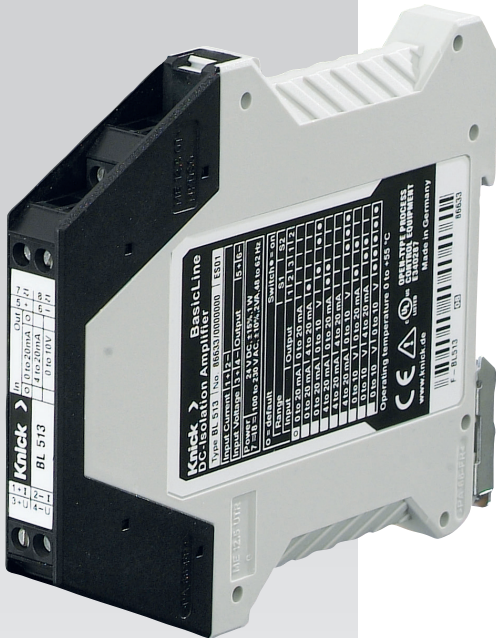


Isolators for Standard Signals



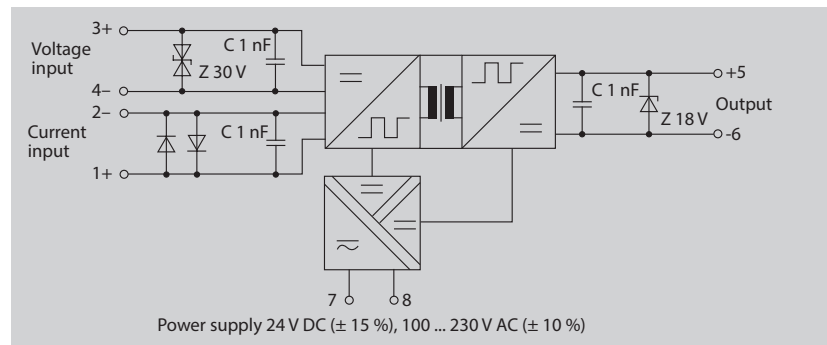
BasicLine BL 513

The mains-powered isolator for standard signals

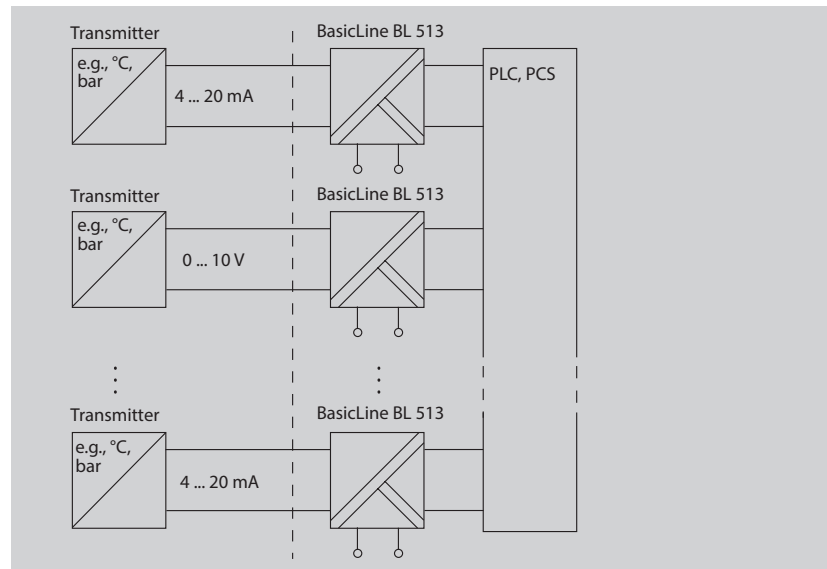
Facts

- Universal power adapter for 24 V DC supply or 100 ... 230 V mains supply
- Galvanic 3-port isolation prevents measurement errors
- Exemplary signal transmission for standard applications
- Conversion of one standard signal to another one, as required
- Calibrated range selection without complicated manual adjustments
- Easy configuration using DIP switches – protected against accidental adjustment
- CE compliant and UL approved
- 3-year warranty
- Perfect price-performance ratio

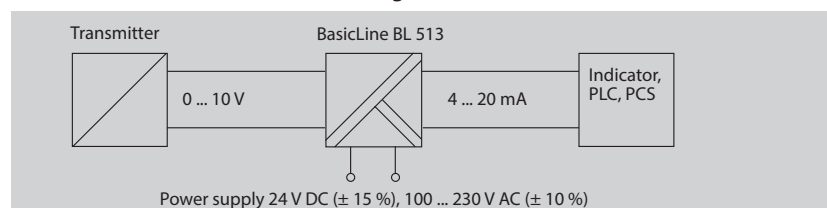
Block Diagram



Reliable Measurement due to Galvanic Isolation Between Field Level and Control Level



Signal Conversion, e.g. Voltage to Current, for Interference-Free Transmission over Long Distances



Input ranges	Output	Power supply
0 ... 20 mA	0 ... 20 mA	24 V DC or
4 ... 20 mA	4 ... 20 mA	100 ... 230 V AC mains supply
0 ... 10 V	0 ... 10 V	

Product Line

Device	Input	Output	Order No.
BasicLine BL 513 with calibrated switching of input and output	0 ... 20 mA 4 ... 20 mA 0 ... 10 V	0 ... 20 mA 4 ... 20 mA 0 ... 10 V	BL 513

Specifications

Input

Voltage	0 ... 20 mA, 4 ... 20 mA, 0 ... 10 V calibrated switching	
Input resistance	Current input	approx. 500 mV at 20 mA
	Voltage input	approx. 1 Mohm
Overload capacity	Current input	≤ 300 mA
	Voltage input	Suppressor diode 30 V, max. 20 mA

Output

Outputs	0 ... 20 mA, 4 ... 20 mA, 0 ... 10 V calibrated switching	
Load	Output current	≤ 10 V (500 ohms at 20 mA)
	Output voltage	≤ 10 mA (1 kohm at 10 V)
Residual ripple	< 20 mV _{rms}	

Transmission behavior

Gain error	< 0.3 % full scale (DC)	
Cutoff frequency	> 100 Hz	
Temperature coefficient ¹⁾	0.015 %/K full scale	

Power supply

Power supply	24 V DC (± 15%); 1 W 100 ... 230 V AC (± 10%), 48 ... 62 Hz, 2 VA	
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Isolation

Galvanic isolation	3-port isolation between input, output 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 Listed, File No. E340287, Standard: UL 61010-1 and CAN/CSA C22.2 No. 61010-1	

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	12.5 mm x 111 mm x 99 mm	
Wire cross-section	Max. 2.5 mm ² , 24-14 AWG	
Weight	Approx. 150 g	

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

2) Slight deviations are possible while there is interference