

Product Information

**Universal Measuring and
Regulating Device
GIR 2002 PID**



- PID control mode
- Universal input for standard signals, frequency, Pt100/Pt1000 and thermocouples
- Switching outputs variably configurable

Characteristics

The GIR 2002 PID is particularly suitable for less complex control systems which require PID control.

The GIR 2002 PID is a microprocessor-controlled displaying, monitoring and regulating device for universal use. It has a universal input for standard signals (0..20 mA, 4..20 mA, 0..50 mV, 0..1 V, 0..2 V and 0..10 V), resistance thermometers (Pt100 and Pt1000), thermocouples (type J, K, N, S and T) and frequency (TTL and switch contact). Additionally it provides switching outputs whose switching functions can be configured variably.

The device has an EASYBus interface by default that makes the GIR 2002 PID a full-fledged EASYBus module. An additional interface converter allows communicating with a PC.

Technical data

Measuring inputs

- Standard signals : 0..20 mA, 4..20 mA, 0..50 mV, 0..1 V, 0..2 V and 0..10 V
- Resistance thermometer : Pt100 (3-wire), Pt1000 (2-wire)
- Thermocouples : type J, K, N, S, T
- Frequency, rotation speed
- Flow
- Up/down counter
- Serial interface

Output functions

- Control mode : PID
- Switching functions : display, 2-point, 3-point, 2-point with min-/max-alarm, min-/max-alarm

Display

- Display : LED display
- Height : 13 mm
- Display range : -1999..+9999 digit, initial / final value and decimal point freely selectable
- Operation : via 4 buttons or via interface

Measurement Data Acquisition

- Power supply for transmitter : 24 V DC ±5 %, 22 mA, elec. isolated at DC-supply: 18 V DC
- Working temperature : -20..+50 °C
- Electric connection : via screw / clamp terminals cable cross section: 0.14..1.5 mm²
- Protection class : front IP54, with optional sealing: IP65
- Bus load : 1

Dimensions

- Size : 48 x 96 mm (H x W)
- Mounting depth : 115 mm (incl. screw / clamp terminals)
- Panel mounting : by fixing clamps
- Panel cutout : 43.0 x 90.5 [±0.5 mm] (H x W)

Design types / options

230A	supply voltage: 230 V AC (standard)
012D	supply voltage: 12 V DC (11..14 V)
024D	supply voltage: 24 V DC (22..27 V)
024A	supply voltage: 24 V AC (±5 %)
115A	supply voltage: 115 V AC (±5 %)
R1	output 1 = potential-free relay switching output (normally-open contact, 5 A / 250 V AC)
H1	output 1 = control output for external semiconductor relay (15 mA / 6 V DC)
R2	output 2 = potential-free relay switching output (change-over contact, 10 A / 250 V AC)
H2	output 2 = control output for external semiconductor relay (15 mA / 6 V DC)
R3	additional output 3 = potential-free relay switching output (change-over, 1 A / 40 V AC o. 30 V DC)
H3	additional output 3 = control output for external semiconductor relay (5 mA / 14 V DC)
N3	additional output 3 = elec. isolated npn switching contact (max. 1 A / 30 V DC)
AA3	output 3 = freely scalable analog output 0(4)..20 mA
AV3	output 3 = freely scalable analog output 0..10 V
SA1	output 1 = continuous output 0(4)..20 mA no additional 3 rd output possible
SV1	output 1 = continuous output 0..10 V no additional 3 rd output possible
SA3	output 3 = continuous output 0(4)..20 mA
SV3	output 3 = continuous output 0..10 V

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Product Information

Ordering code

GIR2002PID - 1. - 2. - 3. - 4. - 5.

1. Supply voltage	
230A	230 V AC (standard)
012D	12 V DC
024D	24 V DC
024A	24 V AC
115A	115 V AC
2. Output 1	
R1	output 1 = relay switching output, normally-close contact (standard)
H1	output 1 = control output for semiconductor relay
SA1	output 1 = continuous output 0(4)..20 mA (no 3 rd output possible)
SV1	output 1 = continuous output 0..10 V (no 3 rd output possible)
3. Output 2	
R2	output 2 = relay switching output, change-over contact (standard)
H2	output 2 = control output for semiconductor relay
4. Output 3	
00	no 3 rd output (standard)
R3	output 3 = relay switching output, change-over contact
H3	output 3 = control output for semiconductor relay
N3	output 3 = NPN switching output
AA3	output 3 = analog output 0(4)..20 mA
AV3	output 3 = analog output 0..10 V
SA3	output 3 = continuous output 0(4)..20 mA
SV3	output 3 = continuous output 0..10 V
5. Options	
00	without option
PI	sealing to increase protection class to IP65

Accessories

- **EAK 36**
Unit stickers (black with white characters), 36 different units, for labeling of display devices