# **Product datasheet**

Specification





# Modicon TM3, Discrete input module, 32 inputs (HE10) 24 VDC

TM3DI32K

## Main

Range Of Product	Modicon TM3
Product Or Component Type	Discrete input module
Range Compatibility	Modicon M241
	Modicon M251
	Modicon M221
	Modicon M262
Discrete Input Number	32 for input conforming to IEC 61131-2 Type 1
Discrete Input Logic	Sink or source (positive/negative)
Discrete Input Voltage	24 V
Discrete Input Current	5 mA for input

## Complementary

Discrete I/O Number	32
Current Consumption	5 mA at 5 V DC via bus connector (at state off) 0 mA at 24 V DC via bus connector (at state on) 0 mA at 24 V DC via bus connector (at state off) 65 mA at 5 V DC via bus connector (at state on)
Discrete Input Voltage Type	DC
Voltage State 1 Guaranteed	1528.8 V for input
Current State 1 Guaranteed	>= 2.5 mA (input)
Voltage State 0 Guaranteed	05 V for input
Current State 0 Guaranteed	<= 1 mA (input)
Input Impedance	4.4 kOhm
Response Time	4 ms (turn-on) 4 ms (turn-off)
Local Signalling	1 LED per channel (green) for input status
Electrical Connection	HE-10 connectorfor inputs
Maximum Cable Distance Between Devices	Unshielded cable: <30 m for regular input
Insulation	Between input and internal logic at 500 V AC Non-insulated between inputs
Marking	CE
Mounting Support	Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 rail conforming to IEC 60715 plate or panel with fixing kit
Height	90 mm
Depth	81.3 mm

Width	33.5 mm
Net Weight	0.1 kg

## **Environment**

Standards	IEC 61131-2
Product Certifications	cULus
	CE
	UKCA
	RCM
	EAC
	cULus HazLoc
Resistance To Electrostatic	8 kV in air conforming to IEC 61000-4-2
Discharge	4 kV on contact conforming to IEC 61000-4-2
Resistance To Electromagnetic	10 V/m 80 MHz1 GHz conforming to IEC 61000-4-3
Fields	3 V/m 1.4 GHz2 GHz conforming to IEC 61000-4-3
	1 V/m 2 GHz3 GHz conforming to IEC 61000-4-3
Resistance To Magnetic Fields	30 A/m 50/60 Hz conforming to IEC 61000-4-8
Resistance To Fast Transients	1 kV for I/O conforming to IEC 61000-4-4
Surge Withstand	1 kV I/O common mode conforming to IEC 61000-4-5 DC
Resistance To Conducted	10 V 0.1580 MHz conforming to IEC 61000-4-6
Disturbances	3 V spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz) conforming to
	Marine specification (LR, ABS, DNV, GL)
Electromagnetic Emission	Radiated emissions - test level: 40 dBµV/m QP class A ( 10 m) at 30230 MHz
3	conforming to IEC 55011
	Radiated emissions - test level: 47 dBµV/m QP class A ( 10 m) at 2301000 MHz
	conforming to IEC 55011
Ambient Air Temperature For	-1035 °C vertical installation
Operation	-1055 °C horizontal installation
Ambient Air Temperature For Storage	-2570 °C
Relative Humidity	1095 %, without condensation (in operation)
	1095 %, without condensation (in storage)
Ip Degree Of Protection	IP20 with protective cover in place
Pollution Degree	2
Operating Altitude	02000 m
Storage Altitude	03000 m
Vibration Resistance	3.5 mm at 58.4 Hz on DIN rail
	3 gn at 8.4150 Hz on DIN rail
	3.5 mm at 58.4 Hz on panel
	3 gn at 8.4150 Hz on panel
Shock Resistance	15 gn for 11 ms

## **Packing Units**

9	
Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	7.639 cm
Package 1 Width	10.55 cm
Package 1 Length	12.87 cm
Package 1 Weight	220.0 g
Unit Type Of Package 2	CAR
Number Of Units In Package 2	42

Package 2 Height	29.6 cm
Package 2 Width	40.3 cm
Package 2 Length	55.9 cm
Package 2 Weight	10.431 kg
Unit Type Of Package 3	P12
Number Of Units In Package 3	504
Package 3 Height	105 cm
Package 3 Width	120 cm
Package 3 Length	80 cm
Package 3 Weight	133 kg



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**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

## Well-being performance

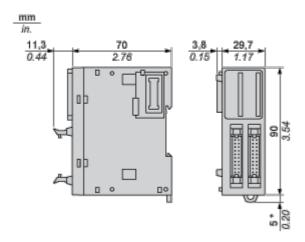
<b>⊘</b>	Reach Free Of Svhc
<b>⊘</b>	Toxic Heavy Metal Free
<b>⊘</b>	Mercury Free
<b>⊘</b>	Rohs Exemption Information Yes
<b>⊘</b>	Pvc Free

## **Certifications & Standards**

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)  EU RoHS Declaration
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information

## **Dimensions Drawings**

#### **Dimensions**

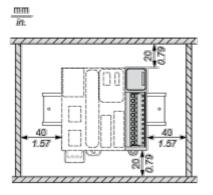


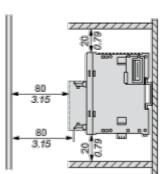
(\*) 8.5 mm/0.33 in. when the clamp is pulled out.

## TM3DI32K

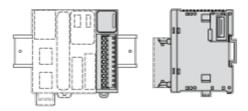
Mounting and Clearance

## **Spacing Requirements**

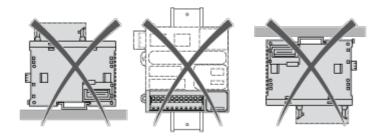




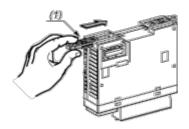
## Mounting on a Rail



## **Incorrect Mounting**

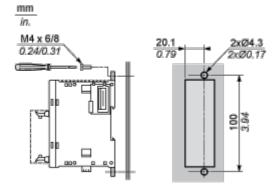


## Mounting on a Panel Surface



(1) Install a mounting strip

## **Mounting Hole Layout**

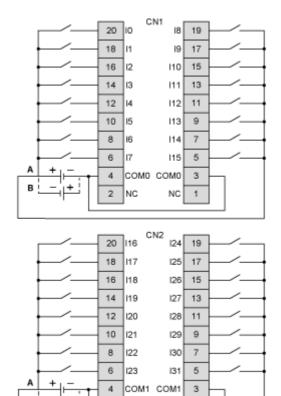


## TM3DI32K

#### Connections and Schema

#### Digital Input Module (32-channel, 24 Vdc)

## Wiring Diagram



The COM0 and COM1 terminals are not connected internally

1

2 NC

- (A) Sink wiring (positive logic)
- (B) Source wiring (negative logic)