



## touchMATRIX® 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 <3msec.
- 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...230VAC
- 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:                 |                                                                                                                      |                                                                                                                                                 |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Connections:                              | Connector type:                                                                                                      | screw terminal, 1.5 mm <sup>2</sup> / AWG 16                                                                                                    |
| Power supply (DC):                        | Input voltage:<br>Protection circuit:<br>Consumption:<br>Fuse protection:                                            | 18 ... 30 VDC<br>reverse polarity protection<br>approx. 100 mA (unloaded)<br>extern: T 0.5 A                                                    |
| Power supply (AC):<br>(Option AC)         | Input voltage:<br>Power consumption:<br>Fuse protection:                                                             | 115...230 VAC, 50...60 Hz<br>approx. 3VA (unloaded)<br>extern: T 1.0 A                                                                          |
| Encoder supply:                           | DC version:<br>Output current:                                                                                       | approx. 1 V lower than the power supply voltage<br>max. 250 mA                                                                                  |
|                                           | AC version (AC350):<br>Output current:                                                                               | approx. 24 V (± 15%)<br>150 mA until 45 °C / 80 mA by more than 45 °C                                                                           |
| Reference output:                         | Output voltage:<br>Accuracy:<br>Load:                                                                                | 10 V<br>± 0.1 %<br>max. 10 mA / / ≥ 1 kOhm                                                                                                      |
| Analog inputs:                            | Number of inputs:<br>Configuration:<br>Voltage input:<br>Current input:<br>Resolution / Accuracy:                    | 2<br>current or voltage operation<br>-10...+10V (Ri ≈ 50kOhm)<br>0 ... 20 mA / 4 ... 20 mA (Ri ≈ 100 Ohm)<br>16 bit / ± 0,1 %                   |
| Control inputs:                           | Number of inputs:<br>Format:<br>Frequency:<br>Load:                                                                  | 3<br>HTL, PNP (Low 0 ... 3 V, High 9 ... 30 V)<br>max. 10 kHz<br>max. 2 mA / Ri > 15 kOhm / 470 pF                                              |
| Analog output:<br>(Option AO/AR)          | Configuration:<br>Voltage output:<br>Current output:<br>Resolution / Accuracy:<br>Reaction time:                     | current or voltage operation<br>-10...+10 V (max. 2 mA)<br>0/4...20 mA (burden: max. 270 Ohm)<br>16 Bit 7 ± 0,1 %<br>< 150 ms                   |
| Control outputs:<br>(Option AO/AR/CO/CR)  | Number of outputs:<br>Format / level:<br>Output current:<br>Reaction time:                                           | 4<br>5...30V (depends on the Com+ voltage), PNP<br>max. 200 mA<br>< 1 ms                                                                        |
| Relay outputs:<br>(Option RL)             | Number of outputs:<br>Configuration:<br>AC-Switching capacity: :<br>DC-Switching capacity:<br>Reaction time:         | 2<br>potential free changeovers<br>max. 250 VAC / 3 A / 750 VA<br>max. 150 VDC / 2 A / 50 W<br>< 20 ms                                          |
| Serial interface:<br>(Option AO/AR/CO/CR) | Format (Option AO/CO):<br>Format (Option AR/CR):<br>Baudrate:                                                        | RS232<br>RS485<br>9600, 19200 or 38400 baud                                                                                                     |
| IO-Link:                                  | Module / Revision:<br>Bitrate:<br>Port Class:                                                                        | Device / V1.1<br>COM 3<br>Typ A                                                                                                                 |
| Display:                                  | Type:<br>Display range:<br>Digit height:<br>Color:<br>Operation:                                                     | Graphic LCD with backlight<br>8 digits plus sign (-99999999 ... 99999999)<br>13 mm<br>red/ green / yellow (switchable)<br>resistive touchscreen |
| Housing:                                  | Material:<br>Mounting:<br>Dimensions (w x h x d):<br>Cut out (w x h):<br>Protection class:<br>Weight:                | ABS, UL 94 V-0<br>panel<br>96 x 48 x 116 mm / 3.78 x 1.89 x 4.56 inch<br>91x43mm / 3.58x1.69inch<br>IP65 (front), IP20 (rear)<br>approx. 200 g  |
| Ambient temperature:                      | Operation:<br>Storage:                                                                                               | -20 °C...+60 °C resp. -4...140 °F<br>-25 °C...+70 °C resp. -13...158 °F                                                                         |
| Conformity and standards:                 | EMC 2014/30/EU:<br>LV 2014/35/EU:<br>(Only for option AC and RL)<br>RoHS ( II ) 2011/65/EU<br>RoHS ( III ) 2015/863: | EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61326-1<br>EN 61010-1<br><br>EN IEC 63000                                                          |