

BasicLine BL 560 Repeater Power Supply



1. General Information

The warning symbol on the device (exclamation point in triangle) means: Observe instructions!

Warning!

Protection against electric shock

For applications with high working voltages, take measures to prevent accidental contact and make sure that there is sufficient distance or insulation between adjacent devices.

Caution

Only trained and qualified personnel should install the BasicLine BL 560 repeater power supply.

Do not connect the devices to power supply before they are professionally installed.

Be sure to observe the national codes and regulations for installation and selection of cables and lines.

You must install a two-pole circuit breaker between device and mains supply (next to the device). It must be easily accessible and clearly identifiable by the operator. Mains supply must be protected by a fuse ≤ 20 A.

2. Intended Use

The BL 560 repeater power supply is used for galvanically isolated supply of a 2-wire transmitter and transmission of the measured signal.

This signal of the 2-wire transmitter is transmitted galvanically isolated to the output of the BL 560 as 4-20 mA standard signal.

Warning against misuse

Do not operate the device outside the conditions specified by the manufacturer, as this might result in hazards to operators or malfunction of the equipment.

Caution

The system installer is responsible for the safety of the system in which the device is integrated.

3. Mounting, Electrical Connection



The units are snapped onto TS 35 standard rails and laterally fixed by suitable end brackets. See dimension drawing for terminal assignments. Conductor cross-sections single wire or stranded 0.5 ... 2.5 mm², with ferrule 0.5 ... 1.5 mm², AWG 26-14, tightening torque 0.4 Nm.

4. Declarations and Approvals

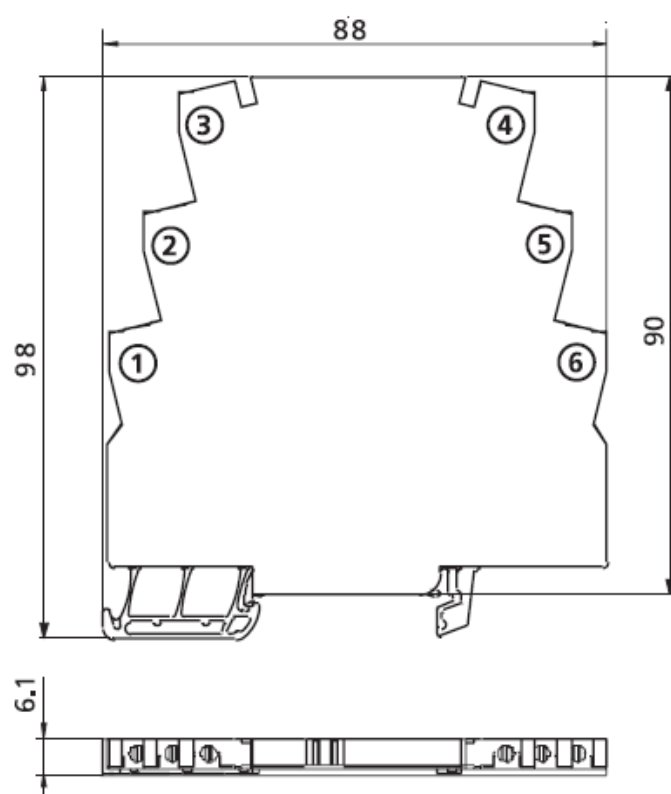
UL Listed, File No. E340287, Standard: UL 61010-1 and CAN/CSA C22.2 No. 61010-1

5. Specifications

Input data	
Input (current loop) Supply voltage	4...20 mA supply voltage 16.5 V, constant for 3 ... 22 mA, short-circuit-proof Current limited to max. 25 mA
Residual ripple	< 10 mV _{rms}
Output data	
Output	4 ... 20 mA
Output signal in case of short circuit at input	22 ... 25 mA
Output signal in case of open input	< 3 mA
Load	≤ 10 V (≤ 500 ohms at 20 mA)
Cutoff frequency	30 Hz
Residual ripple	< 10 mV _{rms}
General Data	
Gain error	< 0.25 % full scale
Temperature influence	< 0.01 %/K full scale (average TC, reference temperature 23 °C)

 Power supply (voltage supply with double, reinforced insulation, SELV/PELV)	24 V DC ($\pm 15\%$), approx. 1.2 W
Galvanic isolation	3-port isolation between input (current loop), output and power supply
Test voltage	510 V AC input (current loop) against output
Working voltage (basic insulation)	150 V AC/DC across input (current loop) and output / power supply with overvoltage category II and pollution degree 2 according to EN 61010-1. For applications with high working voltages, take measures to prevent accidental contact and make sure that there is sufficient distance or insulation between adjacent devices.
EMC ¹⁾	Product family standard: EN 61326
Ambient temperature	
 Operation Transport / storage	0 ... +55 °C -25 ... +85 °C
Ambient conditions	Stationary application, weather-protected Relative humidity 5 ... 95 %, no condensation Altitude up to 2000 m Water or wind-driven precipitation (rain, snow, hail) excluded
Ingress protection	IP 20
Design	Modular housing
Mounting	For 35-mm mounting rail (EN 60715)
Weight	Approx. 50 g

Dimension drawing



- 1 Current loop +
- 2 Current loop -
- 3 Power supply -
- 4 Power supply +
- 5 Output -
- 6 Output +

Order information

Type	In	Out Order	No.
BasicLine BL 560	4...20mA	4...20mA	BL 560