Technical Data Sheet

I1B0A10C

Current Pulse Sensor

Properties
- Small housing
- Measurement range up to ±100 A
- Precise folding mechanism
- High overload limit

Application
- General test and measurement
- Fatigue life tests
- Vehicle crash

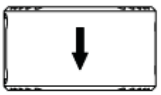
Measurement specification
- Hall effect

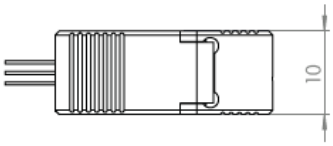
Options
- ID-Module integrated in sensor

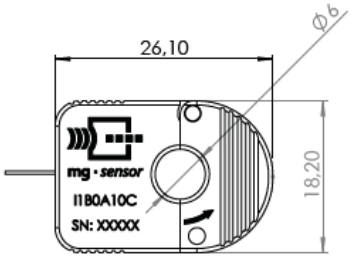
Technical description

If a current flow through a Hall sensor and is brought into a magnetic field perpendicular to this, the sensor provides an output voltage that is proportional to the product of magnetic field strength and current. The Hall sensor also provides a signal when the magnetic field is constant. As a result, direct currents can also be measured. The measured output signal of the Hall sensor is directly proportional to the current that flows through the conductor. In order to meet the tough requirements in the test, the mechanical construction has been designed as folding mechanism. The design has been optimized by letting the sensor open easily; however, it remains firmly closed in the closed state.

Dimensions







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Technical specification

	Unit	Value	Comment
Nominal measuring range	A	±100	
Calibration	A	±30	Standard
Sensitivity[1)]	mV/V/A	3.5	±1.5
Output signal[1), 2)]	mV/V	350	
Zero signal[1)]	mV/V	≤ 10	
Response time[1)]	µs	3.0	
Amplitude non-linearity[3)]	%	≤ 1.5	
Current consumption	mA	19	
Supply voltage	V	5–13.5	
Insulation resistance	MΩ	> 100	
For cable diameter	mm	< 6.0	
Temperature range	°C	-30…+70	
Weight (approximately)	g	11	

All values measured at 5 V sensor supply voltage and 23 °C.

[1)] Typical value

[2)] At nominal load

[3)] Relative calibration range ±30 A

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