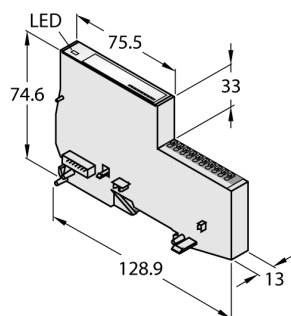


BL20 Economy Module

Counter

BL20-E-1CNT



- Fieldbus-independent
- Electronics and connection technology in one housing
- Connectivity: Push-in terminals
- Protection class IP20
- LEDs indicate status and diagnostic
- Electronics galvanically separated from the field level via optocouplers
- Detection of normalized counting signals
- 1 digital input, 24 VDC
- 1 digital output, 24 VDC, 1 A
- Counting mode: Continuous, single or periodic count
- Measuring mode: Frequency, rotation speed or period duration measurement

Type	BL20-E-1CNT
ID	100037880

Rated voltage from the supply terminal	24 VDC
Nominal current from field supply	≤ 35 mA
Nominal current from module bus	≤ 18 mA
Power dissipation, typical	≤ 1.3 W

Electrical isolation	Electronics and field level isolated via optocouplers
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Number of channels	1
Input voltage	24 VDC
Input type	PNP
Low-level signal voltage	-3 to 8.6 VDC
High level signal voltage	11 VDC to 30 VDC
Low level signal current	-8 mA to 1.5 mA
High level signal current	2 mA to 10 mA
Minimum pulse width (maximum count frequency)	
Filter on	> 25 µs (20 kHz)
Filter off	< 2.5 µs (200 kHz)
Output connectivity	Push-in

Outputs	
Number of channels	1
Output type	PNP
Output voltage	24 VDC
Output current per channel	1 A
Load type	Resistive
Switching frequency	≤ 100 Hz
Short-circuit protection	yes

Measuring ranges	
Frequency measurement	0.1 Hz to 200 kHz
Speed measurement	1 rpm to 25,000 rpm
Period duration measurement	5 ms to 120 s
Upper count limit	0x00000000 to 0x7FFFFFFF
Lower count limit	0x80000000 to 0x00000000

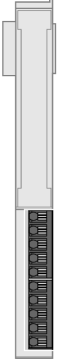
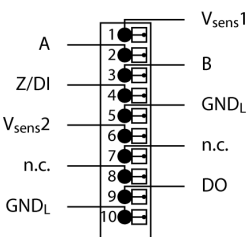
Functional principle

Electronics and connection technology are integrated in the housing. A base module is not needed. Economy modules and modules with separate electronics and connection technology can be fitted into a station, provided the base modules feature tension spring connections.

The use of gateways makes economy modules completely independent from the higher level fieldbus.

Number of parameter bytes	16
Dimensions (W x L x H)	13 x 128.9 x 74.6 mm
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 60068-2-31
Electromagnetic compatibility	Acc. to EN 61131-2
Protection class	IP20

Connection overview

	Counter and I/O signals The Vsens1 and Vsens2 sensor supplies are each limited to 0.5 A and short-circuit proof.	Pin assignment 
		Wiring diagram 