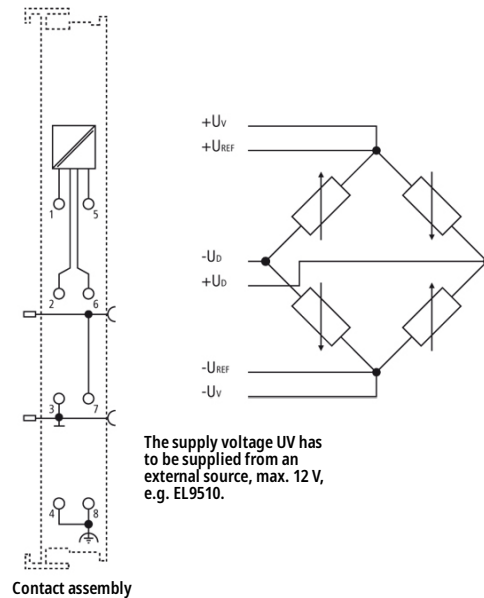
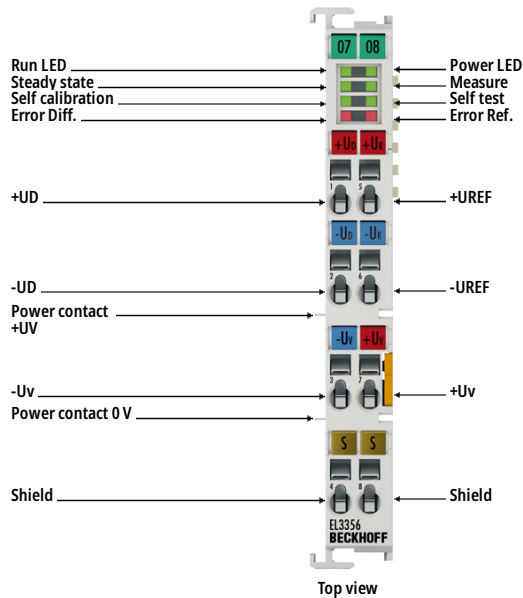
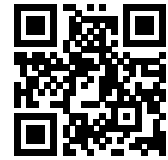


# EL3356 | EtherCAT Terminal, 1-channel analog input, measuring bridge, full bridge, 16 bit



**i** **Product status:** Regular delivery

The analog EL3356 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) and dynamic filters the terminal with measuring cycles of 10 ms can be used for slow weighings with high precision.

## Product information

### Technical Data

Technical data	EL3356, ES3356
Number of inputs	2, for 1 resistor bridge in full bridge technology
Power supply	via the E-bus
Technology	resistor bridge, strain gauge
Signal type	differential
Distributed clocks	-
Measuring range $U_D$	max. $\pm 27$ mV
Measuring range $U_{REF}$	max. $\pm 13.8$ V
Internal resistance	$> 200$ k $\Omega$ ( $U_{REF}$ ), $> 1$ M $\Omega$ ( $U_D$ )
Input filter limit frequency	10 kHz low pass (-3 dB)

Conversion rate	100...4 samples/s (10...250 ms conversion time)
Power supply UV	up to 12 V DC from power contacts, dependent on sensor
Resolution	16 bit, 32 bit presentation
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. 210 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
Weight	approx. 60 g
Operating/storage temperature	0...+55 °C/-25...+85 °C
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. rating/installation pos.	IP20/variable
Pluggable wiring	for all ESxxxx terminals
Approvals/markings	CE, UL, ATEX, IECEx
Ex marking	II 3 G Ex nA IIC T4 Gc Ex nA IIC T4 Gc Ex tc IIIC T135 °C Dc

Housing data	EL-12-8pin	ES-12-8pin
Design form	compact terminal housing with signal LEDs	terminal housing with pluggable wiring level
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 <sup>2</sup> , st*: 0.08...2.5 mm <sup>2</sup> , f*: 0.14...1.5 mm <sup>2</sup>	s*: 0.08...1.5 mm <sup>2</sup> , st*: 0.08...1.5 mm <sup>2</sup> , f*: 0.14...1.5 mm <sup>2</sup>
Connection cross-section AWG	s*: AWG 28...14, st*: AWG 28...14, f*: AWG 26...16	s*: AWG 28...16, st*: AWG 28...16, f*: AWG 26...16
Stripping length	8...9 mm	9...10 mm
Current load power contacts	I <sub>max</sub> : 10 A	

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

## Ordering Information

Ordering information	
EL3356	EtherCAT Terminal, 1-channel analog input, measuring bridge, full bridge, 16 bit
ES3356	EtherCAT Terminal, 1-channel analog input, measuring bridge, full bridge, 16 bit, pluggable wiring

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