



EP3744-0041 | Differential pressure measuring box, 6 digital inputs 24 V DC, 2 digital outputs 24 V DC, 0.5 A, 4 pressure inputs -1...1 bar

The EP3744-0041 EtherCAT Box, equipped with six digital inputs, two digital outputs and four pressure inputs, acquires these signals and transmits them – electrically isolated – to the controller. The signal status is indicated by LEDs; the digital signals are connected via 4-pin M8 screw type connectors.

The pressure is measured as the differential pressure to the fifth connection by an integrated 6 mm fitting. The pressure values are available as 16-bit values. Measurement can be made between -1...1 bar, with the value being output in relation to the fifth connection, e.g. for vacuum measurement in relation to the ambient pressure at suction grippers. In absolute-pressure mode it is possible to measure pressures between 0...1 bar.

Technical data	EP3744-0041
Number of channels	6 digital inputs, 2 digital outputs, 4 pressure inputs
Connection method	digital signals: 4-pin M8; pressure measurement: 6 mm fitting
Protocol	EtherCAT
Signal type	air pressure
Measuring range	0...1 bar (0...15 psi)/ -1...1 bar (-15...15 psi)
Resolution	1 mbar per digit
Measuring error	3 %
Conversion time	~ 3.5 ms
Nominal voltage	24 V DC (-15 %/+20 %)
Distributed clocks	yes
Input filter	10 µs (for digital inputs)
Specification	EN 61131-2, type 1/3
Max. output current	0.5 A per channel, individually short-circuit-proof
Load type	ohmic, inductive, lamp load
Short circuit current	typ. 1.5 A
Sensor supply	from load supply voltage, max. 0.5 A total, short-circuit-proof
Current consumption from Us	120 mA
Power supply connection	feed: 1 x M8 male socket, 4-pin; downstream connection: 1 x M8 female socket, 4-pin
Electrical isolation	500 V
Special features	direct pressure measuring at the machine
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
ZK2000-xxxx-xxxx	Cables for M8 I/O connection sockets
ZK2020-3xxx-xxxx	Cables for M8 power supply

Related products	
EP3744-1041	EtherCAT Box, industrial housing, 6 digital inputs 24 V DC, 10 μ s, 2 digital outputs, 24 V DC, $I_{max} = 0.5$ A, 4 pressure inputs 0...7 bar, pressure measurement: 6 mm fitting