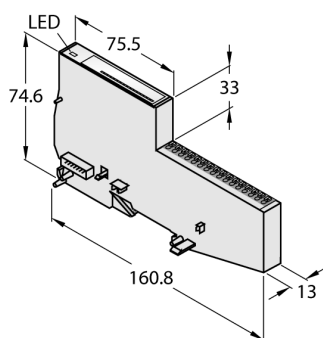


BL20 Economy Module

2 × Counter/Encoder Channels, 2x PWM Outputs

BL20-E-2CNT-2PWM



- Fieldbus-independent
- Electronics and connection technology in one housing
- Connectivity: Push-in terminals
- Protection class IP20
- LEDs indicate status and diagnostic
- Electronics galvanically isolated from the field level via optocouplers
- 2 x counter/encoder channels 200 kHz
- 2 PWM outputs 20kHz / 0.5A
- 2 digital outputs 20kHz / 0.5A
- Counting mode: Continuous, single or periodic count
- Measuring principle: Frequency, rotational speed or period duration measurement

Type	BL20-E-2CNT-2PWM
ID	6827341

Number of channels	2/2
Rated voltage from the supply terminal	24 VDC
Admissible range	18...30 VDC
Nominal current from field supply	≤ 20 mA
Nominal current from module bus	≤ 50 mA
Power dissipation, typical	≤ 1 W

Electrical isolation	Electronics and field level isolated via optocouplers
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Low-level signal voltage	Parametrizable: 0 to 1 VDC or 0 to 4.5 VDC
High level signal voltage	Parametrizable: 2.5 to 30 VDC or 7.5 to 30 VDC
Low level signal current	0 to 0.1 mA or 0 ... 0.4mA
High level signal current	0.3 to 3 mA or 0.6 ... 3 mA
Filter on	> 16 µs (62,5 kHz)
Filter off	< 2.5 µs (200 kHz)
Output connectivity	Push-in

Outputs	
Output type	PNP
Output voltage	24 VDC
Output current per channel	0.5 A
Output delay	0.2 ms
Load type	resistive, inductive, lamp load
Load resistance, resistive	> 48 Ω
Lamp load	< 10 W
Switching frequency	≤ 20000 Hz
Switching frequency, resistive	< 100 Hz
Switching frequency, inductive	< 2 Hz
Switching frequency, lamp load	< 10 Hz
Short-circuit protection	yes
Simultaneity factor	1

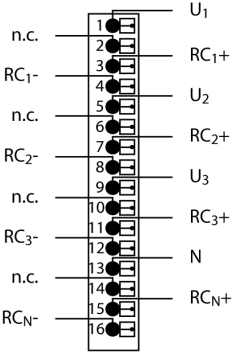
Functional principle

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.

Measuring ranges	
Frequency measurement	up to 200 kHz
Speed measurement	factor parametrizable
Period duration measurement	resolution 200 ns, max. period duration $(2^{32}-1) * 200$ ns
Upper count limit	0x80000000 up to 0x7FFFFFFF
Lower count limit	0x80000000 up to 0xFFFFFFFF
Number of parameter bytes	
15	
Dimensions (W x L x H)	
13 x 160.8 x 74.6 mm	
Approvals	CE
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	245 years acc. to SN 29500 (Ed. 99) 20 °C

Terminal assignment

	Zähler- bzw. PWM-Kanäle	Pin assignment 
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