# Product data sheet





# Controller, Modicon M171/M172/ M173, performance display 42 IO, Modbus, solid state relay

TM172PDG42S

Discontinued on: Jan 10, 2022



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

## Main

Range of Product	Modicon M171/M172	
Product or Component Type	Programmable controllers	
Product Specific Application	HVAC and pumping solution	
variant	Programmable	
Total inputs/outputs	42	
Discrete input number	12	
Discrete output number	5 relay outputs SPST with same common 2 solid state, isolated SSR with independent common 2 relay outputs SPDT with same common 3 relay outputs SPST with independent common	
Discrete output current	0.5 A solid state, isolated 1 A relay SPDT 3 A relay SPST	
Analogue input number	12 configurable by pair	
Analogue output number 4 voltage 010 V 2 voltage/current 420 mA or 010 V or PWM (2 kHz)		

# Complementary

Number of port	1 CAN port - screw terminal block 1 USB type A - USB type A female 1 USB type mini B - USB device port Mini-B 2 RS485 - screw terminal block Modbus serial link or BACnet MS/TP) 1 Ethernet - RJ45 Modbus TCP and BACnet IP with webserver)	
Input/output number	12 analog input 6 analog output 12 digital input 12 digital output	
Discrete input logic	Sink or source (positive/negative)	
Discrete input voltage	24 V AC/DC	
Discrete input current	2.5 mA	
Input impedance	10 kOhm	

Price is "List Price" and may be subject to a trade discount - check with your local distributor or retailer for actual price.

Analogue input type	impedance 01500 hOhm impedance 0300 daOhm direct input NTC temperature probe - 50110 °C 0.1 °C extended) voltage 010 V NTC temperature probe - 40150 °C 0.1 °C current 020 mA/420 mA PTC temperature probe - 55150 °C 0.1 °C voltage 05 V absolute or ratiometric) Pt 1000 temperature probe - 200850 °C 0.1 °C	
Sensor power supply	5 V DC 50 mA supplied by the controller 24 V DC 150 mA supplied by the controller	
[Us] rated supply voltage	24 V +/- 10 % AC 2038 V DC	
Power consumption in W	15 W 24 V AC/DC	
Realtime clock	Built-in clock at -4131 °F (-2055 °C)	
Display type	Backlit LCD - 128 x 64 pixels	
Overvoltage category	П	
Local signalling	for programmable 1 LED (red) for programmable 1 LED (yellow) for programmable 1 LED (green) for power 1 LED (green)	
Mounting Support	Panel mounting with accessory DIN rail	
Width	5.7 in (144 mm)	
Height	4.3 in (110 mm)	
Depth	2.4 in (60.5 mm)	
Net Weight	0.849 lb(US) (0.385 kg)	

# **Environment**

Directives	2006/95/EC - low voltage directive 86/188/EEC - physical agents (noise) directive	
Standards	EN/IEC 60730 UL94 (material V0)	
Product Certifications	cURus CSA CE EAC	
Ambient air temperature for operation	-4131 °F (-2055 °C) UL 60730-1	
Ambient Air Temperature for Storage	-22158 °F (-3070 °C)	
Relative humidity	595 % non-condensing	
IP degree of protection	IP20	
Pollution degree	2	
Operating altitude	06561.68 ft (02000 m)	

# Ordering and shipping details

Category	US1PC1222537	
Discount Schedule	PC12	
GTIN	3606480894893	
Returnability	No	
Country of origin	IT	

# **Packing Units**

Unit Type of Package 1	PCE	
Number of Units in Package 1	1	
Package 1 Height	5.157 in (13.100 cm)	
Package 1 Width	3.583 in (9.100 cm)	
Package 1 Length	7.362 in (18.700 cm)	
Package 1 Weight	15.697 oz (445.000 g)	
Unit Type of Package 2	S02	
Number of Units in Package 2	6	
Package 2 Height	5.906 in (15.000 cm)	
Package 2 Width	11.811 in (30.000 cm)	
Package 2 Length	15.748 in (40.000 cm)	
Package 2 Weight	6.504 lb(US) (2.950 kg)	

# Sustainability Green Premium™

**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**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

## Resource performance



# Well-being performance



Mercury Free



Rohs Exemption Information

Yes

## **Certifications & Standards**

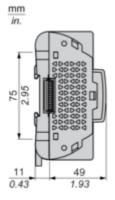
Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Circularity Profile	End of Life Information
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 www.P65Warnings.ca.gov

