

# TSXCTY4A

4 channels counter modules - 40 kHz - 36 mA at 24 V DC, 330 mA at 5 V DC

Product availability : Stock - Normally stocked in distribution facility

Price\* : 3567.30 USD



## Main

Range of product	Modicon Premium Automation platform
Product or component type	Counter modules
I/O modularity	4 channels
Electrical circuit type	Auxiliary output conforming to EN/IEC 61131

## Complementary

Counting frequency	40 kHz
Power dissipation in W	8...11.5 W
Cycle time	10 ms
Discrete input logic	Current sink auxiliary input (preset, enable and read) conforming to IEC 1131 Type 2 Resistive 2/3-wire proximity sensors PNP/NPN conforming to IEC 1131 Type 2 Resistive encoder input
Input logic	Positive
Input compatibility	Incremental encoder 10...30 V totem pole Incremental encoder 5 V DC RS422
Input voltage	24 V 18 mA 2/3-wire proximity sensors PNP/NPN 24 V 7 mA auxiliary input (preset, enable and read) 5 V 18 mA encoder input
Input voltage limits	<= 5.5 V encoder input 19...30 V 2/3-wire proximity sensors PNP/NPN 19...30 V auxiliary input (preset, enable and read)
Voltage state 1 guaranteed	>= 11 V 2/3-wire proximity sensors PNP/NPN >= 11 V auxiliary input (preset, enable and read) >= 2.4 V encoder input
Current state 1 guaranteed	>= 3.7 mA encoder input >= 6 mA 2/3-wire proximity sensors PNP/NPN >= 6 mA auxiliary input (preset, enable and read)
Voltage state 0 guaranteed	<= 1.2 V encoder input <= 5 V 2/3-wire proximity sensors PNP/NPN <= 5 V auxiliary input (preset, enable and read)

Current state 0 guaranteed	<= 1 mA encoder input <= 2 mA 2/3-wire proximity sensors PNP/NPN <= 2 mA auxiliary input (preset, enable and read)
Response time	< 2.5 ms sensor voltage at loss of 24 V auxiliary input (preset, enable and read)
Input impedance	> 270 Ohm at U = 2.4 V encoder input 1400 Ohm at Un 2/3-wire proximity sensors PNP/NPN 3400 Ohm at Un auxiliary input (preset, enable and read) 400 Ohm at Un encoder input
Output voltage	24 V DC
Nominal output current	0.5 A
Output voltage limits	19...30 V
Voltage drop	< 0.5 V at state 1
Output compatibility	Positive logic DC inputs (resistance <= 15 kOhm) auxiliary output
Leakage current	< 0.1 mA
Switching frequency	< 0.6/LI <sup>2</sup> Hz on inductive load
Output overload protection	Current limiter Thermal tripping via program or automatically
Output short-circuit protection	Current limiter Thermal tripping via program or automatically
Output overvoltage protection	Zener diode
Reverse polarity protection	Reverse diode on supply
Checks	Sensor power supply
Current consumption	330 mA 5 V DC 36 mA 24 V DC
Module format	Standard
Local signalling	4 LEDs green axis diagnostics available (CH.) 1 LED green module operating (RUN) 1 LED red external fault (I/O) 1 LED red internal fault, module failure (ERR)
Electrical connection	2 connectors HE-10 20 pins 4 connectors SUB-D 15
Product weight	0.95 lb(US) (0.43 kg)

## Environment

Protective treatment	TC
Ambient air temperature for operation	32...140 °F (0...60 °C)
Ambient air temperature for storage	-13...158 °F (-25...70 °C)
Relative humidity	5...95 % without condensation
Operating altitude	<= 6561.68 ft (2000 m)

## Ordering and shipping details

Category	22558 - TSX PREMIUM, ATRIUM & PL7 PRO
Discount Schedule	PC22
GTIN	00785901756989
Nbr. of units in pkg.	1
Package weight(Lbs)	2.21
Returnability	N
Country of origin	FR

## Offer Sustainability

Sustainable offer status	Not Green Premium product
RoHS (date code: YYWW)	Compliant - since 0849 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold <a href="#">Reference not containing SVHC above the threshold</a>

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Product end of life instructions	Need no specific recycling operations
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### Contractual warranty

