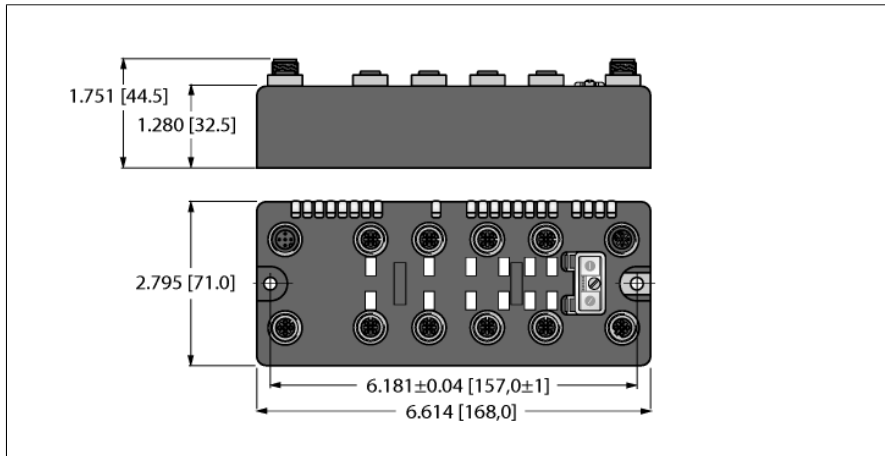


BL compact™ fieldbus station for CANopen
16 Configurable Digital PNP Channels
BLCCO-8M12LT-8XSG-P-8XSG-P


- On-machine Compact fieldbus I/O block
- CANopen slave
- 10, 20, 50, 125, 250, 500, 800, or 1000 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
- 16 Configurable digital PNP channels, 24 VDC
- Max. 0.5A per channel
- Selection of filtering times (Input delay)
- Invertible inputs

Type designation	BLCCO-8M12LT-8XSG-P-8XSG-P
Ident-No.	6811316
Nominal system voltage	24 VDC
System power supply	Via fieldbus and auxiliary power
Voltage supply connection	2 x M12, 4-pin
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	10 kbps ... 1 Mbps
Adjustment transmission rate	Automatic detection
Fieldbus address range	1...99
Fieldbus addressing	2 decimally coded rotary switches
Fieldbus connection technology	2 x M12
Fieldbus termination	5-pole
Service interface	external RS232 interface
Digital inputs	
Input type	PNP
Type of input diagnostics	Group diagnostics
Sensor supply (V _{SENSE})	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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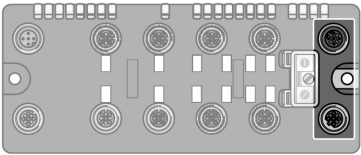
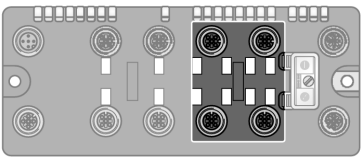
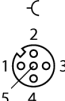
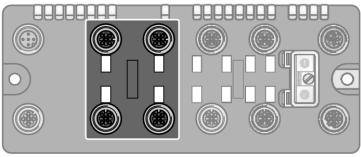
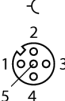
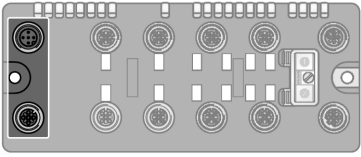
Digital outputs

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
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

Pinning and wiring diagram

	CANopen 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): RK 4.4T-2-RS 4.4T ident-no. U2445 or RKC4.4T-2-RSC4.4T/TEL ident-no. 6625208	Pin Assignment  1 = VSENS 2 = Signal B 3 = GND 4 = Signal A 5 = PE
	Slot 2: Digital Inputs and Outputs See slot 1	Pin Assignment  1 = VSENS 2 = Signal B 3 = GND 4 = Signal A 5 = PE
	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 = Vi 2 = Vo 3 = GND 4 = GND  1 = shield 2 = V + 3 = V - 4 = CAN_H 5 = CAN_L

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
ERR	-	OFF	No communication error
	RED	ON	CAN bus communication error
BUS	GREEN	ON	NMT-slave state is „Operational“
	ORANGE	ON	NMT-slave state is „Pre-Operational“
	RED	ON	NMT-slave state is „Stopped“
ERR & BUS	RED (ERR) & GREEN (BUS)	FLASHING (4 Hz)	Searching for the baud rate

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

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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
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