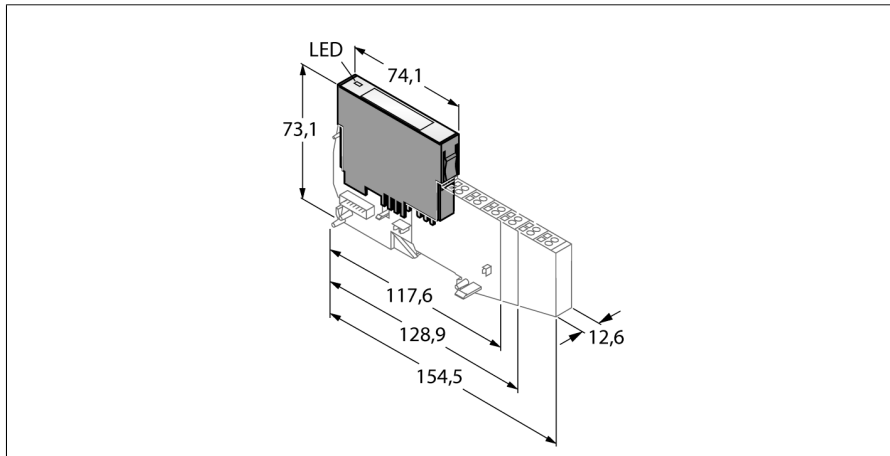


BL20 electronic module

2 Analog Thermocouple Inputs

BL20-2AI-THERMO-PI



- Fieldbus and connection technology independent
- Protection class IP20
- LEDs indicate status and diagnostic
- Electronics galvanically separated from the field level via optocouplers
- 2 analog inputs for connection of thermocouples, types B, E, J, K, N, R, S and T
- Base module with internal cold compensation

Functional principle

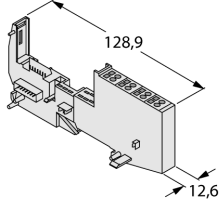
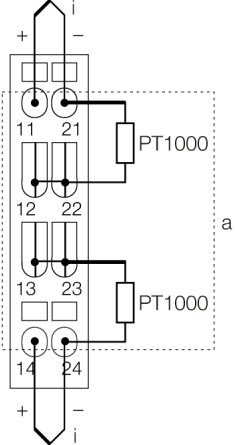
BL20 electronic modules are plugged into the purely passive base modules which are used for connection of field devices. Maintenance is significantly facilitated due to separation of the connection level from the module electronics. Furthermore flexibility is enhanced because the base modules provide a choice of tension spring or screw connection technology.

The electronic modules are completely independent of the type of higher level field bus through the use of gateways.

Type	BL20-2AI-THERMO-PI
ID	6827020
Number of channels	2
Rated voltage from the supply terminal	24 VDC
Nominal current from field supply	≤ 30 mA
Nominal current from module bus	≤ 45 mA
Power dissipation, typical	≤ 1 W
Inputs	
Input type	Types B, E, J, K, N, R, S, T
Electrical isolation	electronics for the field level
Output connectivity	Screw, tension spring
Voltage resolution	± 50 mV: < 2 µV ± 100 mV: < 4 µV ± 500 mV: < 20 µV ± 1000 mV: < 50 µV
Maximum limiting frequency analog	2 Hz
Linearity	≤ 0.1 %
Basic fault limit at 23 °C	< 0.2 %
Repeatability	0.05 %
Temperature coefficient	< 300 ppm/°C of full scale
Resolution	16 Bit
Measured-value display	16 bit signed integer 12 bit full range left-justified
Cycle time	≤ 300 ms
Number of diagnostics bytes	2
Number of parameter bytes	2
Dimensions (W x L x H)	12.6 x 74.1 x 55.4 mm
Approvals	CE, cULus, zone 2, Class I, Div. 2
Ambient temperature	0...+55 °C
Storage temperature	-25...+85 °C
Relative humidity	15...95 %, no condensation allowed
Vibration test	Acc. to EN 61131
Shock test	Acc. to IEC 60068-2-27
Drop and topple	acc. to IEC 68-2-31 and free fall to IEC 68-2-32
Electromagnetic compatibility	Acc. to EN 50082-2
Protection class	IP20
MTTF	422 years acc. to SN 29500 (Ed. 99) 20 °C

BL20 electronic module
2 Analog Thermocouple Inputs
BL20-2AI-THERMO-PI

Compatible base modules

Dimension drawing	Type	Pin configuration
	<p>BL20-S4T-SBBS-CJ 6827048 Tension spring connection, a: Internal cold junction compensation in the base module</p> <p>BL20-S4S-SBBS-CJ 6827049 Screw connection, a: Internal cold junction compensation in the base module</p>	<p>Wiring Diagram</p> 

BL20 electronic module
2 Analog Thermocouple Inputs
BL20-2AI-THERMO-PI

Accessories

Type code	Ident-No.		Dimension drawing
ZBW5-2BETÄTIGUNGSWERKZEUG	6827106	Tension spring tool	