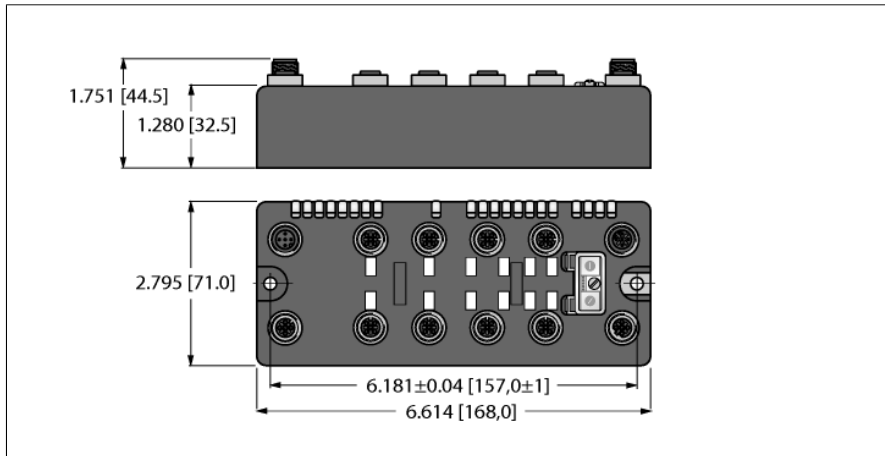


BL compact™ fieldbus station for DeviceNet™

8 Digital NPN Inputs and 8 Digital NPN Outputs

BLCDN-8M12LT-8DI-N-8DO-0.5A-N



- 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 NPN inputs, 24 VDC
- 8 digital NPN outputs, 24 VDC
- Max. 0.5A per output

Type designation BLCDN-8M12LT-8DI-N-8DO-0.5A-N
Ident-No. 6811064

Nominal system voltage 24 VDC
System power supply Via fieldbus and auxiliary power
Voltage supply connection 2 x M12, 4-pin
Admissible range V+ 11...30VDC
Nominal current V+ 30 mA
Max. current V+ 4 A
Admissible range Vi 18...30VDC
Nominal current Vi 1 mA
Max. current Vi 2 A
Admissible range Vo 18...30VDC
Nominal current Vo 100 mA
Max. current Vo 4 A

Fieldbus transmission rate 125/250/500 kbps
Adjustment transmission rate Automatic detection
Fieldbus address range 0...63
 64...80 (programmable MACID)
 81...99 (manufacturer specific)
Fieldbus addressing 2 decimally coded rotary switches
Fieldbus connection technology 2 x M12
 5-pole
Fieldbus termination external
Service interface RS232 interface
Vendor ID 48
Product type 12
Product code 11064

Digital inputs
Input type NPN
Type of input diagnostics Group diagnostics
Sensor supply (V_{SENSE}) 24 VDC
Low level signal voltage 7...30 VDC
High level signal voltage < 5 VDC
Low level signal current < 1.2 mA
High level signal current > 1.5 mA
Input delay 0.25 ms

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Digital outputs

Output type	NPN
Type of output diagnostics	Channel diagnostics
Sensor supply (V_{Sens})	24 VDC
Output current per channel	0.5 A
Output voltage	24 VDC
Output delay	3 ms
Load type	resistive, inductive, lamp load
Load resistance, resistive	> 48 Ω
Load resistance, inductive	< 1.2 H
Lamp load	< 3 W
Switching frequency, resistive	< 200 Hz
Switching frequency, inductive	< 2 Hz
Switching frequency, lamp load	< 20 Hz
Short-circuit protection	yes

Dimensions

Mounting	168 x 71 x 32.5 mm
Weight	2 × 5.4 mm diameter holes, 1.7 Nm torque
Weight	620 ± 20 g
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
Protection class	IP67
	IP69K
Operating temperature	-40...+70 °C
Storage temperature	-40...+85 °C
Relative humidity	15 to 95% (non-condensing)
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

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8 Digital NPN Inputs and 8 Digital NPN Outputs

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Pinning and wiring diagram

	DeviceNet™ Fieldbus cable (example): RSC RKC 572-2M ident-no. U0323 or RSC-RKC572-2M ident-no. 6603629	Pin Assignment
	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 Dual Input Sensor Wiring Diagram for 2 Sensors
	Slot 2: Digital Outputs 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
	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 DeviceNet™
8 Digital NPN Inputs and 8 Digital NPN Outputs
BLCDN-8M12LT-8DI-N-8DO-0.5A-N**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 slot 1

LED	Color	Status	Description
D1 *		OFF	No diagnostics active
	RED	ON	Station error/ module bus communication failure
	RED	FLASHING (0.5Hz)	Diagnostics active (Slot 1)

* D1 LED also indicates gateway diagnostics

I/O LED status slot 2

LED	Color	Status	Description
D2 *		OFF	No diagnostics active
	RED	ON	Station error/ module bus communication failure
	RED	FLASHING (0.5Hz)	Diagnostics active (Slot 2)

* D2 LED also indicates gateway diagnostics

BL compact™ fieldbus station for DeviceNet™
8 Digital NPN Inputs and 8 Digital NPN Outputs
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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 2 (ref. Byte 2)	4	Over Current DO 2 ₇	Over Current DO 2 ₆	Over Current DO 2 ₅	Over Current DO 2 ₄	Over Current DO 2 ₃	Over Current DO 2 ₂	Over Current DO 2 ₁	Over Current DO 2 ₀
	3	-	-	-	-	-	-	-	-
OUTPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	0	DO 2 ₇	DO 2 ₆	DO 2 ₅	DO 2 ₄	DO 2 ₃	DO 2 ₂	DO 2 ₁	DO 2 ₀
	1	-	-	-	-	-	-	-	-