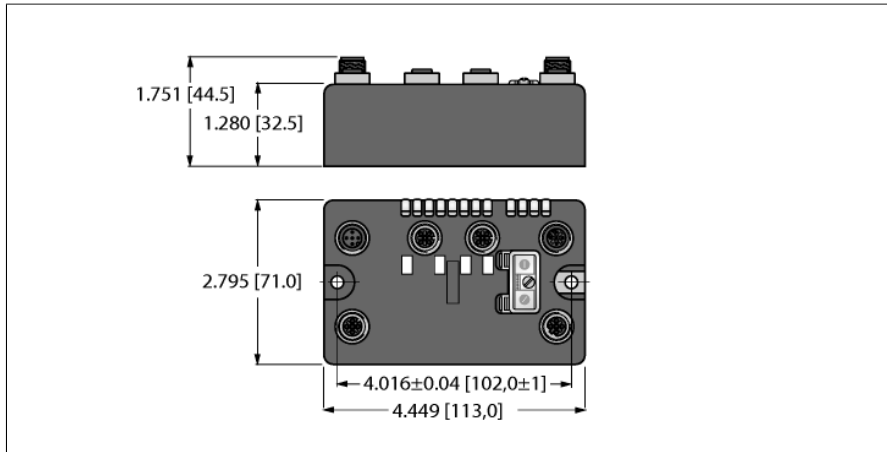


BL Compact Fieldbus Station for EtherCAT Interface for Connection of 2 BL ident Read/Write Heads (HF/ UHF) BLCEC-2M12MT-2RFID-S

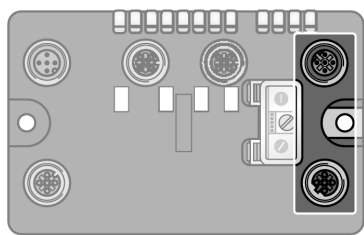
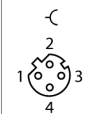
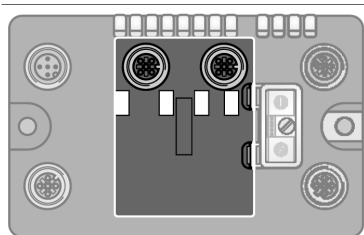
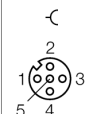
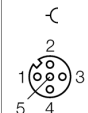
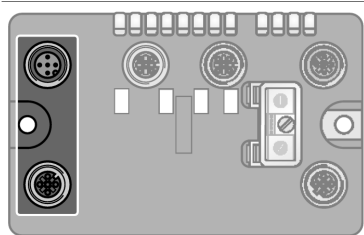
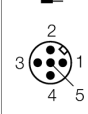
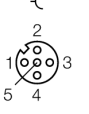


Type	BLCEC-2M12MT-2RFID-S
ID	6811630
Nominal system voltage	24 VDC
System power supply	Via auxiliary power
Voltage supply connection	2 x M12, 5-pin
Admissible range Vi	18...30 VDC
Nominal current Vi	125 mA
Max. current Vi	1 A
Admissible range Vo	18...30 VDC
Max. current Vo	4 A
Fieldbus transmission rate	100 Mbps
Fieldbus address range	0 x 00 (automatic assignment) 0 x 01...0 x FF (fixed assignment)
Fieldbus addressing	2 hexadecimally coded rotary switches
Fieldbus connection technology	2 x M12 4-pole, D-coded
Service interface	Ethernet
Technology	
Signal type	Simple RFID interface
Number of channels	2
Sensor supply	0.5 A per channel, short-circuit proof
Simultaneity factor	1
Transmission rate	115.2 kbps
Cable length	50 m
Electrical isolation	isolation of electronics and field level via optocouplers

- 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
- Simple RFID interface
- Connection of 2 BL ident® read/write heads
- Max cable length of 50 m

Dimensions	113 x 71 x 32.5 mm
Mounting	2 × 5.4 mm diameter holes, 1.7 Nm torque
Weight	360 ± 20 g
Housing material	Glass-filled nylon, nickel plated brass connectors
Housing color	Black
Material screw	Nickel-plated brass
Material label	Polyester with polycarbonate overlay
Ground label material	Nickel plated brass
Protection class	IP67 IP69K
Ambient temperature	-40...+70 °C
Storage temperature	-40...+85 °C
Relative humidity	15 to 95% (non-condensing)
Vibration test	Acc. to IEC 61131-2
- 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	Acc. to IEC 61131-2
MTTF	110 years
MTTF note	acc. to SN 29500 (Ed. 99) 20 °C
Approvals and certificates	CE, cULus

Pinning and wiring diagram

	EtherCAT Fieldbus cable (IP67 example): RSSD RSSD 441-2M ID number U-02482 or RSSD-RSSD-441-2M/S2174 ID number 6914218	Pin assignment (M12, D-coded)  1 = TD + 2 = RD + 3 = TD - 4 = RD -  1 = TD + 2 = RD + 3 = TD - 4 = RD -
	RFID Channels Extension cable (example): RK 4.5T-2-RS 4.5T/S2501 ident-no. U3-01243 or RK4.5T-2-RS4.5T/S2500 ident-no. 6699200	.../S2500 Connectors  1 = BN (+) 2 = BK (Data) 3 = BU (GND) 4 = WH (Data) 5 = shield .../S2501 Connectors  1 = BN (+) 2 = WH (Data) 3 = BU (GND) 4 = BK (Data) 5 = shield
	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 = V₀ 3 = GND 4 = GND 5 = PE  1 = V_i 2 = V₀ 3 = GND 4 = GND 5 = PE

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

I/O LED status

LED	Color	Status	Description
D *		OFF	No diagnostics active
	RED	ON	Station error/ module bus communication failure
	RED	FLASHING (0.5Hz)	Diagnostics active
RW0 / RW1		OFF	No tag present, no diagnostics active
	GREEN	ON	Tag present
	GREEN	FLASHING (2 Hz)	Data communication from / to tag active
	RED	ON	Error in the R/W head
	RED	FLASHING (2 Hz)	Short circuit in the transceiver supply

* D LED also indicates gateway diagnostics

I/O Data Map

INPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
RFID 1 ₀	0	Done	Busy	Error	Trans. Conn.	Trans. On	TP	TFR	-
	1	Error Cat. (Category Code)							
	2	Error Desc. (Description Code)							
	3	-	-	-	-	-	-	-	-
	4...11	Read Data (8 Byte)							
RFID 1 ₁	12	Done	Busy	Error	Trans. Conn.	Trans. On	TP	TFR	-
	13	Error Cat. (Category Code)							
	14	Error Desc. (Description Code)							
	15	-	-	-	-	-	-	-	-
	16...23	Read Data (8 Byte)							
OUTPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
RFID 1 ₀	0	Transceiver	Next	Tag ID	Read	Write	Tag Info.	Trans. Info.	Reset
	1	-	-	-	-	-	Byte Count 2	Byte Count 1	Byte Count 0
	2	Address High Byte (MSB)							
	3	Address Low Byte (LSB)							
	4...11	Write Data (8 Byte)							
RFID 1 ₁	12	Transceiver	Next	Tag ID	Read	Write	Tag Info.	Trans. Info.	Reset
	13	-	-	-	-	-	Byte Count 2	Byte Count 1	Byte Count 0
	14	Address High Byte (MSB)							
	15	Address Low Byte (LSB)							
	16...23	Write Data (8 Byte)							