

# Product data sheet

Specifications



## Modicon Quantum - high-speed counter module - 8 I - 100000 Hz

140EHC10500

! To be discontinued on: 31 December 2022

! To be end-of-service on: 31 December 2030

! To be discontinued

### Main

Range of product	Modicon Quantum automation platform
Product or component type	High-speed counter module
Number of channels	5

### Complementary

Number of inputs	8
Addressing requirement	12 output words 12 input words
Data format	2147483647 dec 32 bits 65535 dec 16 bits
Counting input voltage	30 V DC max
Counting input current	7 mA
Counting input type	Discrete incremental counter
Counting frequency	100000 Hz
Duty cycle	1/1 counter input
Discrete input current	5 mA
Operating threshold	15...30 V single ended mode 24 V REF DC at state on 3...5 V single ended mode 24 V REF DC at state off
Discrete output number	8
Discrete output type	Field Effect Transistor (FET)
Discrete output voltage	0 V switch off DC 20...30 V switch on DC
Load current	0.21 A
Maximum leakage current	0.1 mA state off
Maximum voltage drop	<1.25 V state on
Isolation between channels and bus	500 Vrms for 60 s
Fault type	Loss of output field power
Output short-circuit protection	Internal
Power dissipation	>= 6 W
Bus current requirement	250 mA

<b>External power requirement</b>	19.2...30 V
<b>Rack type</b>	Local Distributed Remote
<b>Local signalling</b>	5 LEDs for channel status
<b>Marking</b>	CE
<b>Current consumption</b>	<= 1140 mA at 24 V DC external power supply
<b>Module format</b>	Standard

## Environment

<b>Resistance to electrostatic discharge</b>	4 kV contact conforming to IEC 801-2 8 kV on air conforming to IEC 801-2
<b>Resistance to electromagnetic fields</b>	10 V/m 80...1000 MHz conforming to IEC 801-3
<b>Ambient air temperature for operation</b>	0...60 °C
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Relative humidity</b>	95 % without condensation
<b>Operating altitude</b>	<= 5000 m
<b>Standards</b>	UL 508
<b>Product certifications</b>	RINA UL GOST LR CSA Class 1 Division 2 RRS ABS GL DNV C-Tick

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	520 g
<b>Package 1 Height</b>	4.6 cm
<b>Package 1 width</b>	16 cm
<b>Package 1 Length</b>	31 cm
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	7
<b>Package 2 Weight</b>	4.081 kg
<b>Package 2 Height</b>	30 cm
<b>Package 2 width</b>	30 cm
<b>Package 2 Length</b>	40 cm

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>

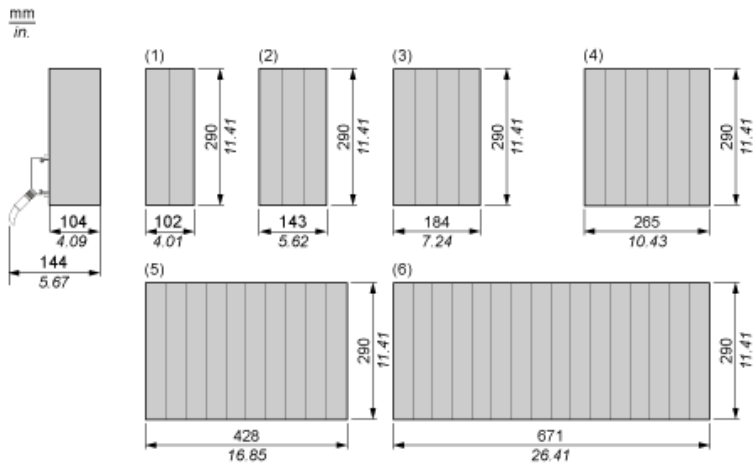
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>California proposition 65</b>	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## Contractual warranty

<b>Warranty</b>	18 months
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**Racks for Modules Mounting**

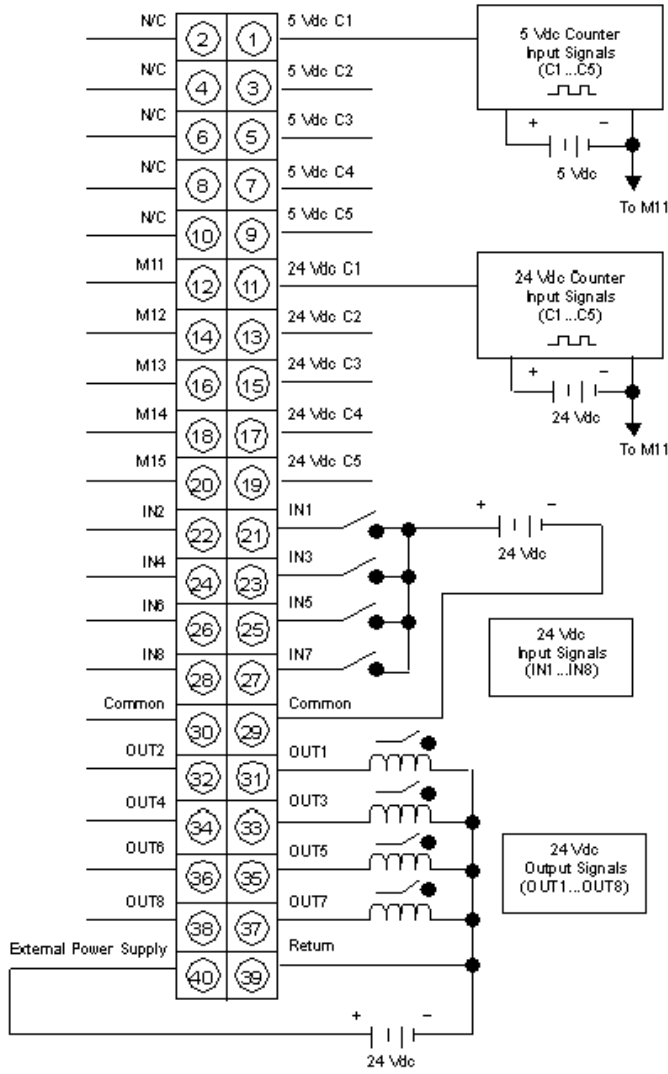
**Dimensions of Modules and Racks**



- (1) 2 slots
- (2) 3 slots
- (3) 4 slots
- (4) 6 slots
- (5) 10 slots
- (6) 16 slots

**Five-Channel Discrete High Speed Counter**


**Wiring Diagram**



**N/C** Not Connected  
Terminals 29 and 30 are jumpered together.

**Recommended replacement(s)**

140EHC10500 is replaced by:

- 1x  Counter module, Modicon M340 automation platform, high speed 8 channels  
BMXEHC0800