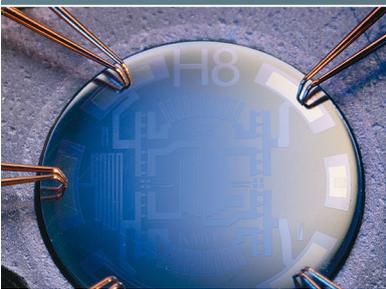Pioneering new technologies

STW ®

Sensor-Technik Wiedemann GmbH
Mobile Controllers and Measurement Technologies

ETC *Tect Electronics*
The authorized distributor in the Greater China Region

Pressure Panel Meter TPA 51

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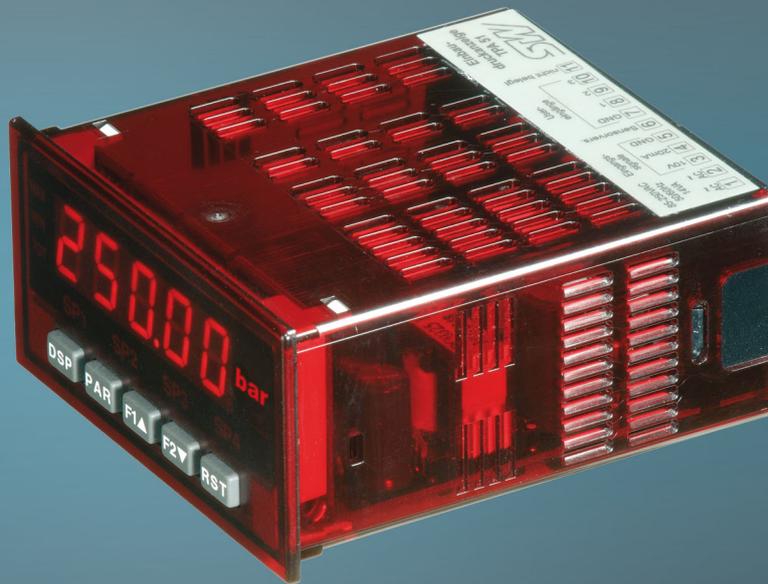
General Function

The standard version of the pressure panel meter TPA 51 is designed to display norm signals of 0/4-20 mA and 0 - 10 V. The display range and even the input signal may be quickly and simply selected with front side buttons. Optional cards (may be easily slot mounted at a later date by customer) provide the possibility to configure the meter with an integrated pressure switch, or RS-232 or RS-485 interfaces in addition to an analog output. With a resolution of 16 bit as well as a fast measurement time of 50 ms, the meter ist flexibly suited for almost any application.

Characteristics

• Enivromental protection IP 65
• Optional analog output 0/4-20 mA or 0-10 V
• Optional 2 or 4 limit switches
• Programmable switching hysteresis
• Illuminated filed display the unit
• Memory for min and max values, sum counter
• Configuration software for PC included

Ordering Code

Typ	Options	Supply
TPA 51	-sa (analog output)	230 V AC
	-GW2 (2 double-throw contact 5A)	24 V DC
	-GW4 (4 closer 3A)	
	-s2 (RS-232 Half-Duplex)	
	-s4 (RS485 Multipoint)	
	-st (Start-Pack)	

Technical specifications

Housing	panel mount version	96 x 48 x 104 mm with support frame
Panel cut-out	(w x h)	92 x 45 tol. +0.5 mm
Protection classification	front/rear	IP 65/IP 20
Operation Condition	Operating temperature	0 ... +50°C
	Storage temperature	-20 ... +60°C
	Rel. humidity	0 ... 85% non-condensing
Input	Current/Voltage	0/4-20 mA, 0-10 V
Accuracy	and resolution	0.03%, 16 bit
Reaction time		0.2 s for display of 99% final value
Display	7 segment	-19999 ... 99999
Sensor supply	short circuit protection	approx. 24 V, max. 50 mA
Supply voltage	AC	230 V, 50 Hz, approx. 18 VA
	DC	24 V ± 10%, max. 0.5 A
Linearization		max. 16 points
Mode selection		with buttons on front side
		with RS232-interface (if present, and using TPA 51 configuration software)
EMC		EN 61000-6-2 and EN 61000-6-3

Options

analog output -sa
• Programmable using buttons or RS232-interface
• Output signals: 0/4-20 mA or 0-10 V
• Accuracy: 0.17% (18-28°C) resp. 0.4% (0-50°C)
• Resolution: 1/3500
• Loading: voltage output: 10 kΩ
　　　　　　 current output max. 500 Ω

2 limit switches -GW2
• 2 relays with double pole contacts
• Breakdown isolation: 2kV for 1 min compared to ground of
  sensor supply and to user inputs
• Contact rating: 5A, 120/240 VAC or 28 VDC
　　　　　　　　　 sum of the two relays - 5A
• Lifetime: min. 100,000 cycles at maximum loading

4 limit switches -GW4
• 4 relays with single closing contacts
• Breakdown isolation: 2.3kV for 1 min compared to ground of
  sensor supply and to user inputs
• Contact rating: 3A, 120/240 VAC or 28 VDC
　　　　　　　　　 sum of the four relays - 4A
• Lifetime: min. 100,000 cycles at maximum loading

RS232-interface -s2
• baud rate: 300, 600, 1200, 2400, 9600, 19200
• word length: 7 or 8 data bit
• Parity: no, even, odd
• Half-duplex

RS485-interface -s4
• Baud rate: 300, 600, 1200, 2400, 9600, 19200
• word length: 7 or 8 data bit
• Parity: no, even, odd
• Addresses: 0 ... 99
• Max. transmission distance: 130 m
• Max. number of devices on bus: 32
• Multipoint

Start-pack -st
• Consists of: RS232-interface -s2
　　　　　　　　 Configuration software
　　　　　　　　 Data cable (approx. 1.5 m)
• For programming of the pressure meter
  using a PC

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