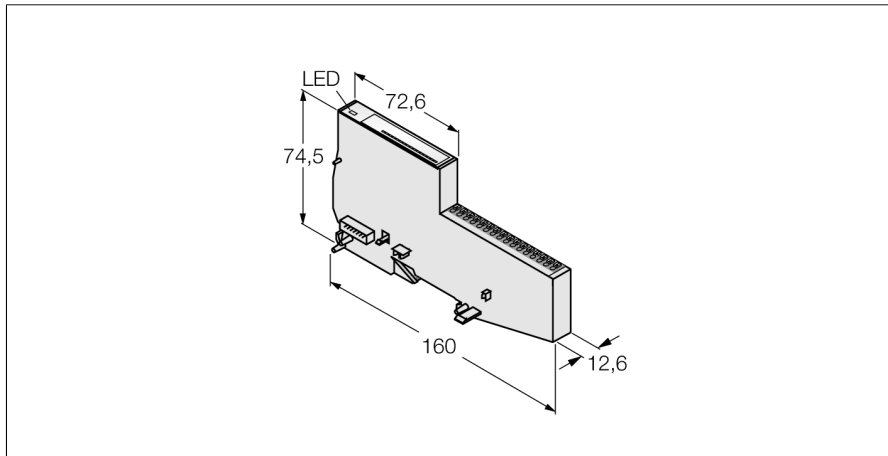


BL20 Economy Module

2 x 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

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.

Type designation	BL20-E-2CNT-2PWM
Ident-No.	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
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
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
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

BL20 Economy Module
2 x counter/encoder channels, 2x PWM outputs
BL20-E-2CNT-2PWM



Dimensions (W x L x H)	12.6 x 160 x 74.6mm
Approvals	CE
Operating temperature	0 to +55 °C
Storage temperature	-25...+85 °C
Relative humidity	5 to 95% (internal), Level RH-2, no condensation (at 45 °C storage)
Vibration test	acc. to EN 61131
Shock test	acc. to IEC 68-2-27
Drop and topple	acc. to IEC 68-2-31 and free fall to IEC 68-2-32
Electromagnetic compatibility	acc. to EN 50,082-2
Protection class	IP20

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BL20-E-2CNT-2PWM



Terminal assignment

	Zähler- bzw. PWM-Kanäle	Counter 1	1	A1 / DI1 (200kHz)
			2	B1 / DI2 (200kHz)
			3	Z1 / DI3 (10kHz)
			4	+UB
			5	GND
		Counter 2	6	A2 / DI4 (200kHz)
			7	B2 / DI5 (200kHz)
			8	Z2 / DI6 (10kHz)
			9	+UB
			10	GND
		PWM 1	11	P1 (0,5A / 20kHz)
			12	Direction / DO1 (0,5A)
			13	GND
		PWM 2	14	P2 (0,5A / 20kHz)
			15	Direction / DO2 (0,5A)
			16	GND