



PDTA7838

Programmable Dual Trip Alarm

- **11-pin box for DIN-rail mounting**
- **Bright 3-digit 10 mm LED display**
- **Universal linear input**
- **Up to 2 alarm relays available with pulsed output**
- **Auxiliary output for powering external transmitters**
- **Fully programmable parameters**



Function

PDTA7838 is a programmable process trip alarm for DIN-rail mounting. Equipped with a bright 3-digit LED display, this model is especially suitable for measuring and controlling various technological values from -199 to 999 with resolution of up to 1000 points. The device can have up to 2 programmable relays providing on/off control/alarm with or without pulse mode. PDTA7838 accepts various linear input voltage or current signals from 2- and 3-wire transmitters that can be powered internally via the auxiliary power supply output. The display-to-input correspondence, decimal point position, measurement offset value as well as many other parameters are fully programmable. Thanks to its excellent price-to-performance ratio, PDTA7838 is an exceptionally widely applicable device.

Specifications

Construction: Plug-in to standard 11-pole relay socket
Wiring: Screw terminals on base socket
Housing material: Plastic
Isolation: Input to output to supply
Set point: -199 to 999 programmable

INPUT

Current: 0 (4) -20mA (-199 to 999 programmable)
Voltage: 0 (5) – 10V (-199 to 999 programmable)

OUTPUT

Relay: 5A/250V w/ NO/NC or NO contact NO for the second relay
SSR: 12...30 VDC, 15 mA
Control algorithm: ON/OFF, Pulse mode
Alarm parameters: Programmable
Auxiliary output: 12...30 VDC, 30 mA, for transmitter power supply

INSTALLATION

Supply: 230, 115, 24VAC $\pm 10\%$ 48-62Hz 24VDC $\pm 10\%$
Operating temp: -10 to +65°C (-4 to +140°F)
Operating humidity: 80% RH max (non-condensing)
Mounting: In 11-pin socket or on DIN rail
Protection: IP44
Size: W35 x H78 x D91mm with socket
Weight: 180g

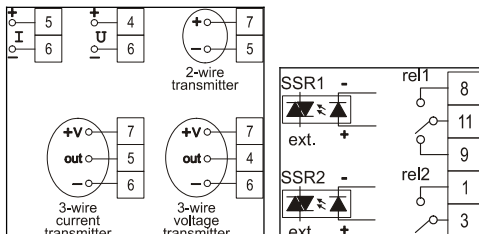
PERFORMANCE (% of span)

Measurement error: $< \pm 0.3\%$
Temperature drift: $\pm 0.02\%$ from span for 1°C
Digital display: 3 digit LED, height 10mm
LED: 2 LED for relay status
Keyboard: 3 lockable membrane keys
Dielectric strength: 4000VAC @ 1 minute
Isolation: Input to output to supply
1500VDC/AC

Observed authority requirements : CE-marking
Electromagnetic compatibility: Complies with EN
50081-1, EN 50082-2, EN 61010-1



Connection



Mounting

PDTA7838 can be easily mounted on every 35 mm rail conforming to EN50022 by the means of a standard UNDECAL socket base.

Input signal wiring

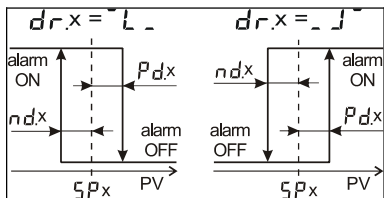
Connect the input with regard to its type (see 'Specifications') through the respective socket-base terminals.

Output wiring

Connect the outputs with regard to their types (see 'Specifications') via the respective terminals.

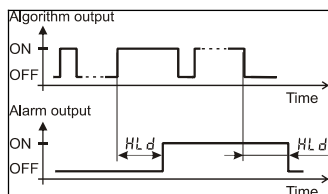
Power supply wiring

Connect the right power supply voltage for your device (see 'Specifications') via terminals 2 and 10.



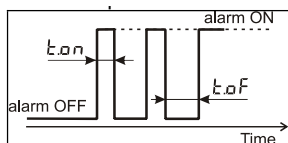
ON/OFF control algorithm

The static characteristic of an alarm relay controlled by an ON/OFF algorithm is shown on the left drawing.



Output hold

For eliminating undesirable switches of the alarm output K1, additional parameter (Hold) is assigned to hold the output reaction for certain period of time.



Output pulse mode

When the alarm output K1 is forced to ON by the control algorithm, it can either stay ON or pulse depending on Time On and Time Off parameter values. Setting any of these parameters to '0' disables the Pulse mode.



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