



ER3184-0002 | 4-channel analog input ± 10 V or 0/4...20 mA, parameterisable, single-ended, 16 bit

The ER3184 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 EtherCAT Box modules with zinc die-cast housing are ready for use in harsh industrial and process environments. With the fully sealed design and metal surfaces the ER series is ideal for applications requiring enhanced load capacity and protection against weld spatter, for example.

Technical data	ER3184-0002	ER3184-1002
Number of inputs	4 (single-ended)	
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 Ω 85 Ω typ. + diode voltage	
Common-mode voltage U_{cm}	35 V max.	
Resolution	16 bit (incl. sign)	
Measuring error	$< \pm 0.3$ % (relative to full scale value)	
Input filter limit frequency	5 kHz	
Conversion time	~ 100 μ 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 (without sensor current)	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	
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	CE, UL in preparation	

Related products	
EP3184	EtherCAT Box, industrial housing, 4-channel analog input ± 10 V or 0/4...20 mA, parameterisable, single-ended, 16 bit