- Wire-break monitoring
- Selection of filtering times (Input delay)
- Invertible inputs

Dimensions	93 x 71 x 32.5 mm
Mounting	2 × 5.4 mm diameter holes, 1.7 Nm torque
Weight	320 ± 20 g
Housing material	Glass-filled nylon, nickel plated brass connectors
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 to 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	according to IEC 61131-2
Electromagnetic compatibility	Acc. to IEC 61131-2
Approvals and certificates	CE, cULus

Pinning and wiring diagram

	DeviceNet Fieldbus cable (example): RSC RKC 572-2M ident-no. U0323 or RSC-RKC572-2M ident-no. 6603629	Pin Assignment  1 = shield 2 = V + 3 = V - 4 = CAN_H 5 = CAN_L 1 = shield 2 = V + 3 = V - 4 = CAN_H 5 = CAN_L
	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  1 = V_{SENS} 2 = Input B 3 = GND 4 = Input A 5 = PE Wiring Diagram for Dual Input Sensor  Wiring Diagram for 2 Sensors  Wiring Diagram for Wire-Break Monitoring 

Station LED status

LED	Color	Status	Description
IOs		OFF	No power
	RED	ON	Low power or station error
	RED	FLASHING (1 Hz)	I/O module configuration error
	RED	FLASHING (4 Hz)	No I/O module bus communication
	GREEN	ON	Station ok
	GREEN	FLASHING	Force mode active
MNS		OFF	No connection
	GREEN	ON	Connection established
	GREEN	FLASHING (1 Hz)	No connection established, device OK
	RED	ON	Duplicate MAC-ID
	RED	FLASHING	Connection time out
IO	GREEN	ON	I/O active
	GREEN	FLASHING (1 Hz)	One or more I/O in Idle State
	RED	ON	One or more I/O error
	RED	FLASHING	One or more I/O in Faulted State

I/O LED status

LED	Color	Status	Description
D *		OFF	No diagnostics active
	RED	ON	Station error/ module bus communication failure
	RED	FLASHING (0.5Hz)	Diagnostics active
DI channels 0...7		OFF	Input status x= "0" (OFF), no diagnostics active
	GREEN	ON	Input status x = "1" (ON)
	RED	ON	Wire-break monitoring active (LED 0 to 3)
	RED	FLASHING (2 Hz)	Overload sensor supply

* D LED also indicates gateway diagnostics

I/O & Diagnostic 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	-	-	-	-	-	-	-	-
Diagnostics	2	Module number reporting diagnostic data							
	3	Replace Station	-	Diagnostics Active	-	-	-	-	-
Slot 1 (ref. Byte 2)	4	-	-	-	-	Over Current DI 1 ₃ / DI 1 ₇	Over Current DI 1 ₂ / DI 1 ₆	Over Current DI 1 ₁ / DI 1 ₅	Over Current DI 1 ₀ / DI 1 ₄
	5	-	-	-	-	Open Circuit DI 1 ₃ / DI 1 ₇	Open Circuit DI 1 ₂ / DI 1 ₆	Open Circuit DI 1 ₁ / DI 1 ₅	Open Circuit DI 1 ₀ / DI 1 ₄