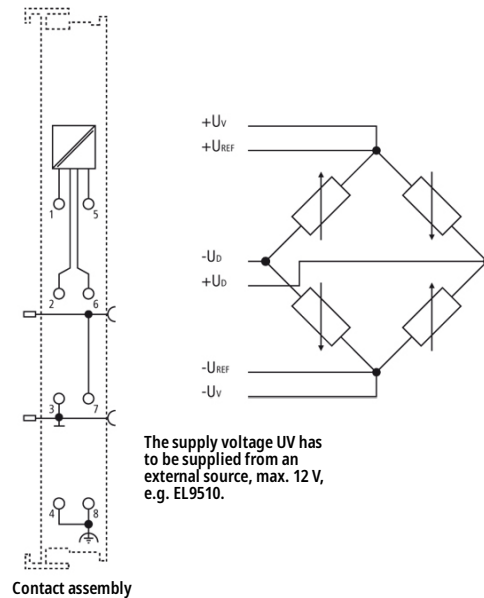
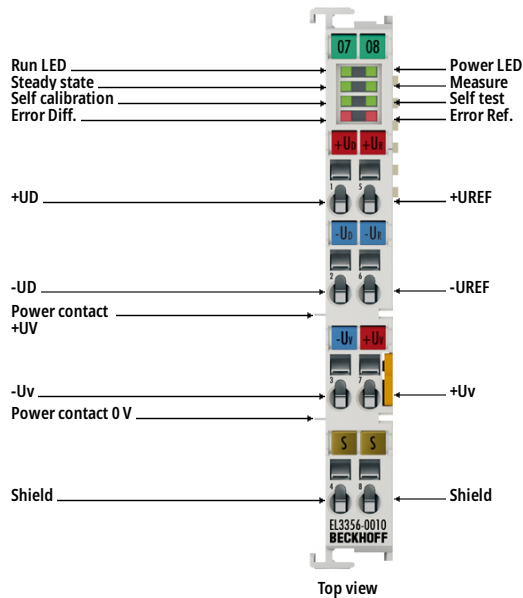
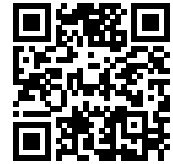


EL3356-0010 | EtherCAT Terminal, 1-channel analog input, measuring bridge, full bridge, 24 bit, high-precision



i **Product status:** Regular delivery

The analog EL3356-0010 input terminal enables direct connection of a resistor bridge or load cell in a 4- or 6-wire connection technology. The ratio between the bridge voltage U_D and the supply voltage U_{REF} is determined simultaneously in the input circuit and the final load value is calculated as a process value on the basis of the settings in the terminal. With automatic self-calibration (can be deactivated), dynamic filters and distributed clock support, the terminal with measuring cycles of 100 μ s can be used for fast and precise monitoring of torque or vibration sensors.

Product information

Technical Data

Technical data	EL3356-0010
Number of inputs	2, for 1 resistor bridge in full bridge technology
Technology	resistor bridge, strain gauge
Distributed clocks	yes
Measuring range UD	max. ± 27 mV
Measuring range UREF	max. ± 13.8 V
Internal resistance	> 200 k Ω (UREF), > 1 M Ω (UD)
Input filter limit frequency	10 kHz low pass (-3 dB)
Resolution	24 bit, 32 bit presentation

Conversion time	0.1...250 ms, configurable, max. 10,000 samples/s
Conversion rate	10,000...4 samples/s (0.1...250 ms conversion time)
Power supply UV	up to 12 V DC from power contacts, dependent on sensor
Measuring error	< ±0.01 % for the calculated load value in relation to the final load value with a 12 V feed and 24 mV bridge voltage (hence nominal strain gauge characteristic value of 2 mV/V), self-calibration active, 50 Hz filter active
Current consumption power contacts	depends on strain gauge supply, min. 1 mA
Current consumption E-bus	typ. 280 mA
Supported nominal sensitivity	all, parameter resolution: 0.01 µV/V; recommended: 0.5...4 mV/V
Special features	self-calibration, quadruple averager, dynamic filters, fast data sampling
Weight	approx. 60 g
Operating/storage temperature	0...+55 °C/-25...+85 °C
Relative humidity	95 %, no condensation
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
Protect. rating/installation pos.	IP20/variable
Approvals/markings	CE, UL, ATEX, IECEx, cFMus
Ex marking	ATEX: II 3 G Ex nA IIC T4 Gc IECEx: Ex nA IIC T4 Gc Ex tc IIIC T135 °C Dc cFMus: Class I, Division 2, Groups A, B, C, D Class I, Zone 2, AEx ec IIC T4 Gc

Housing data	EL-12-8pin
Design form	compact terminal housing with signal LEDs
Material	polycarbonate
Dimensions (W x H x D)	12 mm x 100 mm x 68 mm
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock
Side by side mounting by means of	double slot and key connection
Marking	labeling of the BZxxx series
Wiring	solid conductor (e), flexible conductor (f) and ferrule (a): spring actuation by screwdriver
Connection cross-section	s*: 0.08...2.5 mm ² , st*: 0.08...2.5 mm ² , f*: 0.14...1.5 mm ²
Connection cross-section AWG	s*: AWG 28...14, st*: AWG 28...14, f*: AWG 26...16
Stripping length	8...9 mm
Current load power contacts	I _{max} : 10 A

*s: solid wire; st: stranded wire; f: with ferrule