



## touchMATRIX<sup>®</sup> IO-Link Process Indicator

Process indicator with two 16 bit analog inputs, touchscreen and graphic display

### Product Features:

- Decentralized display with IO-Link Device V1.1
- Data transfer via COM3 (230.4 kBaud)
- Cycle time <3 msec.
- Representation of two process data (process OUT)
- Calculation and transmission of 6 process data (process IN)
- 2 high-precision 16-bit analog inputs for  $\pm 10\text{ V} / 0 \dots 10\text{ V} / 0/4 \dots 20\text{ mA}$
- Arbitrarily combinable output configuration with analog output, switching outputs, relays, serial interface (Modbus)
- Display of plain text, symbols and units

### Available Options:

**AX350:** Basic unit with 2 analog inputs (16 Bit), 3 control inputs

- Option **AC:** Power supply 115...230 VAC
- Option **AO:** 16 bit analog output, 4 control outputs, serial RS232 interface
- Option **AR:** 16 bit analog output, 4 control outputs, serial RS485 interface
- Option **CO:** 4 control outputs, serial RS232 interface
- Option **CR:** 4 control outputs, serial RS485 interface
- Option **RL:** 2 relay outputs

**All options can be combined**

Technical Specifications:		
<b>Connections:</b>	Connector type:	screw terminal, 1.5 mm <sup>2</sup> / AWG 16
<b>Power supply (DC):</b>	Input voltage:	18 ... 30 VDC
	Protection circuit:	reverse polarity protection
	Consumption:	approx. 100 mA (unloaded)
	Fuse protection:	extern: T 0.5 A
<b>Power supply (AC):</b> (Option AC)	Input voltage:	115 ... 230 VAC, 50 ... 60 Hz)
	Power consumption:	approx. 3 VA (unloaded)
	Fuse protection:	extern: T 1.0 A
<b>Encoder supply:</b>	DC version:	approx. 1 V lower than the power supply voltage
	Output current:	max. 250 mA
	AC version (AC350):	approx. 24 V (± 15%)
	Output current:	150 mA until 45°C / 80 mA by more than 45°C
<b>Reference output:</b>	Output voltage:	10 V
	Accuracy:	± 0.1 %
	Load:	max. 10 mA / $\geq 1$ kOhm
<b>Analog inputs:</b>	Number of inputs:	2
	Configuration:	current or voltage operation
	Voltage input:	-10 ... +10 V (Ri ≈ 50 kOhm)
	Current input:	0 ... 20 mA / 4 ... 20 mA (Ri ≈ 100 Ohm)
	Resolution / Accuracy:	16 bit / ± 0,1 %
<b>Control inputs:</b>	Number of inputs:	3
	Format:	HTL, PNP (Low 0 ... 3 V, High 9 ... 30 V)
	Frequency:	max. 10 kHz
	Load:	max. 2 mA / Ri > 15 kOhm / 470 pF
<b>Analog output:</b> (Option AO/AR)	Configuration:	current or voltage operation
	Voltage output:	-10 ... +10 V (max. 2 mA)
	Current output:	0/4 ... 20 mA (burden: max. 270 Ohm)
	Resolution / Accuracy:	16 Bit 7 ± 0,1 %
	Reaction time:	< 150 ms
<b>Control outputs:</b> (Option AO/AR/CO/CR)	Number of outputs:	4
	Format / level:	5 ... 30 V (depends on the Com+ voltage), PNP
	Output current:	max. 200 mA
	Reaction time:	< 1 ms
<b>Relay outputs:</b> (Option RL)	Number of outputs:	2
	Configuration:	potential free changeovers
	AC-Switching capacity: :	max. 250 VAC / 3 A / 750 VA
	DC-Switching capacity:	max. 150 VDC / 2 A / 50 W
	Reaction time:	< 20 ms
<b>Serial interface:</b> (Option AO/AR/CO/CR)	Format (Option AO/CO):	RS232
	Format (Option AR/CR):	RS485
	Baudrate:	9600, 19200 or 38400 baud
<b>IO-Link:</b>	Module / Revision:	Device / V1.1
	Bitrate:	COM 3
	Port Class:	Typ A
<b>Display:</b>	Type:	Graphic LCD with backlight
	Display range:	8 digits plus sign (-99999999 ... 99999999)
	Digit height:	13 mm
	Color:	red/ green / yellow (switchable)
	Operation:	resistive touchscreen
<b>Housing:</b>	Material:	ABS, UL 94 V-0
	Mounting:	panel
	Dimensions (w x h x d):	96 x 48 x 116 mm / 3.78 x 1.89 x 4.56 inch
	Cut out (w x h):	91 x 43 mm / 3.58 x 1.69 inch
	Protection class:	IP65 (front), IP20 (rear)
	Weight:	approx. 200 g
<b>Ambient temperature:</b>	Operation:	-20 °C ... +60 °C resp. -4 ... 140 °F
	Storage:	-25 °C ... +70 °C resp. -13 ... 158 °F
<b>Conformity and standards:</b>	EMC 2014/30/EU:	EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61326-1
	LV 2014/35/EU:	EN 61010-1
	(Only for option AC and RL)	
	RoHS ( II ) 2011/65/EU	
	RoHS (III) 2015/863:	EN IEC 63000