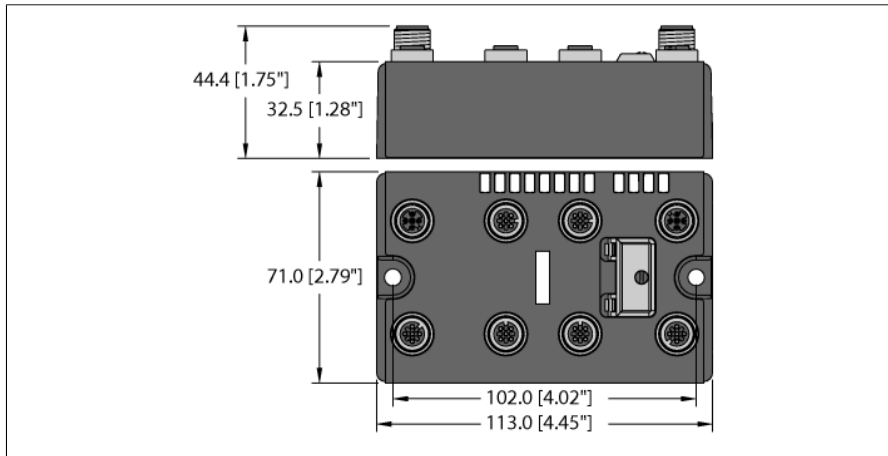


BL compact™ Fieldbus Station for EtherCAT™
8 Digital NPN Inputs
BLCEC-4M12MT-8DI-N

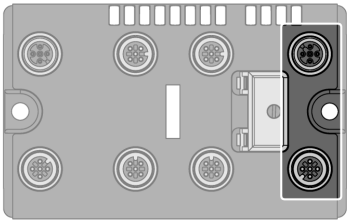
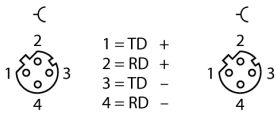
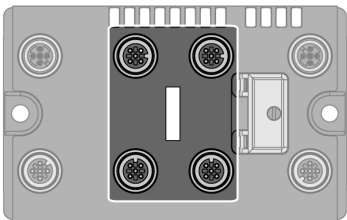
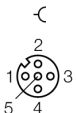
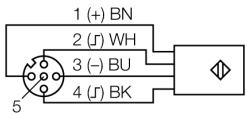
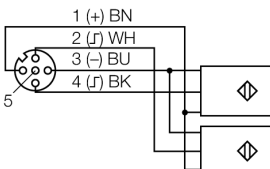
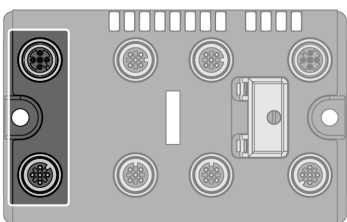
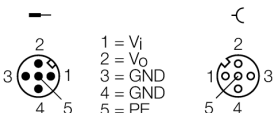


- On-machine Compact fieldbus I/O block
- EtherCAT™ slave
- Integrated Ethernet Switch
- Two 4-pole M12, D-coded, connectors for fieldbus connection
- Auto and Fixed addressing
- IP67, IP69K
- M12 I/O connectors
- LEDs indicating status and diagnostics
- Electronics galvanically separated from the field level via optocouplers
- 8 digital NPN inputs, 24 VDC

Type designation	BLCEC-4M12MT-8DI-N
Ident-No.	6811631
Fieldbus transmission rate	100 Mbps
Fieldbus connection technology	2 × M12, 4-pole, D-coded
Fieldbus address range	0x00 (automatic assignment) 0x01...0xFF (fixed assignment)
Fieldbus addressing	2 hexadecimally coded rotary switches
Service interface	Ethernet
EtherCAT®	
Digital inputs	
Input type	NPN
Type of input diagnostics	Group diagnostics
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
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 113 x 32.5mm
Operating temperature	-40...+70 °C
Storage temperature	-40...+85 °C
Relative humidity	15 to 95% (non-condensing)
Protection class	IP67 IP69K
MTTF	110 years acc. to SN 29500 (Ed. 99) 20 °C
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	390 ± 20 g
Mounting	2 × 5.4 mm diameter holes, 1.7 Nm torque

BL compact™ Fieldbus Station for EtherCAT™
8 Digital NPN Inputs
BLCEC-4M12MT-8DI-N

Pinning and wiring diagram

	<p>EtherCAT® Fieldbus cable (IP67 example): RSSD RSSD 441-2M ID number U-02482 or RSSD-RSSD-441-2M/S2174 ID number 6914218</p>	<p>Pin Assignment (M12, D-code)</p>  <p>1 = TD + 2 = RD + 3 = TD - 4 = RD -</p>
	<p>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</p>	<p>Pin Assignment</p>  <p>1 = V_{SENS} 2 = Input B 3 = GND 4 = Input A 5 = PE</p> <p>Wiring Diagram for Dual Input Sensor</p>  <p>Wiring Diagram for 2 Sensors</p> 
	<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>  <p>1 = V_I 2 = V_O 3 = GND 4 = GND 5 = PE</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
LNK/ACT		OFF	Port Closed, No Link, No Activity
	GREEN	ON	Port Open, Link Established, No Activity
	GREEN	FLICKERING	Port Open, Link Established, Activity Present
RUN		OFF	Device is in state INIT
	GREEN	BLINKING	Device is in state PRE-OPERATIONAL
	GREEN	SINGLE FLASH	Device is in state SAFE-OPERATIONAL
	GREEN	ON	Device is in state OPERATIONAL
	GREEN	FLICKERING	Device is in state BOOTSTRAP
ERR	RED	ON	Application controller not responding
	RED	DOUBLE FLASH	Sync Manager Watchdog timeout
	RED	SINGLE FLASH	State changes from Op to SafeOpError (synchronization error)
	RED	BLINKING	State change not possible (invalid register/object settings/hardware config.)
	RED	OFF	No EtherCAT comm errors

BL compact™ Fieldbus Station for EtherCAT™
8 Digital NPN Inputs
BLCEC-4M12MT-8DI-N**I/O 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	-	-	-	-	-	-	-	-