PR200

The PR200 Programmable Relay is a multifunctional and easy-to-use device designed in a plastic enclosure for DIN rail mounting as an alternative to the PLC. This mini PLC is available in several versions depending on the supply voltage (24V DC or 230V AC) and the set of built-in inputs and outputs (digital, analog, or their combination).
This device features a programmable 2-line 32-character LCD display. On option, one or two RS485 interfaces are available for implementing a Modbus communication either in Master or in Slave mode. A user-friendly programming software, akYtec ALP, is included free of charge.

Functions and features:
- Up to built-in 8DI + 8DO + 4AI + 2AO + LCD + 2xRS485 in one device
- Configurable inputs for 4-20mA, 0-10V, 0-4000ohm (PTC, KTY thermistors, Pt1000)
- Up to 2xRS485 interfaces with Modbus RTU / ASCII | Master/Slave
- Versatile programming of LCD display
- Configuration with the function buttons or using ALP software
- 2 programmable LEDs
- PRM-expandable: up to 32 additional I/O points over an internal bus with no loss in performance
- Real-time clock

Possible areas of application:
- Building automation
- Indoor and outdoor lighting, shop window lighting, access systems
- Technical equipment such as pumps, fans, compressors, presses
- Conveyor and filling systems

8 digital inputs	**8 DI**
Up to 8 digital outputs	**8 DO**
Up to 4 analog inputs	**4 AI**
Up to 2 analog outputs	**2 AO**
LCD display	**LCD**
Protocol Modbus RTU/ASCII	**Modbus**
Up to 2 RS485 interfaces	**RS485**
USB interface	
DIN rail mounting	**DIN**
Ambient temperature	+50°C / -20°C

Standard variant	Description	Enclosure
PR200.24.1.1	24 V DC, 8DI + 6DO, LCD, 1x RS485 (Modbus RTU/ASCII)	123 x 108 x 58 mm, DIN rail
PR200.24.2.0	24 V DC, 8DI + 8DO + 4AI + 2AO (4-20 mA), LCD	
PR200.24.2.2	24 V DC, 8DI + 8DO + 4AI + 2AO (4-20 mA), LCD, 2x RS485 (Modbus RTU/ASCII)	
PR200.24.4.0	24 V DC, 8DI + 8DO + 4AI + 2AO (0-10 V), LCD	
PR200.24.4.2	24 V DC, 8DI + 8DO + 4AI + 2AO (0-10 V), LCD, 2x RS485 (Modbus RTU/ASCII)	
PR200.230.1.1	230 V AC, 8DI + 6DO, LCD, 1x RS485 (Modbus RTU/ASCII)	
PR200.230.2.0	230 V AC, 8DI + 8DO + 4AI + 2AO (4-20 mA), LCD	
PR200.230.2.2	230 V AC, 8DI + 8DO + 4AI + 2AO (4-20 mA), LCD, 2x RS485 (Modbus RTU/ASCII)	
PR200.230.4.0	230 V AC, 8DI + 8DO + 4AI + 2AO (0-10 V), LCD	
PR200.230.4.2	230 V AC, 8DI + 8DO + 4AI + 2AO (0-10 V), LCD, 2x RS485 (Modbus RTU/ASCII)	

Dimensions:

