



touchMATRIX[®] Indicator DX350 / DX355

Pulse counter, tachometer and speed indicator with touchscreen and graphic display

Product Features:

- Multifunctional unit with several operating modes, e. g. speed or position indicator, counter, flow time indicator, timer, stopwatch or process indicator
- Universal inputs (HTL/RS422) for encoders / sensors with NPN / PNP / NAMUR characteristic
- Bright and high-contrast display with event-dependent color variations
- Emulation of a 7-segment display inclusively icons and units
- Intuitive and easy parameterization by plain text and touchscreen
- 5 /24 V auxiliary output for encoder supply
- Input frequencies up to 1 MHz
- Linearization with 24 control points
- Numerous features, e. g. scaling, filtering, start-up suppression
- 3.78 x 1.89 inch (96 x 48 mm) norm panel housing and IP65 protection

Available Options:

DX350: Basic unit with HTL inputs (A, B), 3 control inputs
DX355: Basic unit with HTL / RS422 inputs (A, /A, B, /B), 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

Options can be combined

Technical Specifications:		
Connections:	Connector type:	screw terminal, 1.5 mm ² / AWG 16
Power supply DC:	Input voltage: Protection circuit: Consumption: Fuse protection:	18 ... 30 VDC reverse polarity protection approx. 100 mA (unloaded) extern: T 0.5 A
Power supply AC: (Option AC)	Input voltage: Power consumption: Fuse protection:	115 ... 230 VAC ± 10%, 50 ... 60 Hz approx. 3 VA (unloaded) extern: T 1.0 A
Encoder supply:	DC version: AC version:	24 VDC (approx. 1 V lower than the power supply voltage), max 250 mA 24 VDC (± 15%) (max 150 mA until 45°C resp. 113°F / 80 mA by more than 45°C resp. 113°F)
Encoder supply: (DX355)	DC version: AC version:	24 VDC (approx. 1 V lower than the power supply voltage), max 250 mA or 5 VDC (± 15%), max. 250 mA 24 VDC (± 15%) (max 150 mA until 45°C resp. 113°F / 80 mA by more than 45°C resp. 113°F) or 5 VDC (± 15%), max. 250 mA)
Incremental inputs:	Number of inputs (channels): Configuration: Format: Frequency:	2 (A, B) PNP, NPN, Namur or Tri-State HTL (Low 0 ... 3 V, High 9 ... 30 V) max. 250 kHz
Incremental inputs: (DX355)	Number of inputs (channels): Configuration: RS422: HTL differential HTL PNP / NPN:	2 with inverted signal (A, /A, B, /B) RS422, HTL differential, HTL PNP or HTL NPN max. 1 MHz (RS422 differential signal > 0,5 V) max. 1 MHz (HTL differential signal > 2 V) max. 350 kHz (Low 0 ... 5 V, High 9 ... 30 V)
Control inputs:	Number of inputs: Format: Frequency: Reaction time: Load:	3 HTL, PNP (Low 0 ... 3 V, High 9 ... 30 V) max. 1 kHz 1 ms max. 2 mA at 24 VDC
Accuracy:	Measurement:	+/- 50 ppm, +/- 1 digit
Analog output: (Option AO/AR)	Configuration: Voltage output: Current output: Resolution: Accuracy: Reaction time:	current or voltage operation -10 ... +10 V (max. 2 mA) 0/4 ... 20 mA (burden: max. 270 Ohm) 16 Bit ± 0,1 % 0°C ... +45°C / ± 0,1 % +32°F ... +113°F ± 0,15 % -20°C ... 0°C und +45°C ... +60°C / ± 0,15 % -4°F ... +32°F and +113°F ... +140°F < 10 ms (as of software version DX35006G)
Control outputs: (Option AO/AR/CO/CR)	Number of outputs: Format / level: Output current: Reaction time:	4 5 ... 30 V (depend on the COM+ voltage), PNP max. 200 mA < 1 ms
Relay outputs: (Option RL)	Number of outputs: Configuration: AC-Switching capacity: DC-Switching capacity Reaction time:	2 potential free changeovers max. 250 VAC / 3 A / 750 VA max. 50 VDC / 1 A / 50 W < 20 ms
Serial interface: (Option AO/AR/CO/CR)	Format (Option AO/CO): Format (Option AR/CR) Baud rate:	RS232 RS485 9600, 19200 or 38400 baud
Display:	Type: Display range: Digit height (single + dual): Digit height (large display): Color: Operation:	Graphic LCD with backlight 8 digits plus sign (-99999999 ... 99999999) 13 mm (0,51 inch) 26 mm (1,02 inch) red / green / yellow (selectable) resistive touchscreen
Housing:	Material: Mounting: Dimensions (w x h x d): Cut out (w x h): Protection class: Weight:	ABS, UL 94 V-0 panel 96 x 48 x 116 mm / 3.78 x 1.89 x 4.56 inch 91 x 43 mm / 3.58 x 1.69 inch IP65 (front), IP20 (rear) approx. 200 g
Ambient temperature:	Operation Storage:	-20°C ... +60°C / -4 ... 140°F, non-condensing -25°C ... +70°C / -13 ... 158°F
Ambient conditions:	Altitude: Humidity: Pollution Degree:	max. 2000 m (6560 ft) above sea level max. 80% relative humidity up to 30°C / 86°F 2
Conformity and standards:	EMC 2014/30/EU: LV 2014/35/EU: (Only for option AC and RL) RoHS (II) 2011/65/EU RoHS (III) 2015/863:	EN 61326-1: 2021 for industrial location EN 55011: 2016 + A1: 2017 + A11: 2020 + A2 : 2021 Class A EN 61010-1: 2010 + A1:2019 + AC: 2019-04 EN IEC 61010-2-201: 2018 EN IEC 63000: 2018