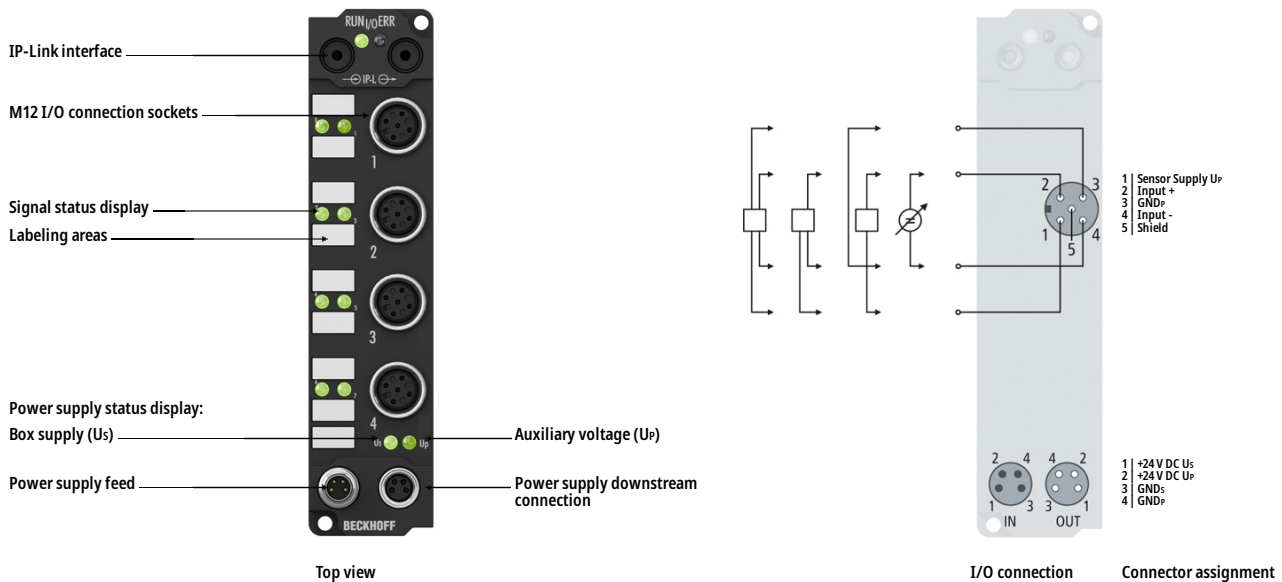
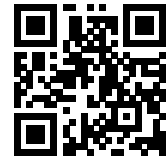


IE3102 | Extension Box, 4-channel analog input, voltage, ± 10 V, 16 bit, differential, M12



i Product status: Regular delivery

The IE3102 analog input module handles signals in the range from -10 to $+10$ V. The voltage is digitized to a resolution of 16 bits and is transmitted, electrically isolated, to the higher-level automation device. The four input channels have differential inputs and possess a common, internal ground potential. The applied auxiliary voltage (which can be any value up to 30 V DC) is fed through to supply the sensor. It is thus possible, for instance, to supply a measuring potentiometer with 10 V DC from an external voltage source.

The module is quite versatile, but default settings have been selected in such a way that in most cases it is not necessary to perform configuration. The input filter and associated conversion times can be set within a wide range; several data output formats may be chosen. If required, the inputs can be scaled differently. Automatic limit monitoring is also available. Parameterization may be carried out either via the fieldbus or using the KS2000 software tool.

Product information

Technical data

Technical data	IE3102
Number of inputs	4
Input connections	M12, screw type
Signal voltage	$-10/0\dots+10$ V
Internal resistance	> 100 k Ω
Common-mode voltage U_{CM}	max. 35 V
Resolution	16 bit (for $0\dots10$ V range: resolution 15 bit)

Measurement error/ uncertainty	< ±0.3 % (relative to full scale value)
Conversion time	250 ms, configurable to 5 ms
Nominal voltage	24 V DC (-15 %/+20 %)
Input filter	configurable
Sensor supply	from load supply voltage U _P
Current consumption from U _s (without sensor current)	55 mA
Power supply connection	feed: 1 x M8 male socket, 4-pin; downstream connection: 1 x M8 female socket, 4-pin
Bit width in the process image	input: 4 x 16 bit data (4 x 8 bit control/status optional)
Electrical isolation	channels/control voltage: 500 V, between the channels: no, control voltage/fieldbus: yes, via IP-Link
Operating/storage temperature	0...+55 °C/-25...+85 °C
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.	IP65/66/67 (conforms to EN 60529)/variable
Approvals/markings	CE, UL

Housing data	Extension Box
Dimensions (W x H x D)	30 mm x 126 mm x 26.5 mm
Material	PA6 (polyamide)
Installation	2 fixing holes 3.5 mm diameter for M3

Accessories

Accessories	
ZK1020-0101-0xxx	pre-assembled IP-Link cable, drag-chain suitable
ZK2000-6100-0xxx	M12, plug, straight, male, 4-pin, A-coded – open end
ZK2000-6162-0xxx	M12, plug, straight, male, 4-pin, A-coded – M12, socket, straight, female, 4-pin, A-coded
ZK2020-3200-0xxx	M8, socket, straight, female, 4-pin – open end
ZK2020-3132-0xxx	M8, plug, straight, male, 4-pin – M8, socket, straight, female, 4-pin
ZS1020-0010	IP-Link plug, 1 piece, plug for IP-Link system
ZS2000-2610	Plug field assembly, Sensor, IP65/67, M12, straight, male, 4-pin, A-coded, 0.14...1.5 mm ² , Ø 4...8 mm
ZS2000-2710	Plug field assembly, Sensor, IP65/67, M12, straight, male, 5-pin, A-coded, 0.25...1.5 mm ² , Ø 4...8 mm
ZS2000-2310	Plug field assembly, Sensor and Power, IP65/67, M8, straight, male, 4-pin, A-coded, 0.14...0.5 mm ² , Ø 4...5.5 mm
ZS2000-2320	Socket field assembly, Sensor and Power, IP65/67, M8, straight, female, 4-pin, A-coded, 0.14...0.5 mm ² , Ø 4...5.5 mm

ZS5300-0011	Mounting plate for 14 small or 7 wide EtherCAT-/ EtherCAT P box modules, stainless steel, 500 mm x 130 mm x 1.5 mm
ZS5000-0014	blanking plug, plastic (IP65/67), for M8 socket, green, packaging unit = 50 pieces
ZS5000-0020	blanking plug, plastic (IP67), for M12 socket, packaging unit = 50 pieces
ZB8801-0000	torque wrench for hexagonal plugs, adjustable
ZB8801-0001	torque cable key, M8/wrench size 9, for ZB8801-0000
ZB8801-0002	torque cable key, M12/wrench size 13, for ZB8801-0000