MINI-PLCs

akYtec

We will be glad to assist you! Tel.: +49 (0) 511 16 59 672-0
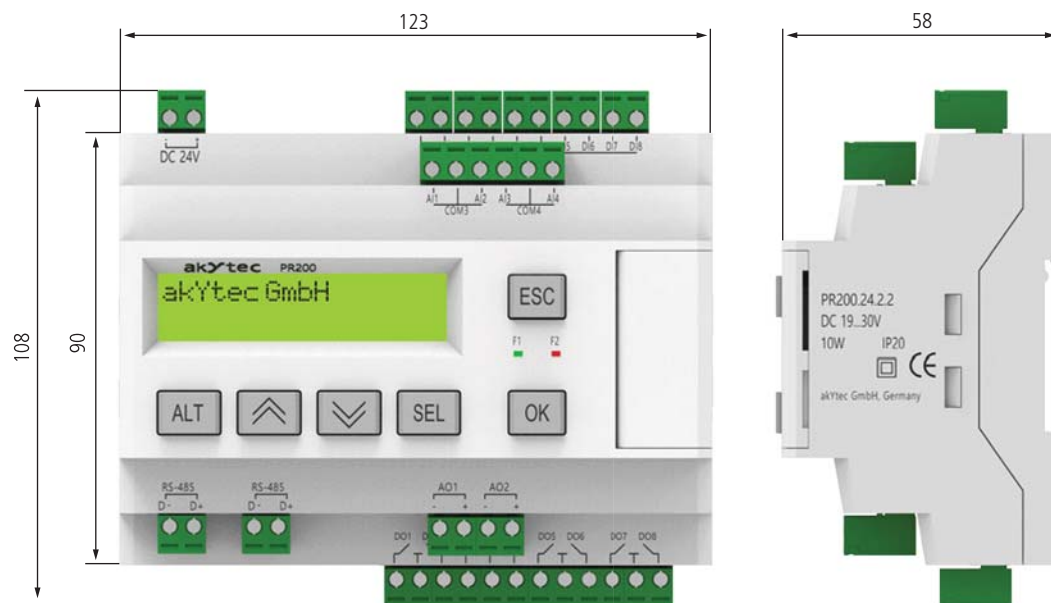
Technical data:

	PR200.230.1	PR200.230.2	PR200.24.1	PR200.24.2
General				
Power supply	230 (90...264) V AC; 50 (47...63) Hz		24 (19...30) V DC	
Power consumption, max.	10 VA	17 VA	10 W	
Integrated voltage source	–	24±3 V DC, 100 mA	–	
Display	LCD with backlight, 2-line, 2x16-characters		LCD with backlight, 2-line, 2x16-characters	
Function keys	6		6	
Real-Time Clock	Backup 8 years (CR2032)		Backup 8 years (CR2032)	
Mounting	DIN rail (switchboard / distribution box)		DIN rail (switchboard / distribution box)	
Ambient temperature	-20...+55 °C		-20...+55 °C	
IP code	IP20		IP20	
Dimensions	123 x 108 x 58 mm		123 x 108 x 58 mm	
Weight	approx. 350 g		approx. 350 g	
Programming				
Programming environment	akYtec ALP		akYtec ALP	
Programming language	FBD		FBD	
ROM	128 kB		128 kB	
Retain memory	1016 Byte		1016 Byte	
Interfaces				
RS485	optional, up to 2 x		optional, up to 2 x	
Protocols	Modbus RTU / ASCII (Master / Slave)		Modbus RTU / ASCII (Master / Slave)	
Baud rate	9.6...115.2 kbit/s		9.6...115.2 kbit/s	
Programming interface	Mini-USB		Mini-USB	
Digital inputs				
Quantity	8		8	
Type	Switch contact		Switch contact, PNP with open collector, digital signals -3...+30 VDC	
Logical states				
1	159...264 V AC (0.75...1.5 mA)		15...30 V DC (5 mA)	
0	0...40 V AC (0...0.5 mA)		-3...+5 V DC (0...1 mA)	
Galvanic isolation	in groups of 4		in groups of 4	
Universal inputs				
Quantity	-	4	-	4
Mode	-	Analog / Digital	-	Analog / Digital
Galvanic isolation	none		none	
Analog input	-	0-10 V, 4-20 mA, 0...4 kohm	-	0-10 V, 4-20 mA, 0...4 kohm
ADC resolution	12 bit		12 bit	
Digital outputs				
Quantity	6	8	6	8
Type	relay (NO)		relay (NO)	
Galvanic isolation	in groups of 2		in groups of 2	
Switching capacity				
AC	5 A, 250 V (resistive load)		5 A, 250 V (resistive load)	
DC	3 A, 30 V		3 A, 30 V	
Minimum load current	10 mA (at 5 V DC)		10 mA (at 5 V DC)	
Analog outputs				
Quantity	-	2	-	2
Type	-	4-20 mA	-	4-20 mA
Loading capacity	-	12...30 V, max. 1 kohm	-	12...30 V, max. 1 kohm
DAC resolution	10 bit		10 bit	

MINI-PLCs

akYtec

We will be glad to assist you! Tel.: +49 (0) 511 16 59 672-0