Product datasheet





Controller, Modicon M171/M172/ M173, performance, display, 28 IO, Ethernet, Modbus

TM172PDG28R

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	28	
Discrete Input Number	8	
Discrete Output Number	1 for relay outputs SPDT with independent common	
	3 for relay outputs SPST with same common	
	2 for relay outputs SPST with same common	
	2 for relay outputs SPST with independent common	
Discrete Output Current	1 A for relay SPDT	
	3 A for relay SPST	
Analogue Input Number	8 configurable by pair	
Analogue Output Number	2 voltage, range: 010 V	
	2 voltage/current, range: 420 mA or 010 V or PWM (2 kHz)	

Complementary

Number Of Port	1 CAN port - screw terminal block	
Number of Fore	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)	
	T Ethornet Tro-to (Modabus For and Briothet II with Webselver)	
Input/Output Number	8 digital input(s)	
	8 analog input(s)	
	4 analog output(s)	
	8 digital output(s)	
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	
Analogue Input Type	impedance 01500 hOhm	
	impedance 0300 daOhm	
	NTC temperature probe - 50110 °C - resolution: 0.1 °C (extended)	
	voltage 010 V	
	NTC temperature probe - 40150 °C - resolution: 0.1 °C	
	current 020 mA/420 mA	
	PTC temperature probe - 55150 °C - resolution: 0.1 °C	
	voltage 05 V (absolute or ratiometric)	
	Pt 1000 temperature probe - 200850 °C - resolution: 0.1 °C	
Sensor Power Supply	5 V DC at 50 mA supplied by the controller	
	24 V DC at 150 mA supplied by the controller	

[Us] Rated Supply Voltage	24 V +/- 10 % AC 2038 V DC
Power Consumption In W	15 W at 24 V AC/DC
Realtime Clock	Built-in clock at -2060 °C
Display Type	Backlit LCD - 128 x 64 pixels
Overvoltage Category	II
Local Signalling	1 LED (red) for programmable 1 LED (yellow) for programmable 1 LED (green) for programmable 1 LED (green) for power
Mounting Support	Panel mounting with accessory DIN rail
Width	144 mm
Height	110 mm
Depth	60.5 mm
Net Weight	0.3 kg

Environment

Directives	86/188/EEC - physical agents (noise) directive 2006/95/EC - low voltage directive
Standards	EN/IEC 60730 UL94 (material V0)
Product Certifications	EAC CSA CE cURus
Ambient Air Temperature For Operation	-2060 °C conforming to UL 60730-1 -2065 °C with derating conforming to UL 60730-1
Ambient Air Temperature For Storage	-3070 °C
Relative Humidity	595 % non-condensing
Ip Degree Of Protection	IP20
Pollution Degree	2
Operating Altitude	02000 m

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	13.5 cm
Package 1 Width	9.0 cm
Package 1 Length	18.6 cm
Package 1 Weight	397.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	6
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm

Package 2 Weight

2.65 kg

Sustainability Green Premium

Green PremiumTM **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-CO₂ 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

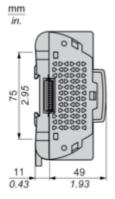
Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection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

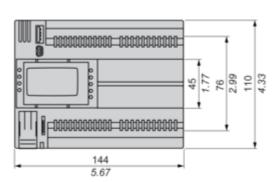
Product datasheet

TM172PDG28R

Dimensions Drawings

Dimensions

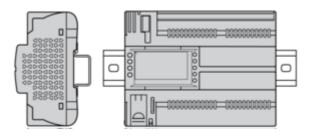




Mounting and Clearance

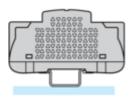
Mounting Positions

Correct Mounting Position

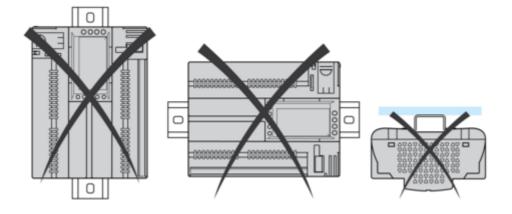


Acceptable Mounting Position

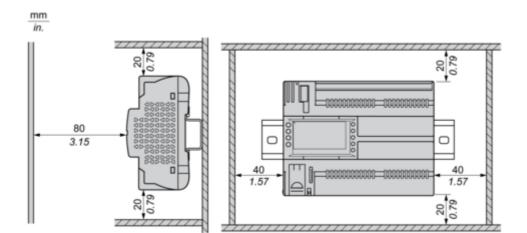
Controller can be mounted horizontally upward with a temperature derating (maximum ambient temperature: 60 $^{\circ}$ C (140 $^{\circ}$ F)).



Incorrect Mounting Position



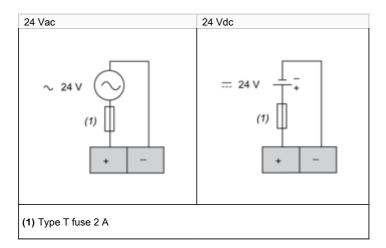
Clearance



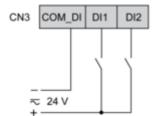
TM172PDG28R

Connections and Schema

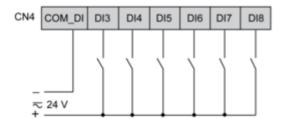
Power Supply



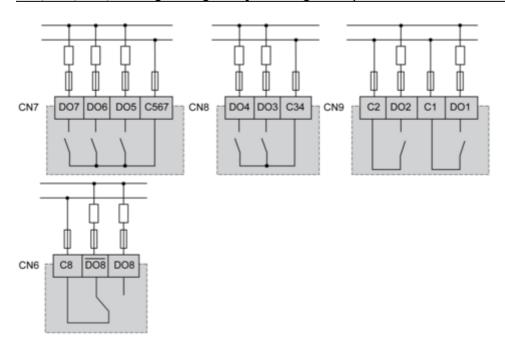
CN3 Fast Digital Inputs



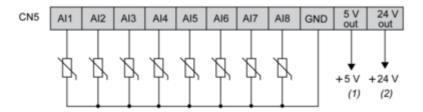
CN4 Digital Inputs



CN7, CN8, CN9, CN6 High Voltage Relay SPST Digital Output

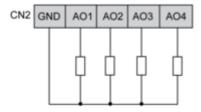


CN5 Analog Inputs



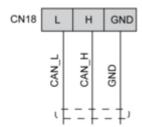
(1) Max. current : 50 mA.(2) Max. current : 150 mA.

CN2 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

