



Top view

## i ELX3152-0090 | 2-channel analog input terminal 0/4...20 mA, single-ended, 16 bit, Ex i, TwinSAFE SC



The ELX3152-0090 analog input terminal allows the direct connection of intrinsically safe field devices located in hazardous areas classified Zone 0/20 or 1/21. It supplies measuring transducers located in the field and transmits their analog measuring signals electrically isolated to the automation device. The EtherCAT Terminal indicates the signal state by means of light emitting diodes. The error LEDs indicate an overload condition and wire breakage.

With the aid of the TwinSAFE SC technology (TwinSAFE Single Channel) it is possible to make use of standard signals for safety tasks in any network or fieldbus. The standard functions and features of the I/Os remain available. The data from these TwinSAFE SC I/Os is fed to the TwinSAFE Logic, where they undergo safety-related multi-channel processing. In the Safety Logic the data originating from different sources is analysed, checked for plausibility and submitted to a "voting". This is done by certified function blocks such as Scale, Compare/Voting (1oo2, 2oo3, 3oo5), Limit, etc. For safety reasons, however, at least one of the data sources must be a TwinSAFE SC component. The remainder of the data can originate from other standard I/Os, drive controllers or measuring transducers.

With the aid of the TwinSAFE SC technology it is typically possible to achieve a safety level equivalent to PL d/Cat. 3 in accordance with EN ISO 13849-1 or SIL 2 in accordance with EN 62061.

Technical data	ELX3152-0090
Technology	intrinsically safe sensors
Signal current	0/4...20 mA
Number of inputs	2 (single-ended)
Connection method	2- or 3-wire (default: 3-wire)
Resolution	16 bit (incl. sign)
Measuring error	< ±0.3 % (relative to full scale value)
Measuring resistance	typ. 100 Ω
Input filter limit frequency	5 kHz
Conversion time	typ. 1 ms
Supply voltage electronics	24 V DC (via power contacts), ELX9560 power supply
Current consumption power contacts	typ. 10 mA + load
Current consumption E-bus	typ. 85 mA
Distributed clocks	yes
Special features	standard and compact process image, activatable FIR/IIR filters, limit value monitoring, NE43 NAMUR, TwinSAFE SC
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/see documentation
Approvals	CE, Ex

<b>further Ex components</b>	
<b>ELXxxxx</b>	EtherCAT Terminals with intrinsic safe in- and output
<b>ELXxxxx-0090</b>	EtherCAT Terminals with intrinsic safe in- and output and TwinSAFE SC
<b>CPXxxxx</b>	Multi-touch Panel PCs and multi-touch Control Panels for use in hazardous areas, Zone 2/22

<b>i</b> <b>Product announcement</b>	estimated market release 3rd quarter 2018
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