

VacTest

Digital Transmitter Pirani DTP 400



The Digital Transmitter DTP 400 is an extremely reliable Pirani vacuum gauge based on the latest generation of micro-controller architecture. Equipped with a robust spiral coil filament, this transmitter provides a wide range of pressure measurement from atmosphere to $1 \cdot 10^{-4}$ mbar.

- Protected and robust spiral coil filament
- Fully customizable parameters and output signal for easy integration
- Optional display version (DTP 400 D)
- 0–10 V signal and RS485 interface
- Bake-out up to 150°C without electronics removal
- 2 setpoint relays as standard
- Plug and play sensor replacement



VacTest DTP 400

VacTest DTP 400 D

Technical data		DTP 400, DTP 400 D
Measurement principle		Pirani
Materials exposed to vacuum		Stainless steel 1.4307, nickel, tungsten, glass
Filament material		Tungsten
Measurement range	mbar	1000– $1 \cdot 10^{-4}$
Overpressure limit	bar abs.	10
Measurement uncertainty	% of reading	< 30% (1000–20 mbar)
		< 10% ($20-2 \cdot 10^{-3}$ mbar)
		< factor 2 (< $2 \cdot 10^{-3}$ mbar)
Repeatability of measurement	% of reading	$\pm 2\%$ ($20-2 \cdot 10^{-3}$ mbar)
Leakage rate	mbar·l/s	< $5 \cdot 10^{-10}$
Reaction time	ms	< 40
Serial interface		RS485
Electrical connection		D-Sub, 15 poles, male
Supply voltage	V	20–30
Max. power consumption	W	2.5 / 0.8 (relays / display)
Output signal		0–10 V, RS485
Setpoint relay		2 dry contacts
Relay contact rating		2A, 50VAC / 2A, 30VDC, max. 60 VA
Operating temperature	°C	+5...+60
Max. bake-out temperature	°C	150
Protection class		IP40 (IP54 with appropriate D-Sub connector)
Approximate weight	g	190
Dimensions (L x W x H)	mm	45 x 66 x 99
Vacuum connection		DN 16 ISO-KF

Vacuum gauges	Part number
DTP 400, DN 16 ISO-KF	0656202932
DTP 400 D, with display, DN 16 ISO-KF	0656202933

Spare parts	Part number
Spare sensor, DN 16 ISO-KF	0680204596

Controllers	Part number
Active Sensor Controller CTR 002, 2 channels	0656202928
Active Sensor Controller CTR 004, 4 channels	0656202929
Power cord	0659930583

Connection	Part number
Connecting cable 2 x D-Sub 15 poles, 2 m	0671204577
Connecting cable 2 x D-Sub 15 poles, 6 m	0671204578
Connecting cable 2 x D-Sub 15 poles, 10 m	0671204580
Connecting cable 2 x D-Sub 15 poles, 20 m	0671204581
RS485 Interface converter to Bluetooth	0680204592
RS485 Interface converter to USB	0671204593
Power supply 100–240 VAC / 50–60Hz, with EU/US/UK/AUS plugs	0671204594

Software	Part number
VacTest explorer, Pro version	0870203191

For the entire product range please refer to the corresponding leaflets.

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Technical data is subject to change. Created in Germany. MG SPAL VACTESTDTP400 USen 06/2018 8BA