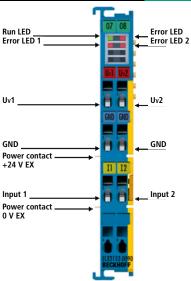
## Analog input ELX3152-0090





## 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 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. To do this, EtherCAT I/Os from the areas of analog input, position measurement or communication (4...20 mA, incremental encoder, IO-Link, etc.) are extended by the TwinSAFE SC function. The properties typical for the signals and the standard functions of the I/O components are retained. TwinSAFE SC I/Os differ optically from standard I/Os by a yellow stripe on the front of the housing.

The TwinSAFE SC technology enables communication via a TwinSAFE protocol. These connections can be distinguished from the usual secure communication via Safety over EtherCAT.

The data from the TwinSAFE SC components is fed via a TwinSAFE protocol to the TwinSAFE Logic, where it can be used in the context of safety-relevant applications. Detailed examples confirmed/calculated by the TÜV SÜD for the correct application of the TwinSAFE SC components and the respective normative classifications can be found in the TwinSAFE application manual.

| Technical data                     | ELX3152-0090   |
|------------------------------------|--|
| Technology                         | intrinsically safe sensors   |
| Signal current                     | 0/420 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/markings                 | CE, ATEX, IECEX  |

| Ex-Marking | II 3(1)G Ex ec [ia Ga] IIC T4 Gc II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I Ex ec [ia Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I |
|------------|---|

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