**Signal controller**

**2286**

- Multiple functions
- Programmable from front
- 3-digit LED display
- Analog or Pt100 input
- Relay outputs
- Max. 50% offset

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**Advanced features**

- Programmed via the user interface which consists of a 3-digit display and 3 function keys in the front panel.

**Application**

- PID on/off controller, PI step controller or 3-band controller with analog or Pt100 input.
- As trip amplifier with setpoint adjustment through external current / voltage signal with neutral zone surrounding the setpoint.

**Technical characteristics**

- The A and B channels can be freely programmed via the front keys and JP1 and JP2 to current in the range 0...20 mA or voltage in the range 0...10 VDC.
- Linearized Pt100 temperature input in the range -99...+850°C with 3-wire connection.
- PID on/off controller with accurate setting of the regulation parameters XP (proportional band), TI (integrating time) and TD (differentiating time).
- Functions include PI step and-band controller, dl/dt function and comparator or trip amplifier with an external setpoint.
- 2 relay outputs with a make contact connected to a common point.
- Relay outputs can be installed in PELV/SELV circuits.
- Mounting for a standard 11-pole socket which can be adapted for DIN rail or plate use with PR’s 7023 adaptor and 7024 mounting keying.
### Environmental Conditions

- **Operating temperature**: -20°C to +60°C
- **Calibration temperature**: 20...28°C
- **Relative humidity**: < 95% RH (non-cond.)
- **Protection degree**: IP50

### Mechanical specifications

- **Dimensions (HxWxD)**: 80.5 x 35.5 x 84.5 mm (D is without pins)
- **Weight approx.**: 140 g

### Common specifications

- **Supply**
  - **Supply voltage**: 19.2...28.8 VDC
  - **Max. required power**: 3 W
  - **Internal power dissipation**: 2.5 W

- **Isolation voltage**
  - **Isolation voltage, test / working**: 3.75 kVAC / 250 VAC
  - **PELV/SELV**: IEC 61140

- **Response time**
  - **Response time**: < 60 ms
  - **Signal / noise ratio**: Min. 60 dB
  - **Signal dynamics, input**: 20 bit
  - **Effect of supply voltage change**: < ±0.002% of span / %V
  - **Proportional band (XP)**: 0.01...999%
  - **Gain, 1/XP =**: 0.1...10000
  - **Integrating time (TI)**: 0...999 s
  - **Differentiating time (TD)**: 0...999 s
  - **Neutral zone (nEU)**: 0...99.9 %
  - **Pulse time (TP)**: 0.01...400 s
  - **Min. pulse time (TP)**: 0.01...10 s
  - **Auxiliary voltages: Reference voltage**: 2.5 VDC ±0.5% / 15 mA
  - **Temperature coefficient**: < ±0.01% of span / °C
  - **Linearity error**: < 0.1% of span
  - **EMC immunity influence**: < ±0.5%

### Input specifications

- **Common input specifications**
  - **Max. offset**: 50% of selected max. value

- **Current input**
  - **Measurement range**: 0...20 mA
  - **Min. measurement range (span)**: 4 mA
  - **Input resistance**: 50 Ω

- **Voltage input**
  - **Measurement range**: 0...10 VDC
  - **Min. measurement range (span)**: 200 mV
  - **Input resistance**: Nom. 10 MΩ

- **RTD input**
  - **RTD type**: Pt100 (2286B)
  - **Cable resistance per wire**: 25 Ω (max.)
  - **Sensor current**: Nom. 1.25 mA

### Output specifications

- **Relay output**
  - **Relay functions**: Setpoint
  - **Max. voltage**: 250 VRMS
  - **Max. current**: 2 AAC

Max. AC power: 500 VA
Max. load at 24 VDC: 1 A
of span = of the presently selected range

### Observed authority requirements

- **EMC**: 2014/30/EU
- **LVD**: 2014/35/EU
- **EAC**: TR-CU 020/2011