

EP3754-0702 | EtherCAT Box, 4-channel analog input, ID switch, multi-function, M12

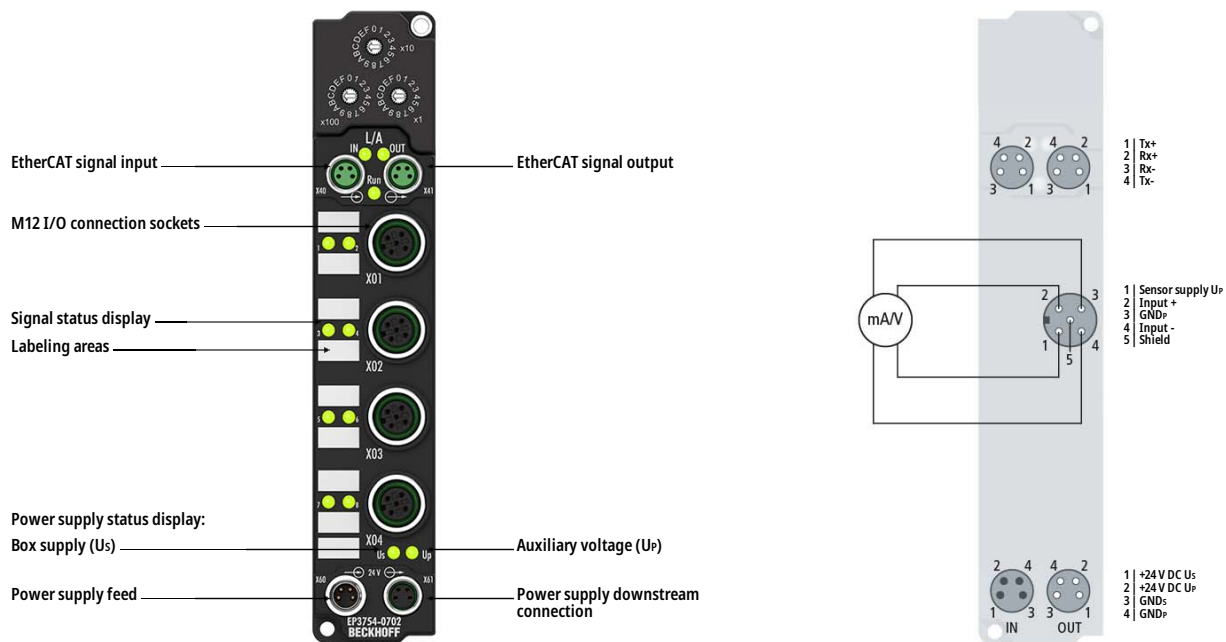
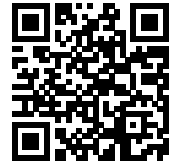


Image similar, may contain optional accessories

i Product status: product announcement | estimated market release 4th quarter 2025

The EP3754-0702 EtherCAT Box has four analog multi-functional inputs, which can be extensively parameterized on an individual basis:

- voltage measurement: ± 10 V, 0...10 V, 0...5 V
- current measurement: ± 20 mA, 4...20 mA, 0...20 mA
- resistance measurement: 0...5 k Ω
- electrical resistance R in 2-/3-/4-wire connection
- RTD measurement in 2-/3-/4-wire connection
- potentiometer: min. 1 k Ω

The measured values are digitalized with a 16-bit resolution and transmitted electrically isolated to the higher-level automation device. The input filters and their associated conversion times are configurable in a wide range. The inputs can, if required, be scaled differently, and automatic limit value monitoring is also available. EtherCAT is used for parameterization purposes. The parameters are stored in the module.

The EP3754-0702 has three additional hexadecimal ID switches. In this way, an individual address from 0...4095 can be set, allowing unique identification regardless of installation position, as required by some device profiles for certain industries, such as the semiconductor industry.

Product information

Technical data

Technical data	Analog input
Conversion time	~ 100 µs
Resolution	16 bit (incl. sign)
Sensor types	analog sensors, thermocouple: type B, C, E, J, K, L, N, R, S, T, U, mV measurement, temperature: Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni1000, resistance measurement (e.g. potentiometer, 10 Ω...1.2/4 kΩ)
Signal type	-10/0...+10 V -20mA/0/4...20 mA, RTD/Pt100/Pt1000, ±30/±60/±75 mV (thermocouple), parameterizable per channel
Common-mode voltage U _{CM}	max. 15 V
Internal resistance	> 200 kΩ typ. 85 Ω + diode voltage
Measurement error/uncertainty	< ±0.3% (relative to full scale value)
Input filter limit frequency	5 kHz
Input filter	configurable
Sensor supply	from load supply voltage, max. 0.5 A, short-circuit proof in total

Technical data	General
Protocol	EtherCAT
Bus interface	2 x M8 socket, 4-pin, a-coded, shielded
Number of configurable IDs	4096
Number of inputs	4
Input connections	M12 x 1, 5-pin, a-coded
Nominal voltage	24 V DC (-15%/+20%)
Distributed clocks	no
Current consumption from U _s	120 mA
Power supply connection	feed: 1 x M8 male socket, 4-pin, a-coded; downstream connection: 1 x M8 female socket, 4-pin, a-coded
Electrical isolation	500 V
Weight	approx. 200 g
Operating temperature	-25...+60°C
Storage temperature	-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. rating/installation pos.	IP65/66/67 (conforms to EN 60529)/variable
Approvals/markings	CE, UL

Housing data	8 x M8, 4 x M12, ID switch
Dimensions (W x H x D)	30 mm x 155 mm x 26.5 mm

Material	PA6 (polyamide)
Installation	2 fixing holes 3.5 mm diameter for M3
