



### Main

Range of Product	Modicon Premium Automation platform
Product or Component Type	Electronic cam module
Number of cams	128
Number of tracks	32
Function of module	Position, monostable, brake Switching feedforward Measurement capture Parts counter Elimination of axis backflash Generation of events Position recalibration
I/O modularity	1 axis
Electrical circuit type	Auxiliary input positive EN/IEC 61131 type 1 Incremental encoder with 10...30 V positive or negative Incremental encoder with RS422 differential

### Complementary

Clock frequency	200 kHz SSI absolute encoder
Incremental encoder frequency x1	500 kHz
Incremental encoder frequency x 4	250 kHz
Power dissipation in W	7 W
Maximum output refresh cycle	100 Ms 32 200 Ms 128 50 μs 16
Input compatibility	Absolute encoder parallel output ABE7CPA11 Absolute encoder SSI serial output Incremental encoder 10...30 V totem pole Incremental encoder 5 V DC RS422/485 line emitter
Input voltage	24 V encoder with 10...30 V 24 V auxiliary input
Input current	10 MA RS422 15.5 MA encoder with 10...30 V 8 mA auxiliary input
Input voltage limits	<= 5.5 V RS422 19...30 V encoder with 10...30 V 19...30 V auxiliary input
Voltage state 1 guaranteed	> 3 V RS422 >= 11 V encoder with 10...30 V >= 11 V auxiliary input
Current state 1 guaranteed	>= 5 mA encoder with 10...30 V) >= 5.8 mA RS422) >= 3 mA auxiliary input)
Voltage state 0 guaranteed	< 5 V encoder with 10...30 V <= -3 V RS422 < 5 V auxiliary input
Current state 0 guaranteed	<= 2 mA encoder with 10...30 V) <= -5.8 mA RS422) <= 1.5 mA auxiliary input)
Response time	< 100 μs auxiliary input
Input impedance	Encoder with 10...30 V 1500 Ohm for nominal U Auxiliary input 3000 Ohm for nominal U
Output type	Track output EN/IEC 61131-2
Output voltage	24 V DC
Nominal output current	0.5 A

Rated current	<= 12 A per module <= 6 A per connector <= 0.6 A per output
Output voltage limits	19...30 V
Output compatibility	Positive logic DC inputs (resistance <= 15 kOhm)
Maximum tungsten load	10 W
Switching frequency	< 0.6/LI <sup>2</sup> inductive
Preactuator voltage detection threshold	< 14 V fault state > 18 V OK state
Output overload protection	Thermal circuit breaker Current limiter
Output short-circuit protection	Current limiter Thermal circuit breaker
Output overvoltage protection	Zener diode
Reverse polarity protection	Reverse diode on power supply
Checks	Monitoring peactuator power supply
Local signalling	For channel diagnostics operative (CHO) 1 LED (green) For processor running (RUN) 1 LED (green) For I/O module or configuration fault (I/O) 1 LED (red) For processor or system fault (ERR) 1 LED (red)
Electrical connection	1 connector HE-10 20 pins for connecting the auxiliary inputs and the encoder power supply 1 connector HE-10 20 pins for connecting the track outputs on group 0 and 1 1 connector HE-10 20 pins for connecting the track outputs on group 2 and 3 1 connector SUB-D 15 for connecting incremental or absolute encoder
Current consumption	660 mA 5 V DC 15 mA 24 V DC
Module format	Standard
Net Weight	1.06 lb(US) (0.48 kg)

## Environment

Electromagnetic discharge time	< L/R s
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	10...95 % without condensation for operation 5...95 % without condensation for storage
Operating altitude	0...6561.68 ft (0...2000 m)

## Ordering and shipping details

Category	22558-TSX PREMIUM, ATRIUM & PL7 PRO
Discount Schedule	PC22
GTIN	3595860287144
Returnability	No
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.74 in (9.5 cm)
Package 1 Width	7.09 in (18.0 cm)
Package 1 Length	10.24 in (26.0 cm)
Package 1 Weight	29.03 oz (823.0 g)

## Offer Sustainability

California proposition 65	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>
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## Contractual warranty

