



## EL3182 | 2-channel analog input terminal 4...20 mA, single-ended, 16 bit, HART



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 HART (Highway Addressable Remote Transducer) protocol enables two-way communication through digital data transfer via the analog 4...20 mA wiring. The advantages of the simple and robust 4...20 mA interface are combined with the diagnostic and parameterisation options of a digital interface. The power contacts of the EL3182 can optionally be supplied with operating voltage in the standard way or via a power feed terminal (EL9xxx) with electrical isolation. The input electronics are independent of the supply voltage of the power contacts. The reference potential for the inputs is the 0 V power contact. 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.

Technical data	EL3182   ES3182
Number of inputs	2
Technology	HART (Rev. 7)
Signal type	single-ended
Signal current	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. class/installation pos.	IP 20/variable
Pluggable wiring	for all ESxxxx terminals
Approvals	CE, Ex, IECEx

Related products	
<b>EL1052</b>	2-channel digital input terminal NAMUR, DC switching amplifier for NAMUR sensors according to EN 60947-5-6
<b>ELX1052</b>	2-channel digital input terminal NAMUR, Ex i
<b>ELX3181</b>	1-channel analog input terminal 4...20 mA, single-ended, 16 bit, HART, Ex i