



## touchMATRIX<sup>®</sup> Indicator DP350

Display with Start-Stop-Interface for transsonar measurement with absolute and magnetostrictive position encoders, with touchscreen and graphic display

### Product features:

- For absolute and magnetostrictive position encoder with Start-Stop-Interface
- 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 V / 24 V auxiliary output for encoder supply
- Linearization with 24 control points
- Numerous features, e. g. scaling, filter, zero offset and counting direction etc.
- 3.78 x 1.89 inch norm panel housing and IP65 protection

### Available options:

**DP350:** Basic unit with Start-Stop-Interface, 3 control inputs, 5V/24 VDC encoder supply

- 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: Protection circuit: Consumption: Fuse protection:	18 ... 30 VDC reverse polarity protection approx. 100 mA (unloaded) extern: T 0.5 A
<b>Power supply (AC):</b> (Option AC)	Input voltage: Power consumption: Fuse protection:	115...230 VAC ± 10%, 50...60 Hz approx. 3 VA (unloaded) extern: T 0.1 A
<b>Encoder supply:</b>	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 / 80 mA by more than 45°C) or 5 VDC (± 15%), max. 250 mA)
<b>P interface:</b>	RS485 input: RS485 output: Pulse width init-pulse: Frequency init-pulse:	1 (Start_Stop, /Start_Stop) 1 (Init, /Init) ~2 µs 62,5 Hz - 5000 Hz (adjustable)
<b>Control inputs:</b>	Number of inputs: Format: Frequency: Load:	3 HTL, PNP (Low 0 ... 3 V, High 9 ... 30 V) Max. 10 kHz Max. 2 mA / Ri > 15 kOhm / 470 pF
<b>Analog output:</b> (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 ± 0,15 % -20°C ... 0°C und +45°C ... +60°C  < 150 ms
<b>Control outputs:</b> (Option AO/AR/CO/CR)	Number of outputs: Format / level: Output current: Reaction time:	4 5 ... 30 V (depends on the Com+ voltage), PNP Max. 200 mA < 1 ms
<b>Relay outputs:</b> (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. 150 VDC / 2 A / 50 W < 20 ms
<b>Serial interface:</b> (Option AO/AR/CO/CR)	Format (Option AO/CO): Format (Option AR/CR) Baud rate:	RS232 RS485 9600, 19200 or 38400 baud
<b>Display:</b>	Type: Display range:  Digit height Color: Operation:	LCD (backlight) 8 digits plus sign (-99999999 ... 99999999) 13 mm height red / green / yellow (switchable) resistive touchscreen
<b>Housing:</b>	Material: Mounting: Dimensions (w x h x d):  Cut out (w x h): Protection class: Weight:	ABS, UL 94 V-0 panel cut out 96 x 48 x 116 mm / 3.78 x 1.89 x 4,56 inch 91 x 44 mm / 3.58 x 1.69 inch IP65 (front), IP20 (rear) approx. 200 g
<b>Ambient temperature:</b>	Operation: Storage:	-20 °C ... +60 °C resp. -4 ... 140 °F non-condensing -25 °C ... +70 °C resp. -13 ... 158 °F
<b>Ambient conditions:</b>	Altitude: Humidity: Pollution Degree:	max. 2000 m (6560 ft) above sea level max. 80% relative humidity up to 30°C 2
<b>Conformity and standards:</b>	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: 2013 for industrial location EN 55011: 2016 + A1: 2017 + A11: 2020 Class A EN 61010-1: 2010 + A1: 2019 + AC: 2019-04 EN IEC 61010-2-201: 2018  EN IEC 63000: 2018