

Modicon M171/M172/M173

Logic controllers for HVAC and Pumping applications

M172 Optimized and Performance logic controllers, Remote displays

Application	Logic controllers for any size of connectable machines																
Product name	M172 Performance		M172 Optimized		M172 Performance			M172 Optimized		M172 Performance			M172 Optimized		M172 Performance		
																	
Reference	TM172PBG07R (1)	TM172PDG07R (1)	TM172OBM18R (1)	TM172ODM18R (1)	TM172PBG18R (1)	TM172PDG18R (1)	TM172PDG18S (1)	TM172OBM28R (1)	TM172ODM28R (1)	TM172PBG28R, TM172PBG28RI (1)	TM172PDG28R, TM172PDG28RI (1)	TM172PDG28SI (1)	TM172OBM42R (1)	TM172ODM42R (1)	TM172PBG42R, TM172PBG42RI (1)	TM172PDG42R, TM172PDG42RI (1)	TM172PDG42S, TM172PDG42SI (1)
Power supply	24 Vac/dc								24 Vac/dc								
Type of mounting	4 DIN, 35 mm/1.38 in ½ rail mounting Performance controllers, and Panel mounting with TM172AP12PM mounting accessory(2)								8 DIN, 35 mm/1.38 in ½ rail mounting Performance controllers, and Panel mounting with TM172AP12PM mounting accessory (2)								
Embedded display	No	Built-in display 128x64 LCD with backlight	No	Built-in display 128x64 LCD with backlight	No	Built-in display 128x64 LCD with backlight		No	Built-in display 128x64 LCD with backlight	No	Built-in display 128x64 LCD with backlight		No	Built-in display 128x64 LCD with backlight	No	Built-in display 128x64 LCD with backlight	
Total I/Os	7		18		18			28		28			42		42		
Analog Input	2		8		8			8		8			12		12		
NTC, or PT1000, or PTC, or 0-20 mA, or 4-20 mA, or 0-5 V, or 0-10 V, or hOhm, or daOhm, or digital input	2		8		8			8		8			12		12		
Digital Inputs	2		2		2			8		8			12		12		
High speed counter (2 kHz), dry contact	2		2		2			2		2			2		2		
24 Vac/dc	–		–		–			6		6			10		10		
Analog Outputs	–		2		2			4		4			6		6		
0-10 V, or 4-20 mA, or PWM (2 kHz, 24 Vdc)	–		2		2			2		2			2		2		
0-10 V	–		2		2			2		2			4		4		
Digital Outputs	3		6		6			8		8			12		12		
Relay 3 A	3		6		6	6	4	8		8	6		12		12	10	
SSR 0,5 A	–		–		–	2		–		–	2		–		–	2	
Compatible Secure Interface	TM172SIG, TM172SIP								TM172SIG, TM172SIP								
Compatible expansion module	TM172E12R, TM172E28R, TM171EP14R and TM171EP27R (up to 7 I/O expansions max.)								TM172E12R, TM172E28R, TM171EP14R and TM171EP27R (up to 7 I/O expansions max.)								
Compatible expansion valve driver	TM172EVEV1U, TM172EVEV1B, TM172EVEV2B (up to 4 expansion valve drivers max.)								TM172EVEV1U, TM172EVEV1B, TM172EVEV2B (up to 4 expansion valve drivers max.)								
Embedded communication port	Ethernet (Modbus TCP, BACnet IP (B-AAC profile), WebVisu)	1	–		1			–		1			–		1		
	RS485 (Modbus SL or BACnet MS/TP (B-AAC profile))	2	2		2			2		2			2		2		
	CAN expansion bus	1	1		1			1		1			1		1		
	Communication module port	1	1		1			1		1			1		1		
	USB-B	1	1		1			1		1			1		1		
	USB-A	1	–		1			–		1			–		1		
	µSD Card slot	1	–		1			–		1			–		1		
Optional communication port	With communication module (see page 42)	- CAN expansion bus - Modbus TCP - Modbus SL(RS485) - BACnet MS/TP (B-AAC profile) - BACnet IP (B-AAC profile) - RS232 Serial link - LonWorks (FFT-10)															
	With Secure Interfaces (see page 40)	- FTPs - HTTPs - SMTPs - SNMT - MQTT - Cybersecure VPN															

(1) Products equipped with an isolated power supply, and two isolated RS485 ports. (2) Accessories to be ordered separately.

Application	Remote displays (compatible with each M172 Logic controller)					
						
References	TM172DGRP	TM172DCLWT	TM172DCLWTH	TM172DCLWTHP	TM172DCLFW	TM172DCLFG
Type of mounting	Remote wall	Remote wall	Remote wall	Remote wall	Remote flush	Remote flush
Description	LCD display with backlight	LCD display, Color touchscreen Temperature	LCD display, Color touchscreen Temperature, Relative humidity	LCD display, Color touchscreen Temperature, Relative humidity, Presence PIR	LCD display, Color touchscreen IP65 (front face)	LCD display, Color touchscreen IP65 (front face)
Programming software	EcoStruxure Machine Expert - HVAC V1.0 or higher					
Product certifications	CE, cURus (UL Recognized), CSA, EAC, RCM, RoHS China					
Communication	CAN expansion bus		Modbus SL		Modbus SL	