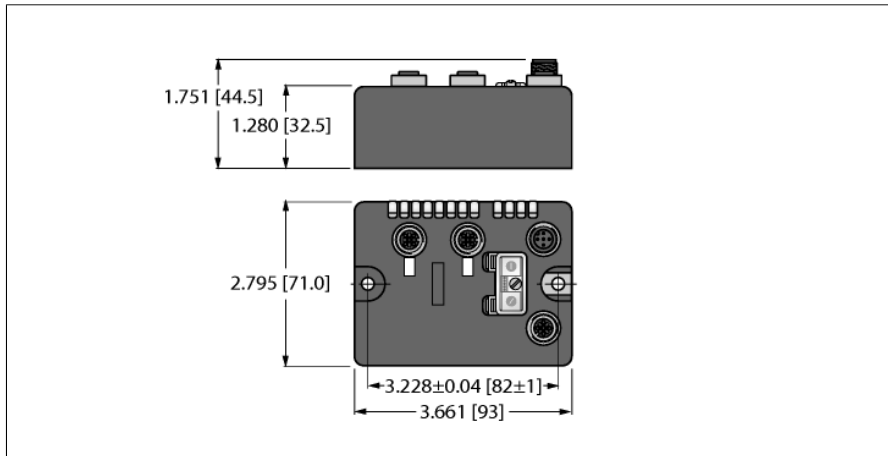


BL compact™ fieldbus station for DeviceNet™
2 Analog Inputs for Thermocouple Elements
BLCDN-2M12S-2AI-TC

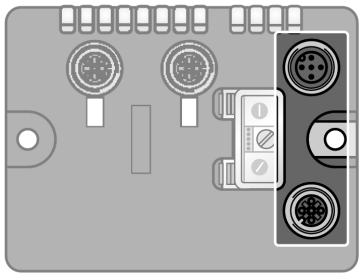


- On-machine Compact fieldbus I/O block
- DeviceNet™ slave
- 125 / 250 / 500 kbps
- Two 5-pole M12 connectors for fieldbus connection
- 2 rotary switches for node address
- IP67, IP69K
- M12 I/O connectors
- LEDs indicating status and diagnostics
- Electronics galvanically separated from the field level via optocouplers
- 2 analog inputs for Thermo Couples
- Types B, E, J, K, N, R, S or T (selectable per channel)
- Cold-junction compensation via a Pt1000 in special connector

Type designation	BLCDN-2M12S-2AI-TC
Ident-No.	6811040
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	11040
Analog inputs	from 2AI-TC
Operating modes	Types B, E, J, K, N, R, S, T
Resolution	16 bit
Repeatability	< 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 93 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	290 ± 20 g
Mounting	2 × 5.4 mm diameter holes, 1.7 Nm torque

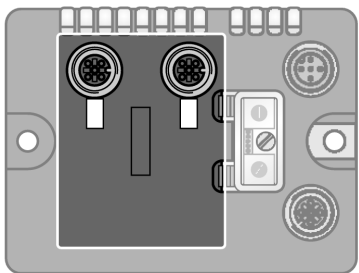
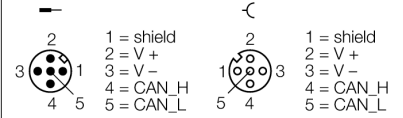
BL compact™ fieldbus station for DeviceNet™
2 Analag Inputs for Thermocouple Elements
BLCDN-2M12S-2AI-TC

Pinning and wiring diagram



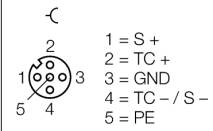
DeviceNet™
Fieldbus cable (example): RSC RKC 572-2M ident-no. U0323 or
RSC-RKC572-2M ident-no. 6603629

Pin Assignment

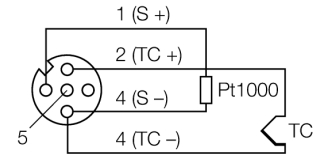


Thermocouple Inputs
TC compensating connector BL67-WAS5-THERMO ident-no.
6827197

Pin Assignment



Wiring Diagram



BL compact™ fieldbus station for DeviceNet™
2 Analog Inputs for Thermocouple Elements
BLCDN-2M12S-2AI-TC

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

LED	Color	Status	Description
D *		OFF	No diagnostics active
	RED	ON	Station error/ module bus communication failure
	RED	FLASHING (0.5Hz)	Diagnostics active
AI channel 0 / 1			Not connected

* D LED also indicates gateway diagnostics

BL compact™ fieldbus station for DeviceNet™
2 Analog Inputs for Thermocouple Elements
BLCDN-2M12S-2AI-TC

I/O & Diagnostic Data Map

INPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
AI 1 ₀	0	AI 1 ₀ LSB							
	1	AI 1 ₀ MSB							
AI 1 ₁	2	AI 1 ₁ LSB							
	3	AI 1 ₁ MSB							
Diagnostics	4	Module number reporting diagnostic data							
	5	Replace Station	-	Diagnostics Active	-	-	-	-	-
Slot 1 (ref. Byte 4)	6	-	-	-	-	-	-	Open Circuit AI 1 ₀	Range Error AI 1 ₀
	7	-	-	-	-	-	-	Open Circuit AI 1 ₁	Range Error AI 1 ₁