

TSXCTY4A

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

Product availability: Non-Stock - Not normally stocked in distribution facility

Price*: 3102.00 USD

Main

Commercial Status	Commercialised
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	Resistive encoder input Resistive 2/3-wire proximity sensors PNP/NPN conforming to IEC 1131 Type 2 Current sink auxiliary input (preset, enable and read) conforming to IEC 1131 Type 2
Input logic	Positive
Input compatibility	Incremental encoder 5 V DC RS422 Incremental encoder 10...30 V totem pole
Input voltage	5 V 18 mA encoder input 24 V 7 mA auxiliary input (preset, enable and read) 24 V 18 mA 2/3-wire proximity sensors PNP/NPN
Input voltage limits	19...30 V auxiliary input (preset, enable and read) 19...30 V 2/3-wire proximity sensors PNP/NPN <= 5.5 V encoder input
Voltage state1 guaranteed	>= 2.4 V encoder input >= 11 V auxiliary input (preset, enable and read) >= 11 V 2/3-wire proximity sensors PNP/NPN
Current state 1 guaranteed	> 6 mA auxiliary input (preset, enable and read) > 6 mA 2/3-wire proximity sensors PNP/NPN > 3.7 mA encoder input
Voltage state 0 guaranteed	<= 5 V auxiliary input (preset, enable and read) <= 5 V 2/3-wire proximity sensors PNP/NPN <= 1.2 V encoder input
Current state 0 guaranteed	< 2 mA auxiliary input (preset, enable and read) < 2 mA 2/3-wire proximity sensors PNP/NPN < 1 mA encoder input
Response time	< 2.5 ms sensor voltage at loss of 24 V auxiliary input (preset, enable and read)
Input impedance	400 Ohm at Un encoder input 3400 Ohm at Un auxiliary input (preset, enable and read) 1400 Ohm at Un 2/3-wire proximity sensors PNP/NPN > 270 Ohm at U = 2.4 V 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/LI² Hz on inductive load
Output overload protection	Thermal tripping via program or automatically Current limiter
Output short-circuit protection	Thermal tripping via program or automatically Current limiter
Output overvoltage protection	Zener diode
Reverse polarity protection	Reverse diode on supply
Checks	Sensor power supply
Current consumption	36 mA 24 V DC 330 mA 5 V DC
Module format	Standard
Local signalling	4 LEDs green axis diagnostics available (CH.) 1 LED red internal fault, module failure (ERR) 1 LED red external fault (I/O) 1 LED green module operating (RUN)
Electrical connection	4 connectors SUB-D 15 2 connectors HE-10 20 pins
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
Product availability	Non-Stock - Not normally stocked in distribution facility
Returnability	N
Country of origin	FR

Offer Sustainability

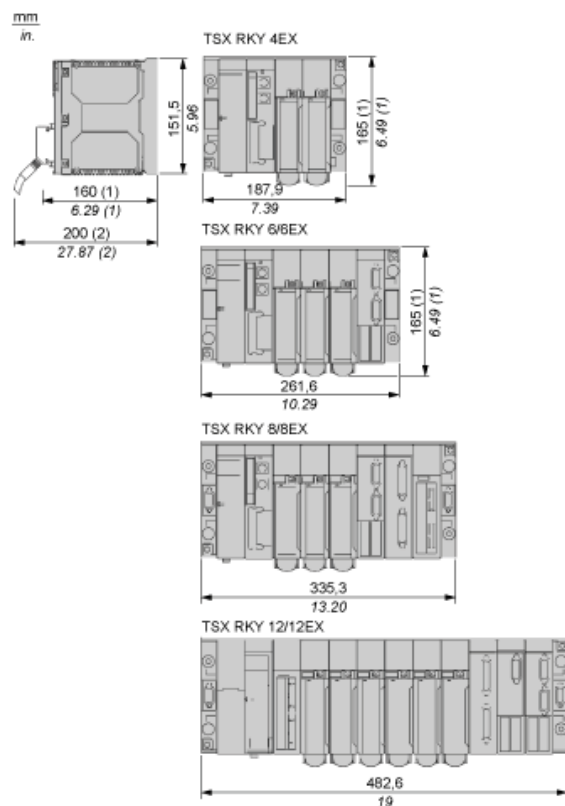
Sustainable offer status	Not Green Premium product
RoHS (date code: YYWW)	Compliant - since 0849 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product end of life instructions	Need no specific recycling operations

Contractual warranty

Warranty period	18 months
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Standard and Extendable Racks for Modules Mounting

Dimensions of Modules and Racks

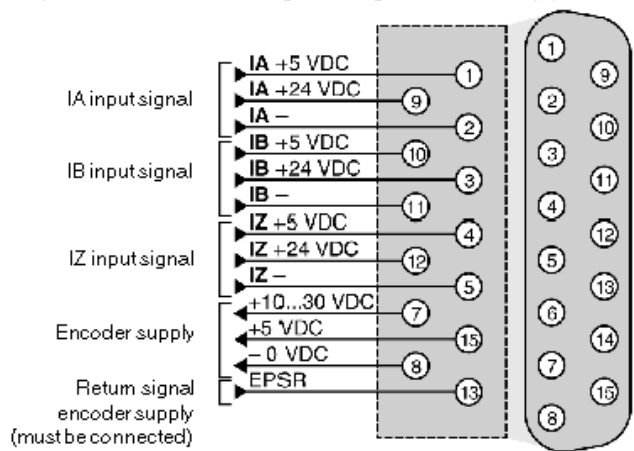


- (1) With screw terminal block modules.
(2) Maximum depth for all types of modules and their associated connectors.

15-pin SUB-D Connectors of the Counting Module

Pinout Configuration

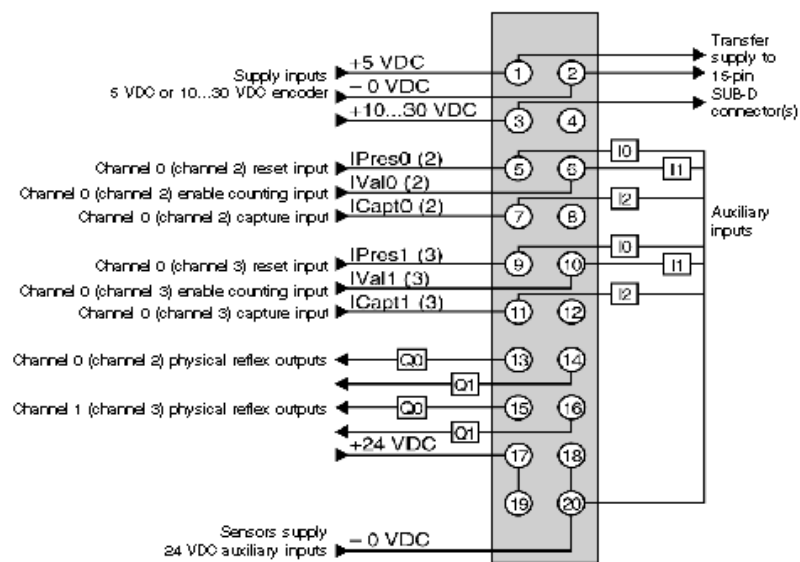
Standard 15-pin SUB-D connector for connecting the counting sensor to channels 0, 1, 2 or 3



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
-0 Vdc	18 or 20