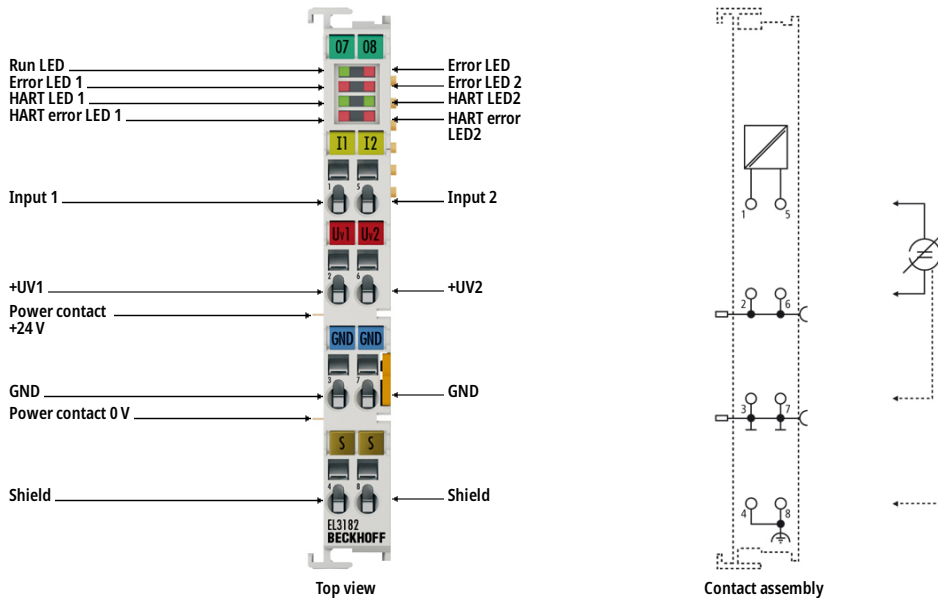
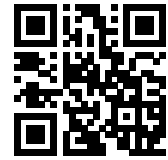


EL3182 | EtherCAT Terminal, 2-channel analog input, current, 0/4...20 mA, 16 bit, single-ended, HART



i Product status: Regular delivery

The EL3182 analog input terminal for HART-capable field devices supplies measuring transducers located in the field and transmits their analog measuring signals electrically isolated to the automation device. With a technical measuring range of 107 % of the nominal range, the terminal also supports commissioning with sensor values in the limit range and the evaluation according to NAMUR NE43. The EtherCAT Terminal indicates the signal state by means of light emitting diodes. Error LEDs signal overload and wire breakage, in addition to which LEDs provide information about the state of the HART communication and signal any communication errors.

The HART (Highway Addressable Remote Transducer) protocol enables two-way communication through digital data transfer via the analog 0/4...20 mA wiring. In this way, in addition to the analog current signal, further data can be exchanged with the field device via the superimposed digital signal.

The HART communication can also be used for the FDT/DTM concept. The TwinCAT FDT container enables the integration of field device DTMs into TwinCAT Engineering, so that the device configuration and diagnostic functions are available directly within the development environment.

Product information

Technical Data

Technical data	EL3182, ES3182
Number of inputs	2
Technology	HART (version 7)

Signal type	single-ended
Signal current	0/4...20 mA
Power supply	via the E-bus
Internal resistance	typ. 250 Ω
Input filter limit frequency	25 Hz
Dielectric strength	max. 30 V
Measuring range, technical	generally 107 % of the nominal measuring range, see documentation
Resolution	16 bit (incl. sign)
Measuring error	< ± 0.3 % (relative to full scale value)
Distributed clocks	yes
Electrical isolation	500 V (E-bus/signal voltage)
Current consumption power contacts	–
Current consumption E-bus	typ. 130 mA
Special features	standard and compact process image, activatable FIR/IIR filters, limit value monitoring, ExtendedRange 107 %, NE43 NAMUR
Weight	approx. 60 g
Operating/storage temperature	-25...+60 °C/-40...+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 ESxxx terminals
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	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 ² , st*: 0.08...2.5 mm ² , f*: 0.14...1.5 mm ²	s*: 0.08...1.5 mm ² , st*: 0.08...1.5 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	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 _{max} : 10 A	

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

Ordering Information

Ordering information	
EL3182	EtherCAT Terminal, 2-channel analog input, current, 0/4...20 mA, 16 bit, single-ended, HART
ES3182	EtherCAT Terminal, 2-channel analog input, current, 0/4...20 mA, 16 bit, single-ended, HART, pluggable wiring