



## EP3184-0002 | 4-channel analog input $\pm 10$ V or 0/4...20 mA, parameterisable, single-ended, 16 bit

The EP3184 EtherCAT Box has four analog inputs which can be individually parameterised, so that they process signals either in the  $-10/0...+10$  V or the 0/4...20 mA range. The voltage or input current is digitised with a resolution of 16 bits, and is transmitted (electrically isolated) to the higher-level automation device. The four input channels are single-ended inputs and possess a common, internal ground potential. The input filter and therefore the conversion times are configurable in a wide range. If required, the inputs can be scaled differently, and automatic limit monitoring is also available. EtherCAT is used for parameterisation purposes. The parameters are stored in the module.

The signals are optionally connected via 1 channel per M12 socket (EP3184-0002) or via 2 channels per M12 socket (EP3184-1002). In the 2-channel version socket 2 and 4 are not allocated.

Technical data	EP3184-0002	EP3184-1002
Number of inputs	4 (single-ended), 1 per socket	4 (single-ended), 2 per socket, sockets 2 and 4 not allocated
Input connections	M12, screw type	
Protocol	EtherCAT	
Bus interface	2 x M8 socket, shielded, screw type	
Signal type	$-10/0...+10$ V   0/4...20 mA	
Internal resistance	$> 200$ k $\Omega$   typ. 85 $\Omega$ + diode voltage	
Common-mode voltage $U_{cm}$	max. 35 V	
Resolution	16 bit (incl. sign)	
Measuring error	$< \pm 0.3$ % (relative to full scale value)	
Input filter limit frequency	5 kHz	
Conversion time	$\sim 100$ $\mu$ s	
Nominal voltage	24 V DC ( $-15$ %/ $+20$ %)	
Distributed clocks	yes	
Input filter	configurable	
Sensor supply	from load supply voltage $U_p$	
Current consumption from $U_s$	120 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	4 x 16 bit input, 4 x 8 bit status	
Electrical isolation	500 V	
Special features	current or voltage parameterisable	
Weight	approx. 165 g	
Operating/storage temperature	$-25...+60$ °C/ $-40...+85$ °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. class/installation pos.	IP 65/66/67 (conforms to EN 60529)/variable	
Approvals/markings	CE, UL, ATEX	
Ex-Marking	II 3 G Ex nA IIC T4 Gc	

Accessories	
ZK1090-3xxx-xxxx	Cables for EtherCAT signal in- and -output
ZK2000-6xxx-xxxx	Cables for M12 I/O connection sockets
ZK2000-5xxx/71xx-xxxx	Sensor cable 5-wire unshielded/shielded
ZK2020-3xxx-xxxx	Cables for M8 power supply