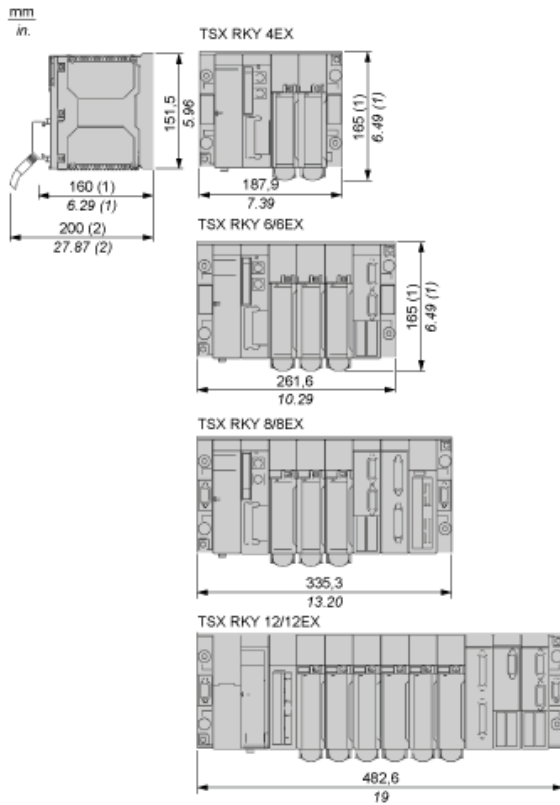
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Warranty	18 months
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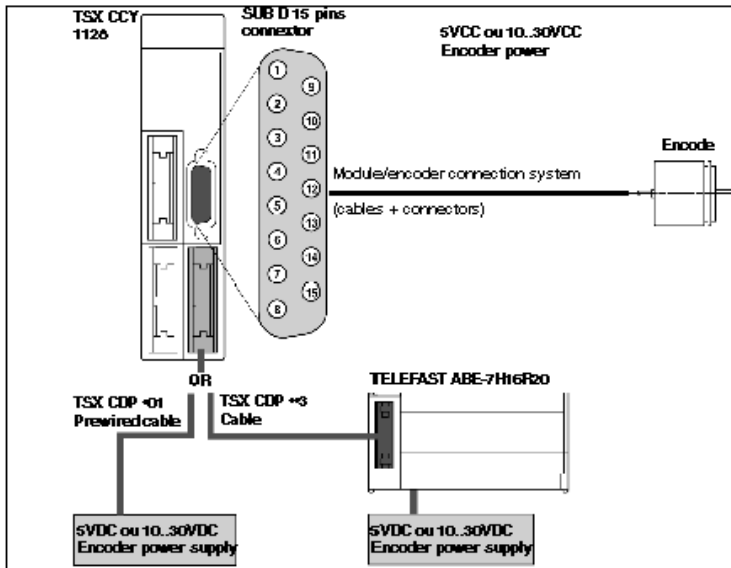
Standard and Extendable Racks for Modules Mounting

Dimensions of Modules and Racks



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

Connecting an Encoder to an Electronic Cam Module



Connecting an Incremental Encoder with RS422 Outputs

Pinouts of the Module's 15-pin SUB D Connector

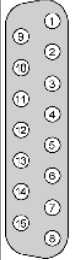
Diagram (front view)	Pin No.	Signal	Designation
	1	A+ 5V	Encoder input, pulse A+ (5VDC)
	2	A-	Encoder input, pulse A-
	3	-	-
	4	Z+ 5V	Encoder input, zero latch pulse Z+ (5VDC)
	5	Z-	Encoder input, zero latch pulse Z-
	6	-	-
	7	10...30 V	Encoder supply output (+ 10...30VDC)
	8	0 V	Encoder supply output (- 0VDC)
	9	-	-

Diagram (front view)	Pin No.	Signal	Designation
10	B+	Encoder input, pulse B+ (5VDC)	
11	B-	Encoder input, pulse B-	
12	-	-	
13	EPSR	Positive encoder supply feedback input. Receives positive supply feedback from the encoder, which allows the module to verify the encoder's presence.	
14	-	-	
15	5 V	Encoder supply output (+ 5VDC)	