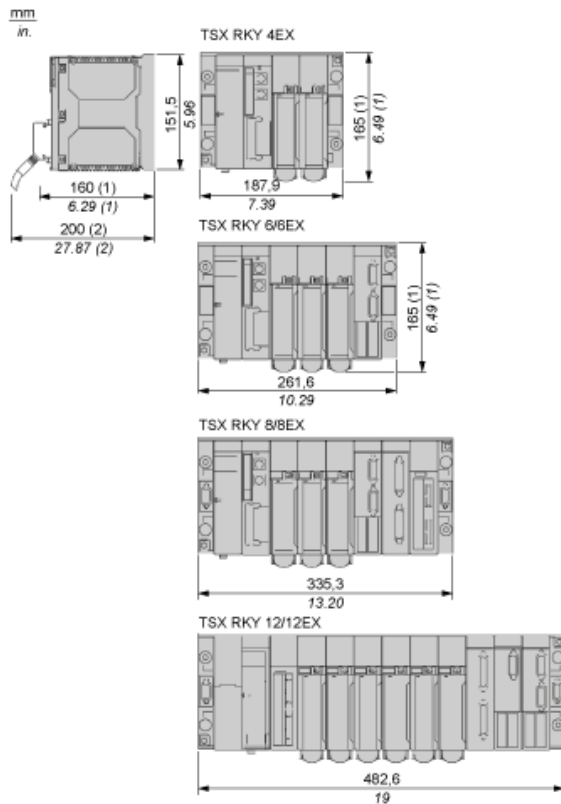
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Warranty period	18 months
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## Standard and Extendable Racks for Modules Mounting

### Dimensions of Modules and Racks



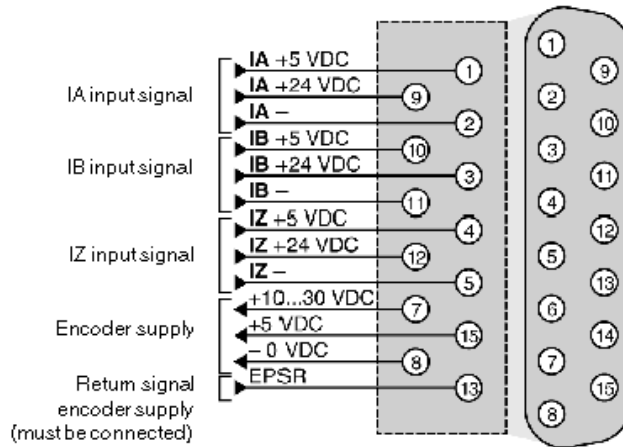
(1) With screw terminal block modules.

(2) Maximum depth for all types of modules and their associated connectors.

15-pin SUB-D Connectors of the Counting Module

Pinout Configuration

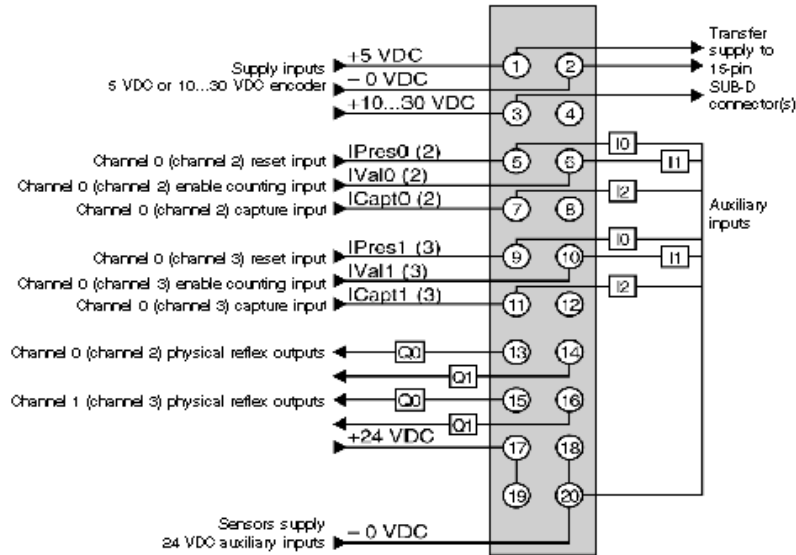
Standard 15-pin SUB-D connector for connecting the counting sensor to channels 0, 1, 2 or 3



5 Vdc signal	Pins
+ IA input	1
- IA input	2
+ IB input	10
- IB input	11
+ IZ input	4
- IZ input	5
Encoder power supply:	
+5 Vdc	15
-0 Vdc	8
Encoder power supply feedback	13
10...30 Vdc signals	Pins
+ IA input	9
- IA input	2
+ IB input	3
- IB input	11
+ IZ input	12
- IZ input	5
Encoder power supply:	
+10...30 Vdc	7
-0 Vdc	8
Encoder power supply feedback	13

HE10 20-pin Connector of the Counting Module

Wiring Diagram



24 Vdc signals	Pins
Channel 0 (channel 2) auxiliary input:	
Preset IPres0/2	5
Confirmation IVal0/2	6
Capture ICapt0/2	7
Channel 1 (channel 3) auxiliary input:	
Preset IPres1/3	9
Confirmation IVal1/3	10
Capture ICapt1/3	11
Channel 0 (channel 2) reflex output:	
Output Q0	13
Output Q1	14
Channel 1 reflex output:	
Output Q0	15
Output Q1	16
Power Supplies	
Encoder power supply:	
+5 Vdc	1
- 0 Vdc	2
+10...30 Vdc	3
Sensor power supply:	
+24 Vdc	17 or 19

Power Supplies	Pins
-0 Vdc	18 or 20