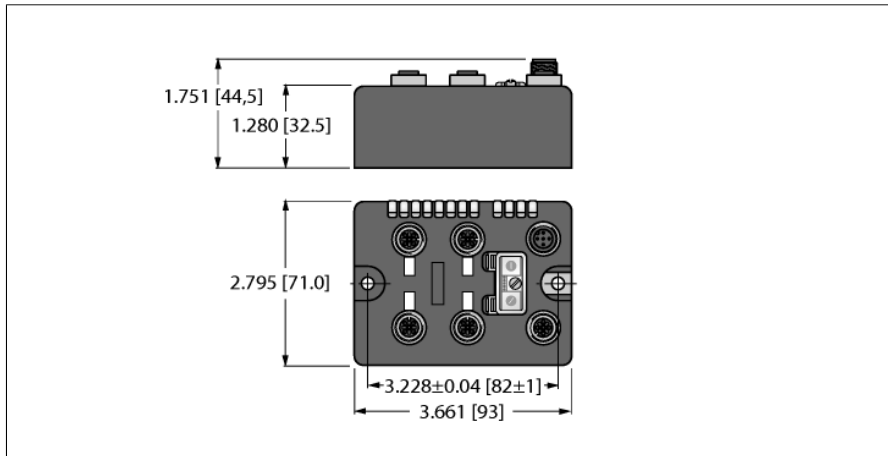


BL compact™ fieldbus station for DeviceNet™
8 Digital PNP Inputs
BLCDN-4M12S-8DI-PD

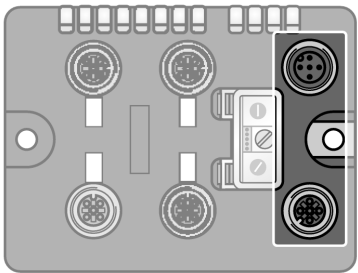


- On-machine Compact fieldbus I/O block
- DeviceNet™ slave
- 125 / 250 / 500 kbps
- Two 5-pole M12 connectors for fieldbus connection
- 2 rotary switches for node address
- IP67, IP69K
- M12 I/O connectors
- LEDs indicating status and diagnostics
- Electronics galvanically separated from the field level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

Type designation	BLCDN-4M12S-8DI-PD
Ident-No.	6811005
Fieldbus transmission rate	125/250/500 kbps
Adjustment transmission rate	Automatic detection
Fieldbus connection technology	2 × M12, 5-pole
Fieldbus address range	0...63
	64...80 (programmable MACID)
	81...99 (manufacturer specific)
Fieldbus addressing	2 decimally coded rotary switches
Service interface	RS232 interface
Vendor ID	48
Product type	12
Product code	11005
Digital inputs	
Input type	PNP
Type of input diagnostics	Channel diagnostics
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	(configurable) 0.25 or 2.5 ms
Vibration test	according to IEC 61131-2
Extended vibration resistance	
- 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	according to IEC 61131-2
Approvals and certificates	CE, cULus
Dimensions (W x L x H)	71 x 93 x 32.5mm
Operating temperature	-40...+70 °C
Storage temperature	-40...+85 °C
Relative humidity	15 to 95% (non-condensing)
Protection class	IP67
	IP69K
Housing material	Glass-filled nylon, nickel plated brass connectors
Housing color	Black
Window material	Lexan
Material screw	Nickel-plated brass
Material label	Polyester with polycarbonate overlay
Ground label material	Nickel plated brass
Weight	320 ± 20 g
Mounting	2 × 5.4 mm diameter holes, 1.7 Nm torque

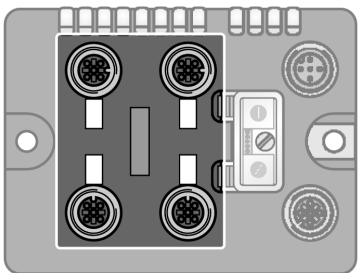
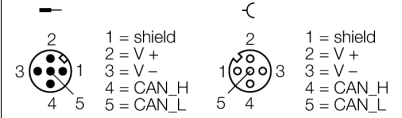
BL compact™ fieldbus station for DeviceNet™
8 Digital PNP Inputs
BLCDN-4M12S-8DI-PD

Pinning and wiring diagram



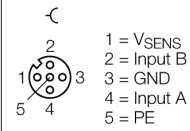
DeviceNet™
Fieldbus cable (example): RSC RKC 572-2M ident-no. U0323 or RSC-RKC572-2M ident-no. 6603629

Pin Assignment

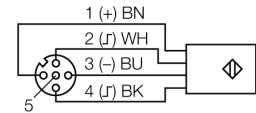


Digital inputs
Extension cable (example): RK 4.4T-2-RS 4.4T ident-no. U2445 or RKC4.4T-2-RSC4.4T/TEL ident-no. 6625208

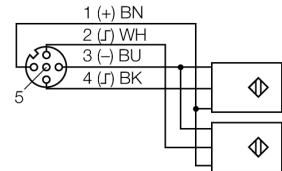
Pin Assignment



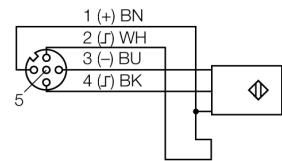
Wiring Diagram for Dual Input Sensor



Wiring Diagram for 2 Sensors



Wiring Diagram for Wire-Break Monitoring



BL compact™ fieldbus station for DeviceNet™
8 Digital PNP Inputs
BLCDN-4M12S-8DI-PD

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

BL compact™ fieldbus station for DeviceNet™
8 Digital PNP Inputs
BLCDN-4M12S-8DI-PD

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