



Universal Converters

The 4000 series

ADDING VALUE TO FACTORY AND PROCESS AUTOMATION



display



I.S. interfaces



isolation

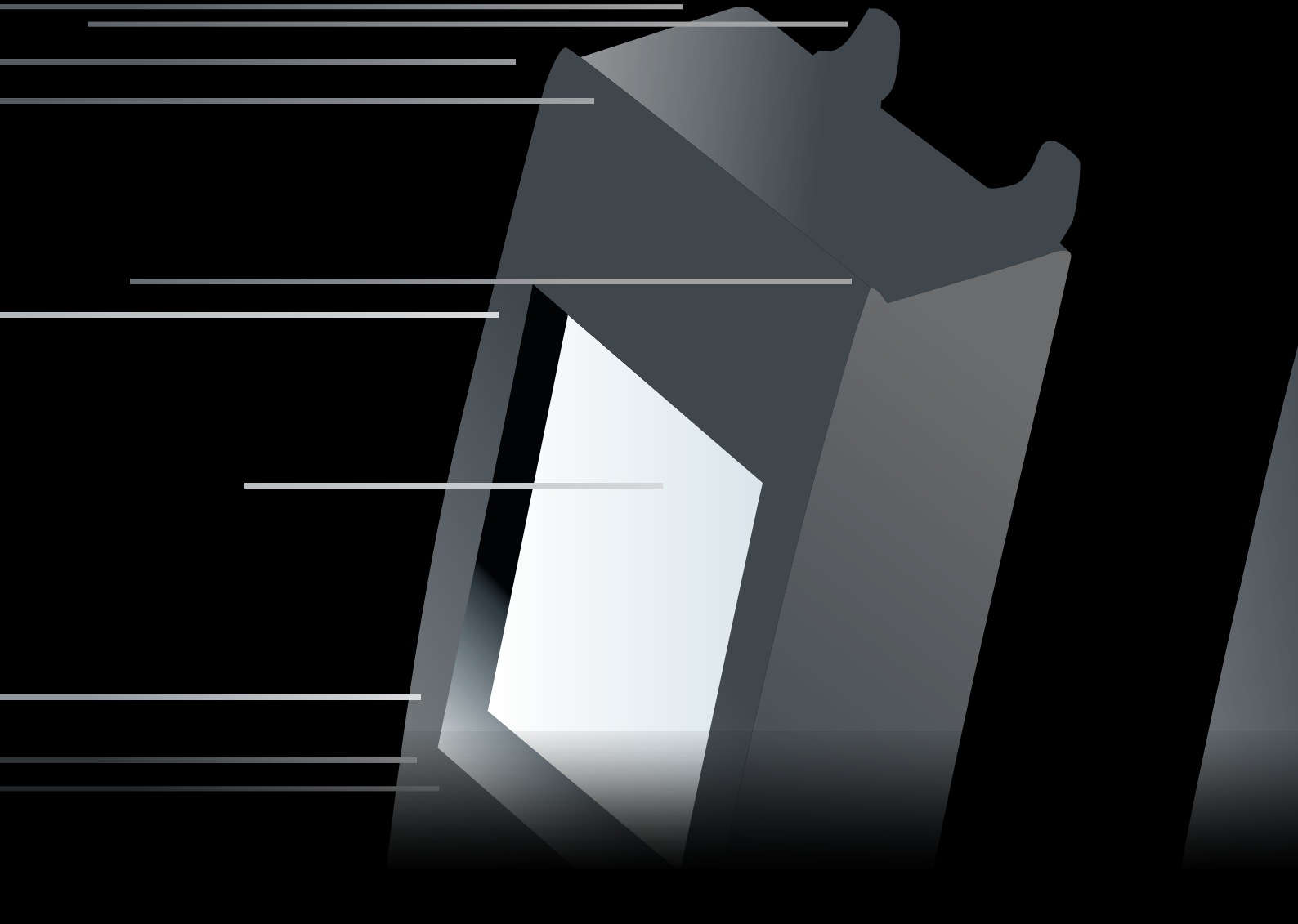


temperature



universal





Efficiency in focus

The process industry puts a constant focus on efficiency. In this connection reliable and extremely precise signal conditioning is an absolutely essential prerequisite. For more than 35 years the committed mission of PR electronics has been to guarantee the best and most dependable signal conditioning. Thus, today, PR electronics is one of the few companies who back every product with a 5-year product guarantee.

A new generation of PR modules

The PReasy 4000 series is the latest example of reliable modules from PR electronics. PReasy is designed to achieve the optimally efficient process, and we have focused on the following 3 characteristics in order to meet user needs:

- Universal – User-friendly – Reliable



The flexible solution

A high degree of flexibility in the new 4000 series has been a must for PR electronics. The detachable front programming unit ensures a high level of information and a comprehensive view of the process. Easy configuration and modification is ensured by the advanced help text, guiding the user effortlessly through the menu structure.

Just in time

The PReasy 4000 modules are the result of PR electronics' market knowledge and innovative product development. Development, test and production of our new modules have been carried out at the production facilities in the Danish headquarter which is optimized for day-to-day delivery of all PR modules.

Universal 4 product variants cover hundreds of applications

In all aspects of the design PR electronics has focused on the universality of the new 4000 series. Hence, the 4 product variants cover hundreds of applications, resulting in reduced stock as well as increased flexibility and competitiveness:

- Universal supply voltage of 21.6...253 VAC / 19.2...300 VDC.
- Universal input module for the connection of mA, V, Pt100, TC, lin. R and potentiometer.
- 2-point process calibration.
- 2-wire supply and reference for potentiometer measurements.
- Universal programming by way of the display front 4501, which recognizes the module type in question and adapts the menu structure accordingly.
- In the addition to the setpoint and window relay functions, the 4116 and 4131 feature a "latch" function for applications where alarms must be reset manually.



