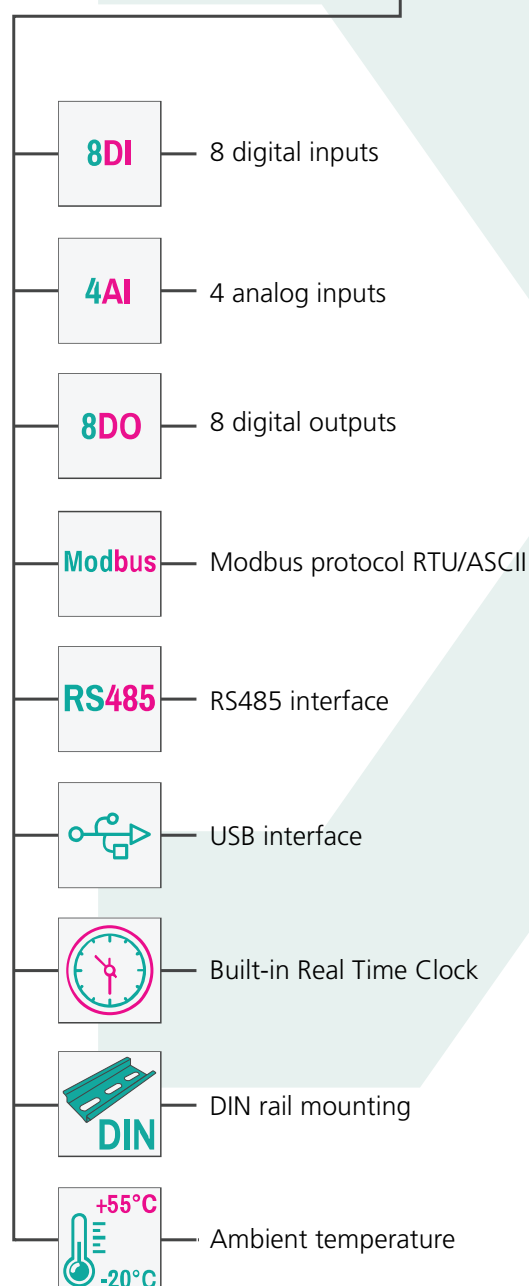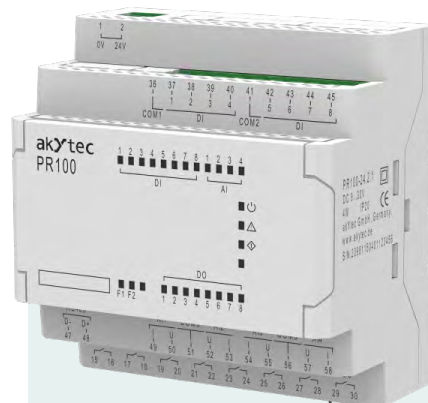# PR100

Programmable relay

The programmable relay PR100 is a small controller, developed for automated control systems in industry, agriculture, building technology and household applications. User program is created as a function plan with the ALP programming software, which is available for free download. The ALP project includes the program as well as the device configuration. Dynamically allocated memory enables to create complicated programs with many functional blocks, display elements and advanced display management. The analog inputs can be also used as digital inputs. The device is designed in a plastic enclosure for DIN rail mounting. The enclosure has 3-level stepped form for the installation in switchboards. Plug-in terminal blocks enable quick and easy replacement of the device.

Functions and features:

• Up to 8DI + 8DO + 4AI + 1xRS485 in one device
• Connecting different sensors 4-20mA, 0-10V, digital signals
• Programming and configuration using ALP software
• Master or slave in Modbus network over RS485 interface
• Real-time clock
• 2 programmable LEDs

Standard variants	Description	Enclosure
PR100-24.2.1	24V DC, 8DI + 4AI + 8DO Relay, 1x RS485 (Modbus RTU/ASCII)	DIN rail 80 x 108 x 58 mm

8DI — 8 digital inputs

4AI — 4 analog inputs

8DO — 8 digital outputs

Modbus — Modbus protocol RTU/ASCII

RS485 — RS485 interface

USB interface

Built-in Real Time Clock

DIN — DIN rail mounting

+55°C / -20°C — Ambient temperature

PR100
Programmable relay

Technical Data:

General		
Power supply		24 (9...30) V DC
Power consumption, max.		4 W
Real Time Clock		Backup 5 years (CR2032)
Real Time Clock accuracy		± 3 s/day
Extension modules		none
Programming		
Programming environment		akYtec ALP
Programming language		FBD
Programming interface		Mini-USB
Memory	ROM	128 kB
	RAM	16 kB
	Retain memory	1 kB
	Network variables	128 Byte
Communication		
Interface		RS485
Protocols		Modbus RTU / ASCII (Master / Slave)
Baud rate		9.6...115.2 kBit/s
Digital inputs		
Quantity		8
Type		Switch contact
Logical states	1	8.5...30 V DC (2...5 mA)
	0	-3...+5 V DC (0...15 mA)
Galvanic isolation		in groups of 4
Universal inputs		
Quantity		4
Input signal		Analog / Digital
Galvanic isolation		none
Analog input		4-20 mA, 0-10 V
Resolution ADC		12 bit
Digital outputs		
Quantity		8
Type		relay, NO
Galvanic isolation		individual
Switching capacity	AC	5 A, 250 V (resistive load)
	DC	3 A, 30 V
Minimum load current		10 mA (at 5 V DC)
Environment		
Ambient temperature		-40...+55 °C
Storage temperature		-25...+55 °C
Humidity		up to 80 % (at +25 °C, non-condencing)
IP Code		IP20
Enclosure		
Dimensions		88 × 108 × 58 mm
Weight		approx. 250 g
Material		plastic

akYtec

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