

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

TM172PDG42S

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
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

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

PTC temperature probe - 55...150 °C 0.1 °C voltage 0...5 V absolute or ratiometric) Pt 1000 temperature probe - 200...850 °C 0.1 °C

current 0...20 mA/4...20 mA

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	II	
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	5.16 in (13.100 cm)	
Package 1 Width	3.58 in (9.100 cm)	

Package 1 Length	7.36 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	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	6.504 lb(US) (2.950 kg)



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

∇ Environmental footprint	
Carbon footprint (kg CO2 eq, Total Life cycle)	683
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	2c365b3a-5b0a-48fd-acc7-751c89a723a2
REACh Regulation	REACh Declaration
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

Use Again

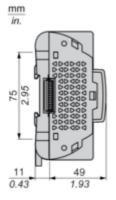
○ Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No

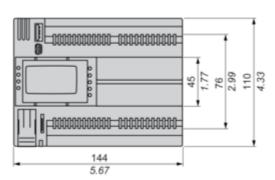
Product data sheet

TM172PDG42S

Dimensions Drawings

Dimensions

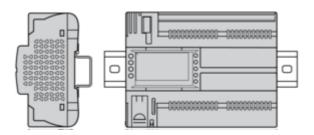




Mounting and Clearance

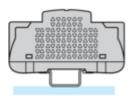
Mounting Positions

Correct Mounting Position

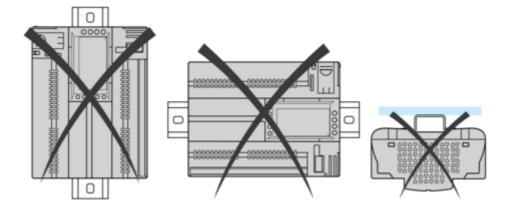


Acceptable Mounting Position

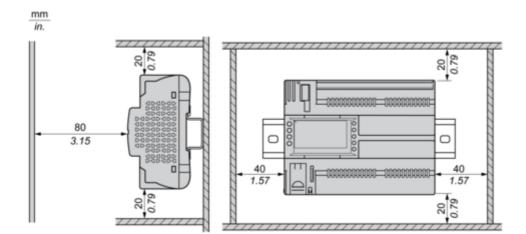
Controller can be mounted horizontally upward with a temperature derating (maximum ambient temperature: 60 $^{\circ}$ C (140 $^{\circ}$ F)).



Incorrect Mounting Position

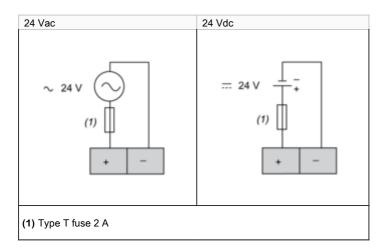


Clearance

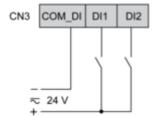


Connections and Schema

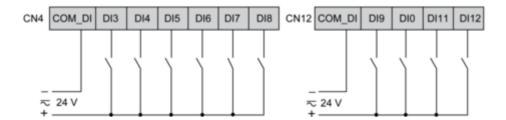
Power Supply



CN3 Fast Digital Inputs

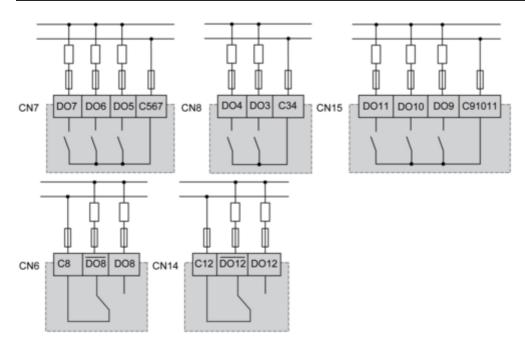


CN4, CN12 Digital Inputs

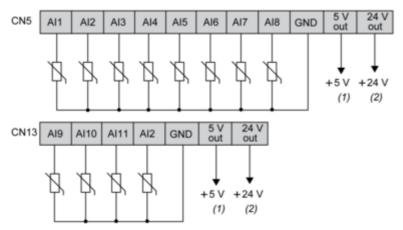


TM172PDG42S

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



CN5, CN13 Analog Inputs

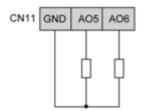


(1) (CN5 + CN13) Max. current : 50 mA. (2) (CN5 + CN13) Max. current : 150 mA.

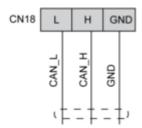
CN2, CN11 Analog Outputs



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



CN18 CAN Expansion Bus Port



CN19, CN1 CAN Expansion Bus Port