The detachable display front 4501 allows the user to copy the configuration to other modules

User-friendly multilingual help texts

The communication between user and module is characterized by its simplicity and thus the configuration can be carried out without a detailed manual. The following features optimize the usability of the PReasy 4000 series:

- The menu is easily understandable as the scrolling help text guides the user through all the configuration steps.
- The help texts are available in 7 language versions: English, German, French, Spanish, Italian, Swedish and Danish.
- All configuration options can be selected from the display front without the need of a PC, DIP-switches, jumpers or special tools.
- The front programming unit can be used to display process values and copy the configuration to other modules. At the same time, the display front provides access to the sophisticated, yet simple, menu structure.

The alphanumerical display ensures easy readability of the process information



Reliable 5-year product guarantee

Product reliability has always been one of the key words at PR electronics. Securing customer processes also includes the elimination of potential risks in connection with e.g. mounting errors or general mishandling, which may occur in stressful situations. In addition to our usual 5-year product guarantee, the PReasy 4000 series integrates the following protection features:

- 2.3 kVAC galvanic isolation between input, supply, relays and analog output.
- Sophisticated sensor error detection with alarm function by way of the relays or the analog output.
- Process simulation by way of the relays or the analog output.
- Password protection against unauthorized changes to the configuration.
- 4114 and 4116 are suitable for SIL 2 applications (the built-in safety readback on the mA output must be actively selected in the menu).
- The 4000 modules comply with UL 508, NAMUR 21 (burst), NE43 (sensor error) and LVD.
- Optional internal CJC or CJC connector (accessory, PR type 5910) for 4114, 4116 and 4131.

The sophisticated design of 4114 and 4116 makes the modules suitable for application in SIL 2 circuits



Universal

User-friendly

Reliable



Easy configuration

The 4000 series can be delivered pre-configured from factory, but the display front provides access to advanced configuration directly in the process.

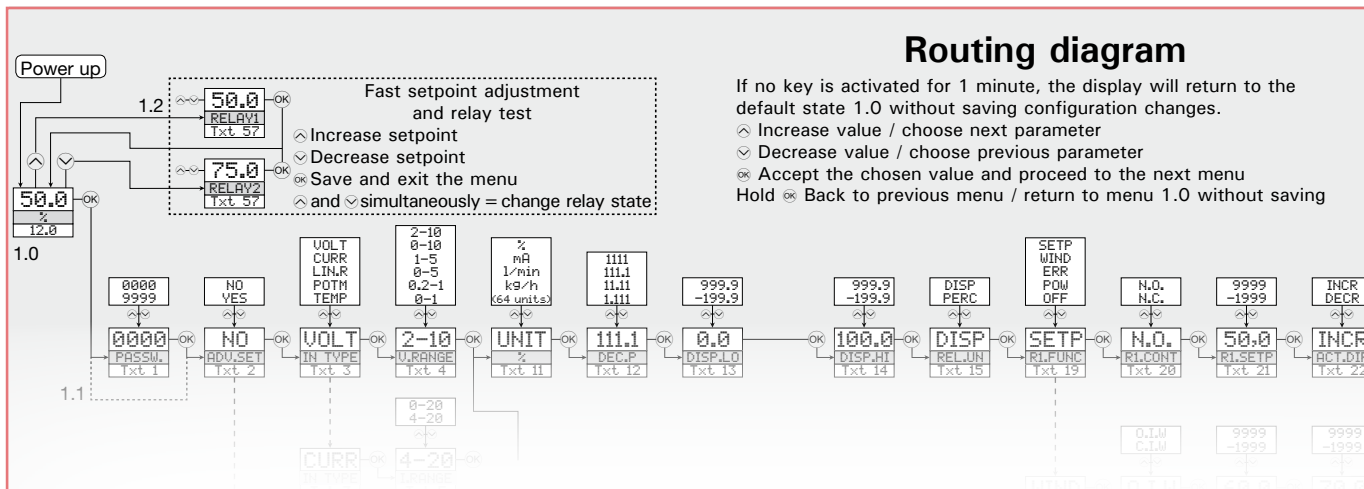
Environmentally sound design

The new transmitter series conforms to the requirements of the RoHS and WEEE directives.

SIL2

PR
RoHS

The elegantly designed display front provides quick access to the menu



Specifications:

	4114	4116	4131	4222
mA input: 0 / 4...20 mA	✓	✓	✓	✓
V input: 0/0.2...1; 0/1...5; 0/2...10 VDC	✓	✓	✓	✓
Pt100: 2-, 3- and 4-wire	✓	✓	✓	✓
TC types: B...W5	✓	✓	✓	✓
Potentiometer: 10 Ω...100 kΩ	✓	✓	✓	✓
Linear resistance: 0 Ω...10 kΩ	✓	✓	✓	✓
2 x relay: 250 VRMS / 2 A		✓	✓	
mA output: 0 / 4...20 mA / 800 Ω	✓	✓		
V output: 0/0.2...1; 0/1...5; 0/2...10 VDC	✓	✓		
Frequency output: PNP, NPN, TTL, 0...25 kHz				✓

■ Input

■ Output



The simple and easily understandable menu structure makes for effortless configuration. Besides standard configuration of input, output and relays, the display front provides access to several other functionalities such as display configuration, process calibration, simulation mode function and much more.

Signals the Best

Around the world, PR electronics helps create increased efficiency and safety via industrial signal conditioning. The means to achieve this is reliable, flexible and user-friendly devices, thorough technical documentation, fast delivery and competent technical support – in short, all aspects which are of importance to our customers.



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