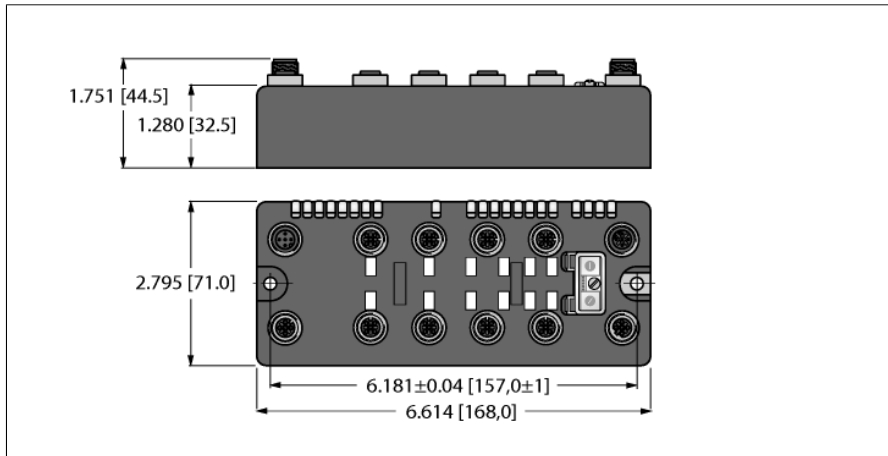


BL compact™ fieldbus station for DeviceNet™
4 Analog Outputs for Voltage and 8 Configurable Digital PNP Channels
BLCDN-8M12LT-4AO-V-8XSG-P



- 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, IP69K
- M12 I/O connectors
- LEDs indicating status and diagnostics
- Electronics galvanically separated from the field level via optocouplers
- 8 Configurable digital PNP channels, 24 VDC
- Max. 0.5A per channel
- Selection of filtering times (Input delay)
- Invertible inputs
- 4 analog voltage outputs
- -10/0...+10 VDC

Type designation	BLCDN-8M12LT-4AO-V-8XSG-P
Ident-No.	6811013
Electrical isolation	The inputs and outputs of the 8XSG I/O cards are supplied via a common ground. Therefore, it is recommend not to use this module for safety or emergency stop applications.
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	11013
Analog outputs	from 4AO-V
Operating modes	-10/0 ... 10 V
Resolution	16 bit
Repeat accuracy	< 0.05 %
Temperature coefficient	< 300 ppm/°C of full scale
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 168 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	620 ± 20 g
Mounting	2 × 5.4 mm diameter holes, 1.7 Nm torque

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Pinning and wiring diagram

	<p>DeviceNet™ Fieldbus cable (example): RSC RKC 572-2M ident-no. U0323 or RSC-RKC572-2M ident-no. 6603629</p>	<p>Pin Assignment</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>1 = shield 2 = V + 3 = V - 4 = CAN_H 5 = CAN_L</p> </div> <div style="text-align: center;"> <p>1 = shield 2 = V + 3 = V - 4 = CAN_H 5 = CAN_L</p> </div> </div>
	<p>Slot 1: Analog Outputs Extension cable (example): RK 4.5T-2-RS 4.5T/S653 ident-no. U2187-09 or RKC4.5T-2-RSC4.5T/TEL ident-no. 6625212</p>	<p>Pin Assignment</p> <div style="text-align: center;"> <p>1 = V_{SENS} 2 = AO + 3 = GND 4 = AO - 5 = PE</p> </div>
	<p>Slot 2: Digital Inputs and Outputs Extension cable (example): RK 4.4T-2-RS 4.4T ident-no. U2445 or RKC4.4T-2-RSC4.4T/TEL ident-no. 6625208</p>	<p>Pin Assignment</p> <div style="text-align: center;"> <p>1 = V_{SENS} 2 = Signal B 3 = GND 4 = Signal A 5 = PE</p> </div>
	<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</p>	<p>Pin Assignment</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>1 = V_i 2 = V_o 3 = GND 4 = GND</p> </div> <div style="text-align: center;"> <p>1 = V_i 2 = V_o 3 = GND 4 = GND</p> </div> </div>

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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)
AO channels 0...3			Not connected (The analog outputs do not have a LED)

* 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

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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 2 ₇	DI 2 ₆	DI 2 ₅	DI 2 ₄	DI 2 ₃	DI 2 ₂	DI 2 ₁	DI 2 ₀
	1	-	-	-	-	-	-	-	-
Diagnostics	2	Module number reporting diagnostic data							
	3	Replace Station	-	Diagnostics Active	-	-	-	-	-
Slot 1 (ref. Byte 2)	4	Hardware Failure	-	-	-	AO 1 ₀ Overflow/Underflow	-	-	Range Error AO 1 ₀
	5	Hardware Failure	-	-	-	AO 1 ₁ Overflow/Underflow	-	-	Range Error AO 1 ₁
	6	Hardware Failure	-	-	-	AO 1 ₂ Overflow/Underflow	-	-	Range Error AO 1 ₂
	7	Hardware Failure	-	-	-	AO 1 ₃ Overflow/Underflow	-	-	Range Error AO 1 ₃
OUTPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
AO 1 ₀	0	AO 1 ₀ LSB							
	1	AO 1 ₀ MSB							
AO 1 ₁	2	AO 1 ₁ LSB							
	3	AO 1 ₁ MSB							
AO 1 ₂	4	AO 1 ₂ LSB							
	5	AO 1 ₂ MSB							
AO 1 ₃	6	AO 1 ₃ LSB							
	7	AO 1 ₃ MSB							
	8	DO 2 ₇	DO 2 ₆	DO 2 ₅	DO 2 ₄	DO 2 ₃	DO 2 ₂	DO 2 ₁	DO 2 ₀
	9	-	-	-	-	-	-	-	-