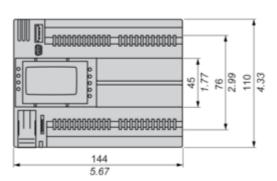
# **Product data sheet**

# **TM172PDG42S**

# **Dimensions Drawings**

## **Dimensions**

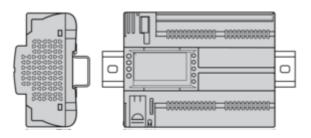




Mounting and Clearance

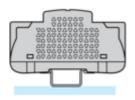
#### **Mounting Positions**

## **Correct Mounting Position**

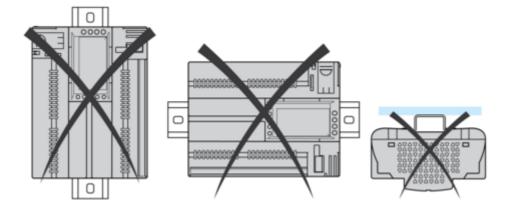


#### **Acceptable Mounting Position**

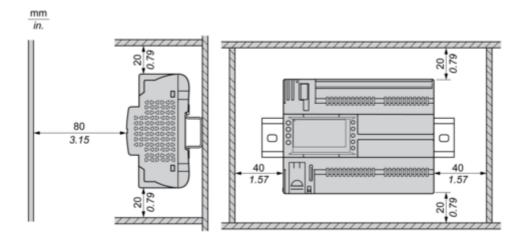
Controller can be mounted horizontally upward with a temperature derating (maximum ambient temperature: 60  $^{\circ}$ C (140  $^{\circ}$ F)).



## **Incorrect Mounting Position**



## Clearance

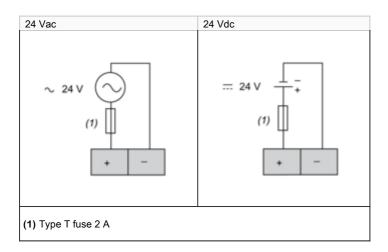


# **Product data sheet**

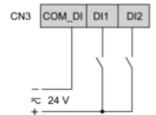
# TM172PDG42S

# Connections and Schema

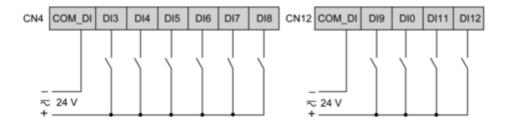
# Power Supply



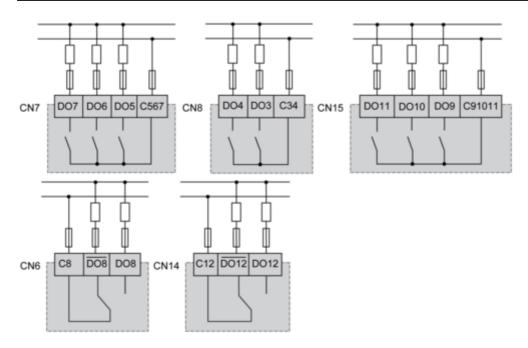
# **CN3 Fast Digital Inputs**



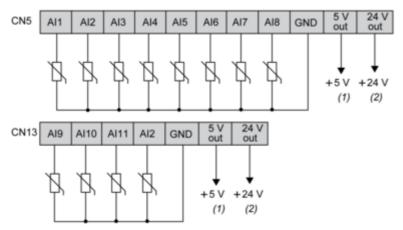
# CN4, CN12 Digital Inputs



# CN7, CN8, CN15, CN6, CN14 High Voltage Relay SPST Digital Output

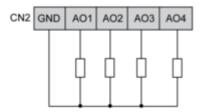


## CN5, CN13 Analog Inputs

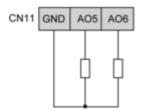


(1) (CN5 + CN13) Max. current : 50 mA. (2) (CN5 + CN13) Max. current : 150 mA.

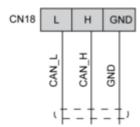
## CN2, CN11 Analog Outputs



AO3, AO4 can be used also as PWM generator, up to 2kHz.



# **CN18 CAN Expansion Bus Port**



# CN19, CN1 CAN Expansion Bus Port