### Connecting an Incremental Encoder with Totem Pole Outputs

#### Pinout Configuration of the Module's 15-pin SUB D Connector

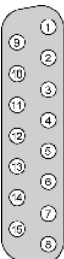
Diagram (front view)	Pin No.	Signal	Designation
	1	-	-
	2	A-	Input to be connected to 0V encoder
	3	B+ 24V	Encoder input, pulse B+ (10... 30VDC)
	4	-	-
	5	Z-	Input to be connected to 0V encoder
	6	-	-
	7	10...30 V	Encoder supply output (+ 10...30VDC)
	8	0 V	Encoder supply output (- 0VDC)
	9	A+ 24V	Encoder input, pulse A+ (10... 30VDC)
	10	-	-
	11	B-	Input to be connected to 0V encoder

Diagram (front view)	Pin No.	Signal	Designation
12	Z+ 24V	Encoder input, zero latch pulse Z+ (10...30VDC)	
13	EPSR	Positive encoder supply feedback input. Receives positive supply feedback from the encoder, which allows the module to verify the encoder's presence.	
14	-	-	
15	5 V	Encoder supply output (+ 5VDC)	

## Connecting an Absolute SSI Encoder

### Pinout Configuration of the Module's 15-pin SUB D Connector


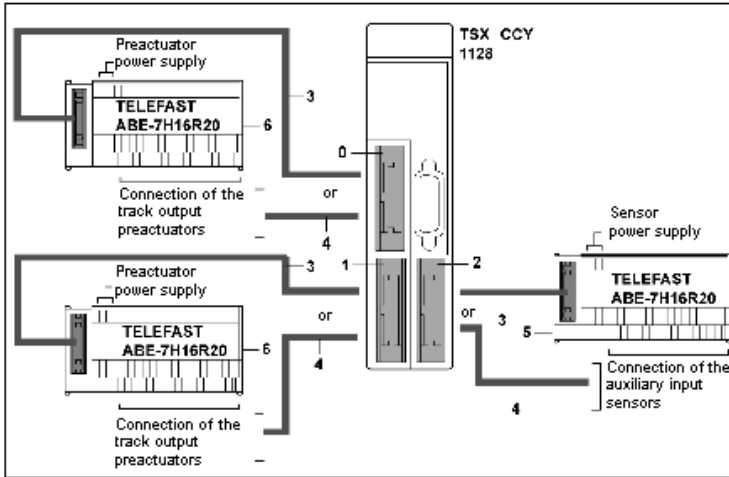
Diagram (front view)	Pin No.	Signal	Designation
	1	positive SSI data	Encoder input, positive SSI data (5VDC)
	2	negative SSI data	Encoder input, negative SSI data
	3	-	-
	4	-	-
	5	-	-
	6	CLK +	Encoder output, positive SSI CLK (5VDC)
	7	10...30 V	Encoder supply output (+ 10...30VDC)
	8	0 V	Encoder supply output (- 0VDC)
	9	-	-
	10	-	-
	11	-	-
	12	-	-
	13	EPSR	Positive encoder supply feedback input. Receives positive supply feedback from the encoder, which allows the module to verify the encoder's presence.

Diagram (front view)	Pin No.	Signal	Designation
14	CLK -	Encoder output, negative SSI CLK	
15	5 V	Encoder supply output (+ 5VDC)	

### Connecting Auxiliary Inputs and Track Outputs



### Connection of the Auxiliary Inputs

#### Pinout Configuration of the Module's HE10 Connector


Diagram (front view)	Pin No.	Signal	Designation
	1	5 V	Encoder supply input +5 VDC
	2	0 V	Encoder supply input - 0VDC
	3	10..30V	Encoder supply input + 10...30VDC
	4	VRef	Reference input voltage for encoder supply monitoring
	5	IREC	Auxiliary adjustment input
	6	-	Not wired
	7	ICAPT0	Auxiliary capture input 0
	8	ICAPT1	Auxiliary capture input 1
	9	-	Not wired
	10	-	Not wired
	11	-	Not wired
	12	-	Not wired
	13	-	Not wired

Diagram (front view)	Pin No.	Signal	Designation
14	-	Not wired	
15		Not wired	
16		Not wired	
17	24 V	Sensor supply input + 24VDC	
18	0 V	Sensor supply input - 0VDC	
19	24 V	Sensor supply input + 24VDC	
20	0 V	Sensor supply input - 0VDC	

## Connection of the Track Outputs

### Wiring Diagram

