

# Universal-Instrument MINIPAN 352V

## for DIN-rail-mounting

### MINIPAN 352V



With its 4 digit, 14 mm high display, Digital Panelmeters of MINIPAN 352V- series allow the accurate display of different values in the range -1999 ... +9999.

Measuring inputs AC (True RMS), DC current and voltage and measuring of resistance and of temperatures with various sensors are combined in one instrument.

Two programmable switching points allow applications as limit-switch or 2- or 3-point controller.

With **EasyLimit** the switching points can be set easily. Other parameters are blocked and thus protected from unintended manipulation.

With its analog output (option) it is in addition a measuring-transducer.

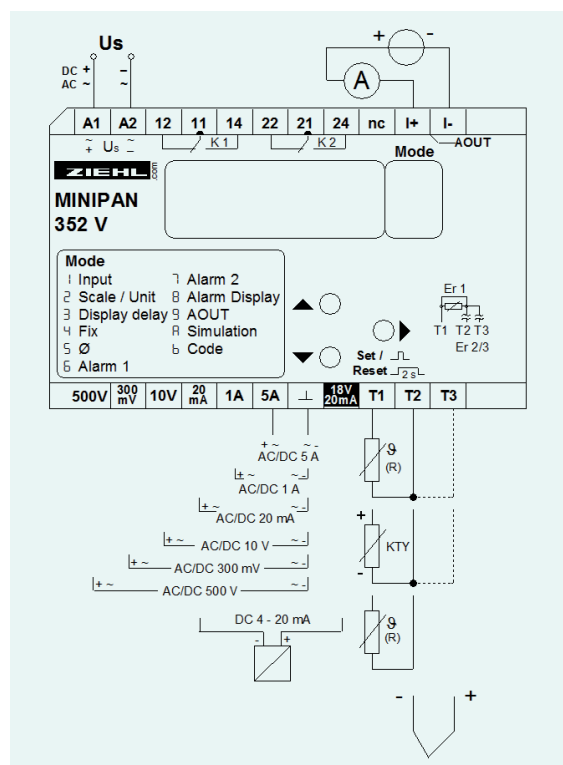
The display can be easily programmed by the user (e.g. input DC 4-20 mA / display 0-350.0 m/s or 0...200  $\Omega$  / 0...3000 mm or AC 0-5 A / 0-400.0 A).

In addition the built-in universal power-supply AC/DC 24-240 V makes it even more versatile.

- Temperature:
  - Pt 100 (RTD) , Pt 1000, KTY 83 and KTY 84 in 2- or 3-wire connection
  - Thermocouples type B, E, J, K, L, N, R, S, T
  - Measuring range -170 ... +1820 °C
  - Resolution 0.1 °C (up to 999.9 C)
  - Display in °C or °F
- AC/DC-measuring inputs:
  - 300 mV for measuring current with external shunt
  - 1 and 5 A for direct measuring of current (or AC with external transformer)
  - 500 V
  - 10 V for standard signals
  - 20 mA for standard signals
  - AC-measuring TrueRMS

- Measuring of resistance:
  - Range 0...500  $\Omega$
  - Range 0...30 k $\Omega$
- Easy programming with 3 buttons and supporting display:
  - Display (zero, fullscale, decimal point)
  - 2 switching points with hysteresis and delays
  - **EasyLimit** for easy setting of alarms
  - Switching with automatic reset or interlocked
  - MIN/MAX-contacts or operating-/closed current mode of relays
  - Storage of MIN- and MAX-values
  - Average of multiple measurements
  - Simulation of operation
  - Code-lock against manipulation of settings
- Outputs 2 potential-free change-over contacts (co)
- Supply-voltage for external measuring transducer 4-20 mA
- Sticker with different measuring units included
- Terminals pluggable
- Mounting dimensions 72x72 mm
- Supply-voltage AC/DC 24-240 V
- Option: analog output 4...20 mA (insulated when externally supplied)

Order-numbers: D340101  
D340110 (with analog output)



## Technical Data MINIPAN 352V

Power supply	Rated supply-voltage $U_s$	AC/DC 24-240 V
	Tolerance DC	DC 20 - 297 V (0,85 x 24 V...1,35 x 220 V)
	Tolerance AC	AC 20 - 264 V (0,85 x 24 V...1,1 x 240 V)
	Power consumption	< 5 VA
	Frequency	48...62 Hz
Measuring inputs		potentially separated from supply-voltage (always connect 1 input only at the same time)
	DC-measuring	<b>± 300 mV</b> / 29 kΩ / max. ±2,5 V
	Measuring-range / input-	<b>± 10.00 V</b> / 1 MΩ / max. ±50 V
	Resistance / overload capacity	<b>± 500.0 V</b> / 3 MΩ / max. ±600 V <b>± 20.00 mA</b> / Shunt 8 Ω / max. ±100 mA <b>± 1.00 A</b> / Shunt 150 mΩ / max. ±2 A <b>± 5.00 A</b> / Shunt 30 mΩ / max. ±7,5 A for 10 s
	AC-measuring	<b>300 mV</b> / 20 kΩ / max. 2,5 V
	Measuring-range / input-	<b>10.00 V</b> / 1 MΩ / max. 50 V
	Resistance / overload capacity	<b>500.0 V</b> / 3 MΩ / max. 600 V <b>20.00 mA</b> / Shunt 8 Ω / max. 100 mA <b>1.00 A</b> / Shunt 150 mΩ / max. 2 A <b>5.00 A</b> / Shunt 30 mΩ / max. 7,5 A for 10 s
	Messuring of resistance	0...500 Ω 0... 30 kΩ
	Temperature-measuring	<b>- 199,9 ... + 850,0 °C</b> (= -328 ... +1563 °F)
	Sensor-input	Pt 100, Pt 1000, KTY 83, KTY 84, 2- or 3-wire connection, line-resistance max. 3x 50 Ω
Thermocouples	B, E, J, K, L, N, R, S, T	
	Measuring time DC	< 300 ms x Ø
	Measuring time AC	< 700 ms + 300 ms x Ø
	Measuring time temperature + Resistance	< 600 ms (3-wire + thermocouple) < 300 ms (2-wire)
Output	Relay output	Typ 2, see "general technical informations" 2x1 change-over) contact
	Analog output	4-20 mA (insulated when externally supplied)
	Supply-voltage for loop-powered measuring transducer and analog output	DC 15-20 V / max. 45 mA
Accuracy	Resolution	-1999 / +9999
	Error DC (of FullScale)	± 0,1 % ± 1 Digit ± 0,02 % K
	Error AC (of FullScale)	± 0,5 % ± 1 Digit ± 0,05 % K
	Error resistance (of value)	500 Ω: 0,2 % ± 0,5 Ω 30 kΩ: 0,5 % ± 2 Ω
	Error Pt 100 (of value)	± 0,2 % ± 0,5 K ± 0,04 °C/K
Housing	Housing	V4
	Dimensions (h x w x d) mm	90 x 70 x 58 mm
	Attachment	on 35 mm DIN rail according to EN 60 715 or with 2 screws M4 (option)
	Ambient temperature range	-20...+60 °C
	Protection housing	IP 30
	Protection terminals	IP 20
	Weight	approx. 190 g