



Ether**CAT**<sup>®</sup> 

## touchMATRIX<sup>®</sup> Indicator EC350 EtherCAT<sup>®</sup> display device with touch screen and graphic display

### Product features:

- Multi-function display with EtherCAT<sup>®</sup> interface
- Operating modes for displaying two process values and links of the two values (1+2, 1-2, 1x2, 1:2)
- 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 touch screen
- 3.78 x 1.89 inch (96 x 48 mm) norm panel housing and IP65 protection
- Optional switching outputs

### Available options:

**EC350:** Basic unit with EtherCAT<sup>®</sup>-interface

- 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

EtherCAT<sup>®</sup> is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

Technical Specification:		
<b>Connection:</b>	Connection type:	Screw terminals, 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 ca. 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 ca. 3 VA (unloaded) extern: T 0,1A
<b>Auxiliary voltage output:</b>	With DC supply:  With AC supply:	24 VDC (approx. 1 V lower than input voltage), max. 250 mA or 5 VDC (± 15%), max. 250 mA 24 VDC (± 15%) (max. 150 mA up to 45°C resp. 113°F/ 80 mA from 45°C resp. 113°F) or 5 VDC (± 15%), max. 250 mA
<b>EtherCAT® interface:</b>	Connection:  Data transfer rate: Communication:	2 Ethernet Ports RJ45 with galvanic isolation (1 ECAT IN / 1 ECAT OUT) 100 Mbit/s full duplex EtherCAT® Sub Device with CoE (CANopen over EtherCAT®) 1 Receive Process Data Object (TxPDO) and 1 Transmit Process Data Object (RxPDO) with fixed mapping
<b>Control inputs:</b>	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 24VDC
<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 / ± 0,1 % +32°F ... +113°F ± 0,15 % -20°C ... 0°C and +45°C ... +60°C / ± 0,15 % -4°F ... +32°F and +113°F ... +140°F approx. 50 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 approx. 50 ms
<b>Relay outputs:</b> (Option RL)	Number of outputs: Configuration: AC-Switching capacity: DC-Switching capacity: Reaction time:	2 COM, NO, NC (potential free) max. 250 VAC / 3 A / 750 VA max. 150 VDC / 2 A / 50 W approx. 50 ms
<b>Serial interface:</b> (Option AO/AR/CO/CR)	Format (Option AO/CO): Format (Option AR/CR) Baud rate: Protocol:	RS232 RS485 9600, 19200 or 38400 Baud Lecom or Modbus RTU
<b>Display:</b>	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 (switchable) touch screen (resistive)
<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 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
<b>Ambient temperature:</b>	Operating: 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 / 86°F 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