



Signal converter IO222 and IO222/CO Incremental → IO – Link (V1.1)

Product Features:

- 1x incremental input for "A/Bx90" signals or 2x incremental inputs for individual tracks (A and B channel)
- Universal incremental inputs (HTL/TTL/RS422) for NPN/PNP/NAMUR encoders and sensors
- Operating modes as frequency converter or position converter (pulse counter) possible
- Useful functions such as links (e.g. A+B), filters, round-loop function, ... can be activated
- Wire break monitoring for differential input signals
- Simple device parameterization possible via IO-Link using various engineering tools
- Adjustable limit value monitoring possible
- Numerous connection options via expansion option (IO222/CO) (three additional control inputs and two additional control outputs)
- Generation of pending events (z.B. Oberer Grenzwert überschritten, Encoder Error, ...) möglich
- Auxiliary voltage output 5 and 24VDC for encoder supply
- Compact rail housing to EN60715

Available Options:

IO222:	Basic device with incremental input and auxiliary voltage output
IO222/CO:	Basic device with incremental input, auxiliary voltage output, 3x HTL PNP control inputs and 2x PNP control outputs

Technical Specifications:		
Connections:	Connector type:	screw terminal, 1,5 mm ² / AWG 16
Power Supply:	Input voltage: Protection circuit: Consumption:	24 VDC (18 ... 30 VDC) through IO-Link reverse polarity protection approx. 75 mA (unloaded)
Encoder supply:	Output voltage: Output current:	5 VDC and 24 VDC (approx. 1 V lower than the power supply) max. 250 mA IO Link Masterport: min. 200mA Device supply: - 75 mA = 125 mA
Incremental inputs:	Number of inputs: Channels: Configuration: RS422: HTL differential: HTL Single Ended: TTL: Frequency measurement accuracy:	2 A, B (HTL Single Ended, TTL Single Ended) A, /A, B, /B (RS422, HTL differential) RS-422, HTL differential, HTL Single Ended, TTL max. 1 MHz (RS-422 differential signal > 0.5 V) max. 1 MHz (HTL differential signal > 1 V) max. 350kHz, (Low: 0 ... 5V, High: 9 ... 30 V) max. 350kHz, (Low: 0 ... 0.6V, High: 2.2 ... 5V +/- 50 ppm
Control inputs: (option "CO")	Number of inputs: Format: Frequency: Reaction Time: Transmission time (IO Link): Load:	3 HTL, PNP (Low: 0 ... 3 V, High: 9 ... 30 V) max. 1 kHz approx. 1ms every 2 ms - (Cycle Time IO Link) max. 2 mA at 24VDC
Control outputs: (with option "CO")	Number of outputs: Format: Output current: Reaction time: Transmission time (IO Link):	2 5 ... 30 V (depends on the Com+ voltage), PNP max. 100 mA each output (with external Com+ supply!) min. 1 ms (depending on "Sampling Time (s)" setting etc.) every 2 ms - (Cycle Time IO Link)
IO-Link:	Module / Specification: Bit rate: Port Class: Cycle time: Data width:	Device / IO Link V1.1 COM 3 (230,4 kBit / s) Typ A min. 2ms 15 Byte (3 x 4 Byte (input data) + 1 Byte ("CO" Status) + 2 Byte (diagnosis data)
Indicators:	Number of indicators: Function:	1 LED 1 x green for "ready for operate" state or actual "IO Link state" (with option "CO")
Housing:	Material: Mounting: Dimensions (B x H x T): (without connectors) Dimensions (B x H x T): (inclusive connectors) Weight: Protection:	Plastic 35 mm top hat rail (according to EN 60715) 34 x 100 x 131 mm / 1.34 x 3.94 x 5.16 inches 34 x 109 x 140 mm / 1.34 x 4.65 x 5.51 inches approx. 160 g IP20
Ambient temperature:	Operation: Storage:	-20 °C ... +60 °C resp. -4 °F ... + 140 °F not condensing -25 °C ... +70°C resp. -13 °F ... + 158 °F
Ambient conditions:	Altitude: Humidity: Degree of pollution:	max. 2000 meter above sea level max. 80% relative humidity to 30 °C / 86 °F 2
Failure rate::	MTBF in years: (continuous operation at 60 °C)	IO222: 96,0 a IO222/CO: 87,4 a
Conformity and standards:	EMC 2014/30/EU: RoHS (II) 2011/65/EU RoHS (III) 2015/863:	EN 61326-1: 2013 for industrial location EN 55011: 2016 + A1: 2017 + A11: 2020 Class A EN IEC 63000: 2018