

VACTEST DPH 400 / DPH 400 D



Intelligent

Extended measurement range (1000 to $5 \cdot 10^{-10}$ mbar), state-of-the-art microcontroller technology, fully customizable parameters

Reliable

High industrial standards, robust design, Bayard-Alpert principle with double filaments for extended lifetime and high reliability

Efficient

Modular design, plug and play sensor for maximum uptime

Accessories

- Replacement sensor
- Active Sensor Controller
- Connecting cable
- RS485 interface converter to Bluetooth
- RS485 interface converter to USB
- Electrical power supply
- Calibration certificate
- VACTEST Explorer Pro

VACTEST DPH 400 / DPH 400 D



Dimensional drawing

The following technical values refer to ISO Hz

	VACTEST DPH 400 (A)	VACTEST DPH 400 (B)	VACTEST DPH 400 (C)
Measurement principle	Pirani / Bayard-Alpert	Pirani / Bayard-Alpert	Pirani / Bayard-Alpert
Materials exposed to vacuum	Stainless steel 1.4307, Ni, W, Pt, yttrium coated iridium, glass	Stainless steel 1.4307, Ni, W, Pt, yttrium coated iridium, glass	Stainless steel 1.4307, Ni, W, Pt, yttrium coated iridium, glass
Number of filaments	1 (Pirani) / 2 (Bayard-Alpert)	1 (Pirani) / 2 (Bayard-Alpert)	1 (Pirani) / 2 (Bayard-Alpert)
Filament material	Tungsten (Pirani) / yttrium coated iridium (Bayard-Alpert)	Tungsten (Pirani) / yttrium coated iridium (Bayard-Alpert)	Tungsten (Pirani) / yttrium coated iridium (Bayard-Alpert)
Display	Without display	Without display	Without display
Measurement range	1000–5 · 10 ⁻¹⁰ mbar	1000–5 · 10 ⁻¹⁰ mbar	1000–5 · 10 ⁻¹⁰ mbar
Overpressure limit	4 bar abs.	4 bar abs.	4 bar abs.
Measurement uncertainty	< 30% of reading (1000–10 mbar), < 10% of reading (10–1 · 10 ⁻⁸ mbar)	< 30% of reading (1000–10 mbar), < 10% of reading (10–1 · 10 ⁻⁸ mbar)	< 30% of reading (1000–10 mbar), < 10% of reading (10–1 · 10 ⁻⁸ mbar)
Repeatability of measurement	±2% of reading (10–1 · 10 ⁻² mbar), ±5% of reading (1 · 10 ⁻² –1 · 10 ⁻⁸ mbar)	±2% of reading (10–1 · 10 ⁻² mbar), ±5% of reading (1 · 10 ⁻² –1 · 10 ⁻⁸ mbar)	±2% of reading (10–1 · 10 ⁻² mbar), ±5% of reading (1 · 10 ⁻² –1 · 10 ⁻⁸ mbar)
Leakage rate	< 5 · 10 ⁻¹⁰ mbar · l/s	< 5 · 10 ⁻¹⁰ mbar · l/s	< 5 · 10 ⁻¹⁰ mbar · l/s
Reaction time	< 50 ms	< 50 ms	< 50 ms
Serial interface	RS485	RS485	RS485
Electrical connection	D-Sub, 15 poles, male	D-Sub, 15 poles, male	D-Sub, 15 poles, male
Supply voltage	20–30 V	20–30 V	20–30 V
Max. power consumption	9 W (relays)	9 W (relays)	9 W (relays)
Output signal	0–10 V, RS485	0–10 V, RS485	0–10 V, RS485
Setpoint relay	2 dry contacts	2 dry contacts	2 dry contacts
Relay contact rating	2A, 50 VAC / 2A, 30 VDC, max. 60 VA	2A, 50 VAC / 2A, 30 VDC, max. 60 VA	2A, 50 VAC / 2A, 30 VDC, max. 60 VA
Operating temperature	+5 ... +60 °C	+5 ... +60 °C	+5 ... +60 °C
Max. bake-out temperature	180 °C	180 °C	180 °C
Weight approx.	475 g	475 g	475 g

VACTEST DPH 400 / DPH 400 D



	VACTEST DPH 400 (A)	VACTEST DPH 400 (B)	VACTEST DPH 400 (C)
Dimensions (L x W x H)	45 × 66 × 141 mm	45 × 66 × 141 mm	45 × 66 × 141 mm
Vacuum connection	DN 25 ISO-KF	DN 40 ISO-KF	DN 40 CF-F

The following technical values refer to ISO Hz

	VACTEST DPH 400 D (A)	VACTEST DPH 400 D (B)
Measurement principle	Pirani / Bayard-Alpert	Pirani / Bayard-Alpert
Materials exposed to vacuum	Stainless steel 1.4307, Ni, W, Pt, yttrium coated iridium, glass	Stainless steel 1.4307, Ni, W, Pt, yttrium coated iridium, glass
Number of filaments	1 (Pirani) / 2 (Bayard-Alpert)	1 (Pirani) / 2 (Bayard-Alpert)
Filament material	Tungsten (Pirani) / yttrium coated iridium (Bayard-Alpert)	Tungsten (Pirani) / yttrium coated iridium (Bayard-Alpert)
Display	With display	With display
Measurement range	1000–5 · 10 ⁻¹⁰ mbar	1000–5 · 10 ⁻¹⁰ mbar
Overpressure limit	4 bar abs.	4 bar abs.
Measurement uncertainty	< 30% of reading (1000–10 mbar), < 10% of reading (10–1 · 10 ⁻⁸ mbar)	< 30% of reading (1000–10 mbar), < 10% of reading (10–1 · 10 ⁻⁸ mbar)
Repeatability of measurement	±2% of reading (10–1 · 10 ⁻² mbar), ±5% of reading (1 · 10 ⁻² –1 · 10 ⁻⁸ mbar)	±2% of reading (10–1 · 10 ⁻² mbar), ±5% of reading (1 · 10 ⁻² –1 · 10 ⁻⁸ mbar)
Leakage rate	< 5 · 10 ⁻¹⁰ mbar · l/s	< 5 · 10 ⁻¹⁰ mbar · l/s
Reaction time	< 50 ms	< 50 ms
Serial interface	RS485	RS485
Electrical connection	D-Sub, 15 poles, male	D-Sub, 15 poles, male
Supply voltage	20–30 V	20–30 V
Max. power consumption	9 / 0.8 W (relays / display)	9 / 0.8 W (relays / display)
Output signal	0–10 V, RS485	0–10 V, RS485
Setpoint relay	2 dry contacts	2 dry contacts
Relay contact rating	2A, 50 VAC / 2A, 30 VDC, max. 60 VA	2A, 50 VAC / 2A, 30 VDC, max. 60 VA
Operating temperature	+5 ... +60 °C	+5 ... +60 °C
Max. bake-out temperature	180 °C	180 °C
Weight approx.	475 g	475 g

VACTEST DPH 400 / DPH 400 D



	VACTEST DPH 400 D (A)	VACTEST DPH 400 D (B)
Dimensions (L x W x H)	45 × 66 × 141 mm	45 × 66 × 141 mm
Vacuum connection	DN 25 ISO-KF	DN 40 ISO-KF

Do you want to know more

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