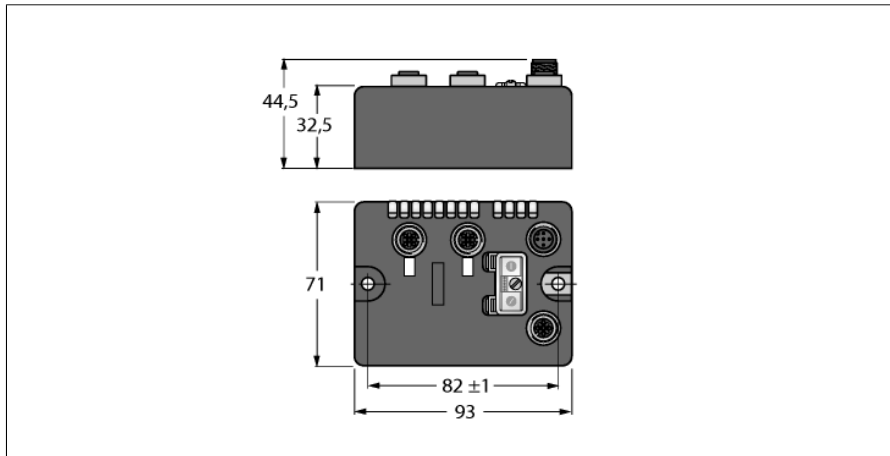


BL Compact Fieldbus Station for DeviceNet
2 Analog Thermocouple Inputs
BLCDN-2M12S-2AI-TC



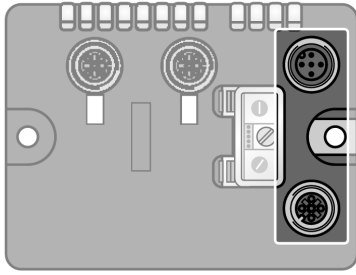
- On-Machine™ compact fieldbus I/O blocks
- DeviceNet™ slave
- 125/250/500 kbps
- Two 5-pin M12 male receptacles for fieldbus connection
- 2 rotary coding switches for node-address
- IP 69K
- M12 I/O ports
- LEDs indicating status and diagnostics
- Electronics galvanically isolated from the field level via optocouplers
- 2 analog inputs for thermocouples
- Types B, E, J, K, N, R, S or T (selectable per channel)
- Cold junction compensation via Pt1000 probe in a special connector

Type designation	BLCDN-2M12S-2AI-TC
Ident no.	6811040
Nominal system voltage	24 VDC
System power supply	Via DeviceNet
Admissible range V+	11...30 VDC
Nominal current V+	60 mA
Max. current V+	4 A
Fieldbus transmission rate	125/250/500 kbps
Adjustment transmission rate	Automatic detection
Fieldbus address range	0...63
	64...80 (programmable MACID)
	81...99 (manufacturer specific)
Fieldbus addressing	2 dec. Rotary coding switches
Fieldbus connection technology	2 × M12
	5-pin
Fieldbus termination	External
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
Type of input diagnostics	Channel diagnostics
Sensor supply	24 VDC, max. 1 A
Voltage resolution	± 50 mV: < 2 µV
	± 100 mV: < 4 µV
	± 500 mV: < 20 µV
	± 1000 mV: < 50 µV
Basic fault limit at 23 °C	< 0.2 %
Repeatability	< 0.05 %
Temperature coefficient	< 300 ppm/°C of full scale
Resolution	16 Bit
Measurement display	16 bit signed integer
	12 bit full range left-justified

BL Compact Fieldbus Station for DeviceNet
2 Analog Thermocouple Inputs
BLCDN-2M12S-2AI-TC

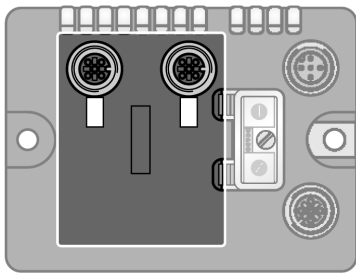
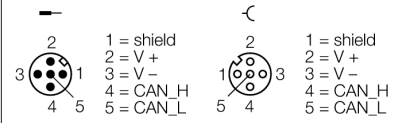
Dimensions	93 x 71 x 32.5 mm
Mounting	2 × 5.4 mm diameter holes, 1.7 Nm torque
Weight	290 ± 20 g
Housing material	Glass fiber reinforced nylon, nickel-plated connector
Housing color	Black
Material screw	Nickel-plated brass
Material label	Polyester with polycarbonate overlay
Ground label material	Nickel-plated brass
Protection class	IP67 IP69K
Ambient temperature	-40...+70 °C
Storage temperature	-40...+85 °C
Relative humidity	15...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	acc. to IEC 61131-2
Electromagnetic compatibility	Acc. to IEC 61131-2
Approvals and certificates	CE, cULus

BL Compact Fieldbus Station for DeviceNet
2 Analog Thermocouple Inputs
BLCDN-2M12S-2AI-TC



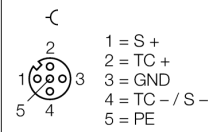
DeviceNet
Fieldbus cable (example): RSC RKC 572-2M ident-no. U0323 or
RSC-RKC572-2M ident-no. 6603629

Pin Assignment

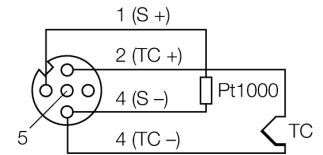


Thermocouple Inputs
TC compensating connector BL67-WAS5-THERMO ident-no.
6827197

Pin Assignment



Wiring Diagram



BL Compact Fieldbus Station for DeviceNet
2 Analog Thermocouple Inputs
BLCDN-2M12S-2AI-TC**Status: Station LED**

LED	Color	Status	Description
IOs		OFF	Power off
	RED	ON	Insufficient power supply
	RED	FLASHING (1Hz)	Deviating station configuration
	RED	FLASHING (4 Hz)	No module bus communication
	GREEN	ON	Station OK
	GREEN	FLASHING	Force mode active
MNS		OFF	No connection
	GREEN	ON	Fieldbus communication active
	GREEN	FLASHING (1Hz)	Fieldbus communication disabled, device status OK
	RED	ON	Double MAC-ID
	RED	FLASHING	Fieldbus communication timeout
IO	GREEN	ON	I/O slots OK
	GREEN	FLASHING (1Hz)	At least one I/O slot in idle state
	RED	ON	At least one faulty I/O slot
	RED	FLASHING	At least one I/O slot in faulty state

Status: I/O LED

LED	Color	Status	Description
D *		OFF	Diagnostic disabled
	RED	ON	Station / module bus communication failure
	RED	FLASHING (0.5Hz)	Summarized diagnostic
AI channels 0 / 1			Without function

* D LED also indicates gateway diagnostic

BL Compact Fieldbus Station for DeviceNet
2 Analog Thermocouple Inputs
BLCDN-2M12S-2AI-TC

Mapping of I/O and Diagnostic Data

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							
Diagnose	4	Modulnummer meldet Diagnose Daten							
	5	Austauschstation	-	Diagnose aktiv	-	-	-	-	-
Steckplatz 1 (ref. Byte 4)	6	-	-	-	-	-	-	Offener Stromkreis AI 1 ₀	Bereichsfehler AI 1 ₀
	7	-	-	-	-	-	-	Offener Stromkreis AI 1 ₁	Bereichsfehler AI 1 ₁