

Signal Doublers



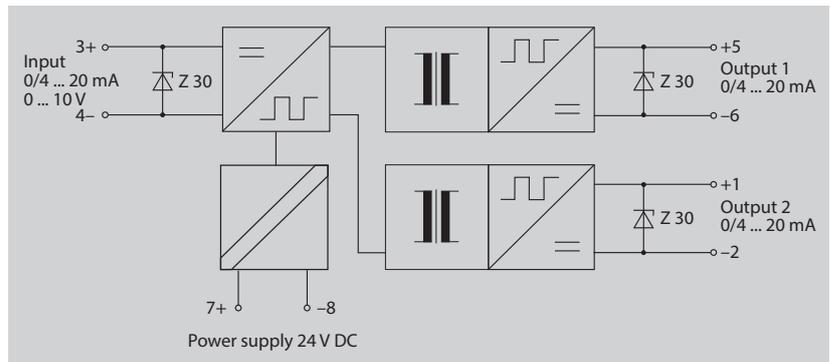
BasicLine BL 530

The load and signal doubler with high output power

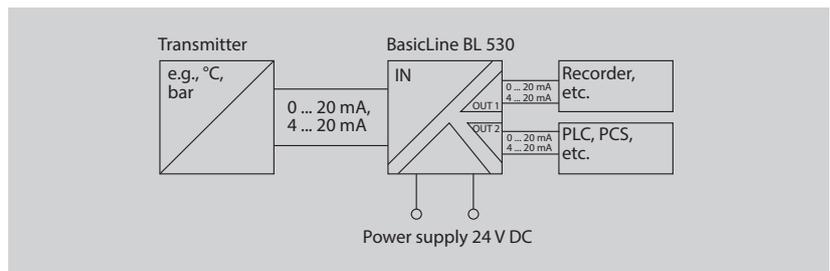
Facts

- Flexible input, two galvanically isolated 20-mA current outputs
- Both current outputs with a high load of 400 ohms
- 800 ohms load with outputs connected in series
- 6-mm housing requires minimal space
- Galvanic 4-port isolation prevents measurement errors
- Exemplary signal transmission for standard applications
- CE compliant and UL approved
- 3-year warranty
- Perfect price-performance ratio

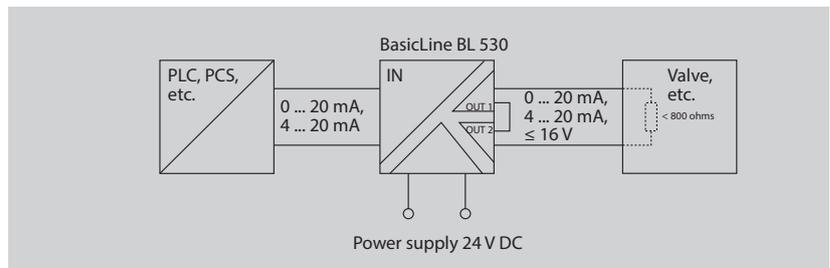
Block Diagram



Signal Doubling



Load Increase



Input ranges	Output	Power supply
0 ... 20 mA	0 ... 20 mA	24 V DC
4 ... 20 mA	4 ... 20 mA	

Product Line

Device	Input	2 outputs	Order No.
BasicLine BL 530	0 ... 20 mA, 4 ... 20 mA	0 ... 20 mA, 4 ... 20 mA	BL 530

Specifications

Input data

Range	0 ... 20 mA, 4 ... 20 mA
Load	≤ 8 V (≤ 400 ohms at 20 mA), ≤ 16 V (both outputs in series)
Overload capacity	Self-resetting overcurrent protection (PTC characteristic) Suppressor diode 30 V, < 3 mA

Output data

Range	0 ... 20 mA, 4 ... 20 mA
Load	≤ 8 V (≤ 500 ohms at 20 mA), ≤ 16 V (both outputs in series)
Residual ripple	< 10 mV _{rms}

Transmission behavior

Gain error	< 0.3 % full scale (DC)
Cutoff frequency	> 100 Hz
Temperature coefficient ¹⁾	0.01%/K full scale

Power supply

Power supply	24 V DC (± 15%), 1.2 W
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Isolation

Galvanic isolation	4-port isolation between input, outputs and power supply
Test voltage	1.5 kV AC
Working voltage	300 V AC/DC (basic insulation) with overvoltage category II / pollution degree 2 according to EN 61010-1

Standards and approvals

Conformity	CE compliant
EMC ²⁾	Product family standard: EN 61326
Approval	UL Recognized Components File-No. E220033, Standards: UL 508 and CAN/CSA 22.2 No. 14-95

Further data

Ambient conditions	Stationary operation, weatherproof, relative humidity 5 ... 95 %, no condensation, max. altitude 2000 m, water or wind-driven precipitation (rain, hail, snow) excluded
Ambient temperature	Operation: 0 ... +55 °C Transport, storage: -25 ... +85 °C
Housing	Modular housing, screw terminals, IP 20 protection
Mounting	35-mm mounting rail, EN 60715
Dimensions	6.1 mm x 101 mm x 93 mm
Wire cross-section	Max. 2.5 mm ² , 24-14 AWG
Weight	Approx. 50 g

1) Average TC in specified operating temperature range, reference temperature 23 °C

2) Slight deviations are possible while there is interference