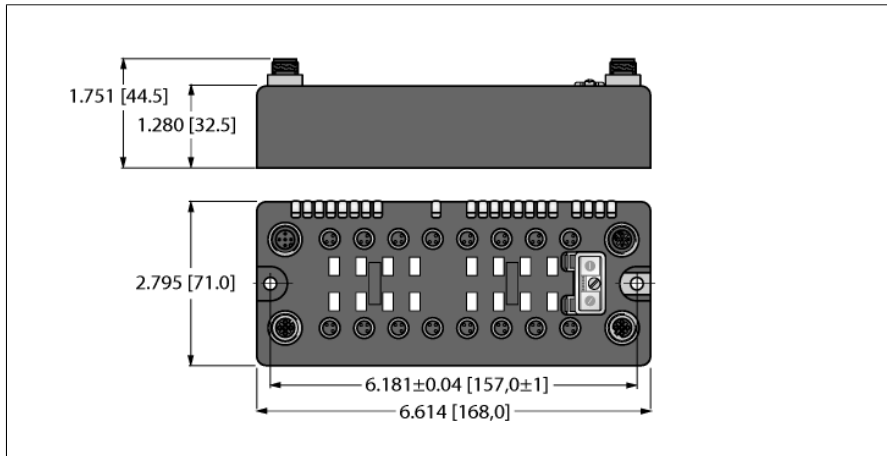


BL compact™ fieldbus station for DeviceNet™

16 Configurable Digital PNP Channels

BLCDN-16M8LT-8XSG-P-8XSG-P



- 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
- M8 I/O connectors
- LEDs indicating status and diagnostics
- Electronics galvanically separated from the field level via optocouplers
- 16 Configurable digital PNP channels, 24 VDC
- Max. 0.5A per channel
- Selection of filtering times (Input delay)
- Invertible inputs

Type designation	BLCDN-16M8LT-8XSG-P-8XSG-P
Ident-No.	6811066
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	200 mA
Max. current Vi	2 A
Admissible range Vo	18...30VDC
Nominal current Vo	200 mA
Max. current Vo	4 A
Electrical isolation	The 8XSG I/O cards have a common reference potential for operating and load voltage due to their freely selectable digital channels. Subsequently, all voltage sources (VI / VO / V+) present on this device must be concurrently connected to suitable power supplies.
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	11066
Digital inputs	
Input type	PNP
Type of input diagnostics	Group diagnostics
Sensor supply (V _{SENS})	24 VDC
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

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16 Configurable Digital PNP Channels
BLCDN-16M8LT-8XSG-P-8XSG-P

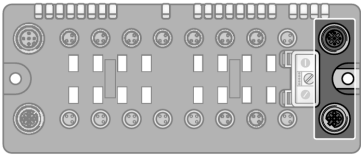
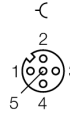
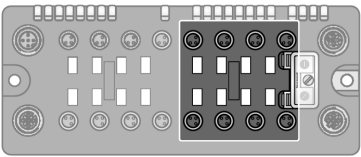
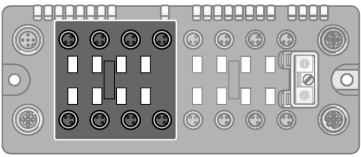
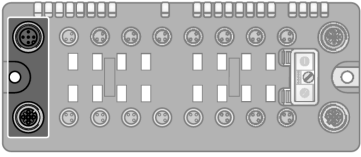
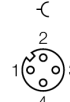
Digital outputs

Output type	PNP
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
Housing material	590 ± 20 g
Housing color	Glass-filled nylon, nickel plated brass connectors
Window material	Black
Material screw	Lexan
Material label	Nickel-plated brass
Ground label material	Polyester with polycarbonate overlay
Protection class	Nickel plated brass
Operating temperature	IP67
Storage temperature	-40...+70 °C
Relative humidity	-40...+85 °C
Vibration test	15 to 95% (non-condensing)
Extended vibration resistance	according to IEC 61131-2
- up to 20 g (at 10 up to 150 Hz)	
Shock test	For mounting on base plate or machinery
Electromagnetic compatibility	according 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
	Slot 1: Digital Inputs and Outputs Extension cable (example): PKG 3M-2-PSG 3M ident-no. U2515-20 or PKG3M-2-PSG3M/TEL ident-no. 6625303	Pin Assignment  1 = V_{SENS} 3 = GND 4 = Signal A
	Slot 2: Digital Inputs and Outputs	Pin Assignment  1 = V_{SENS} 3 = GND 4 = Signal A
	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  1 = V_i 2 = V_o 3 = GND 4 = GND  1 = V_i 2 = V_o 3 = GND 4 = GND

BL compact™ fieldbus station for DeviceNet™
16 Configurable Digital PNP Channels
BLCDN-16M8LT-8XSG-P-8XSG-P**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)
XSG channels 1 ₀ ...1 ₇		OFF	Channel status x = "0" (OFF), no diagnostics active
	GREEN	ON	Channel status x = "1" (ON)
	RED	ON	Short-circuit at output

* 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)
XSG channels 2 ₀ ...2 ₇		OFF	Channel status x = "0" (OFF), no diagnostics active
	GREEN	ON	Channel status x = "1" (ON)
	RED	ON	Short-circuit at output

* D2 LED also indicates gateway diagnostics

BL compact™ fieldbus station for DeviceNet™
16 Configurable Digital PNP Channels
BLCDN-16M8LT-8XSG-P-8XSG-P**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	DI 2 ₇	DI 2 ₆	DI 2 ₅	DI 2 ₄	DI 2 ₃	DI 2 ₂	DI 2 ₁	DI 2 ₀
	2	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-
OUTPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	0	DO 1 ₇	DO 1 ₆	DO 1 ₅	DO 1 ₄	DO 1 ₃	DO 1 ₂	DO 1 ₁	DO 1 ₀
	1	DO 2 ₇	DO 2 ₆	DO 2 ₅	DO 2 ₄	DO 2 ₃	DO 2 ₂	DO 2 ₁	DO 2 ₀