



## EP1816-3008 | 16-channel digital input 24 V DC, 2 x 3-axis accelerometers

The EP1816-3008 EtherCAT Box with 16 digital inputs acquires the binary control signals from the process level and transmits them, in an electrically isolated form, to the controller. The state of the signals is indicated by light emitting diodes. The signals are connected via 25-pin D-sub socket.

The EtherCAT Box has two internal 3-axis accelerometers with 16 bits and a selectable resolution of  $\pm 2$  g,  $\pm 4$  g,  $\pm 8$  g and  $\pm 16$  g. The sampling frequency is 1 Hz to 5 KHz. Possible applications include the recording of vibrations and shocks/oscillations, and furthermore inclination measurements in all three axes.

The sensors are supplied from the box supply voltage  $U_s$ . The auxiliary voltage  $U_p$  is not used in the input module, but may be connected in order to be relayed downstream. Undervoltage detection ( $U_s$  and  $U_p$ ) is integrated and is signalled to the controller.

Technical data	EP1816-3008
Specification	EN 61131-2, type 1/3
Number of inputs	16
Input connections	D-sub socket, 25-pin
Sensors	$\pm 2 \dots 16$ g   16 bits
Protocol	EtherCAT
Bus interface	2 x M8 socket, shielded, screw type
Nominal input voltage	24 V DC (-15 %/+20 %)
Input filter	10 $\mu$ s
"0" signal voltage	-3...+5 V (EN 61131-2, type 3)
"1" signal voltage	11...30 V (EN 61131-2, type 3)
Input current	typ. 3 mA (EN 61131-2, type 3)
Distributed clocks	yes
Sensor supply	from control voltage, max. 0.5 A total, short-circuit-proof
Power supply connection	feed: 1 x M8 male socket, 4-pin; downstream connection: 1 x M8 female socket, 4-pin
Current consumption from $U_s$ (without sensor current)	120 mA
Electrical isolation	500 V
Special features	integrated accelerometers
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

Accessories	
ZK1090-3xxx-xxxx	Cables for EtherCAT signal in- and -output
ZK2020-3xxx-xxxx	Cables for M8 power supply
ZS2002-0111	D-sub plug, 25-pin, solder contacts, IP 67