

# VACTEST DPH 400

Digital transmitter



**VACUUM SOLUTIONS**

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## 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, spare parts and options

- 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

# VATEST DPH 400

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|                              | VATEST DPH 400                                                                                                  | VATEST DPH 400                                                                                                  | VATEST DPH 400                                                                                                  |
|------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 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)                                                      |
| Measurement range            | 1000–5 · 10 <sup>-10</sup> mbar                                                                                 | 1000–5 · 10 <sup>-10</sup> mbar                                                                                 | 1000–5 · 10 <sup>-10</sup> 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 <sup>-8</sup> mbar)                                | < 30% of reading (1000–10 mbar), < 10% of reading (10–1 · 10 <sup>-8</sup> mbar)                                | < 30% of reading (1000–10 mbar), < 10% of reading (10–1 · 10 <sup>-8</sup> mbar)                                |
| Repeatability of measurement | ±2% of reading (10–1 · 10 <sup>-2</sup> mbar), ±5% of reading (1 · 10 <sup>-2</sup> –1 · 10 <sup>-8</sup> mbar) | ±2% of reading (10–1 · 10 <sup>-2</sup> mbar), ±5% of reading (1 · 10 <sup>-2</sup> –1 · 10 <sup>-8</sup> mbar) | ±2% of reading (10–1 · 10 <sup>-2</sup> mbar), ±5% of reading (1 · 10 <sup>-2</sup> –1 · 10 <sup>-8</sup> mbar) |
| Leakage rate                 | < 5 · 10 <sup>-10</sup> mbar · l/s                                                                              | < 5 · 10 <sup>-10</sup> mbar · l/s                                                                              | < 5 · 10 <sup>-10</sup> 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                                                                                                           |
| Dimensions (L x W x H)       | 45 x 66 x 141 mm                                                                                                | 45 x 66 x 141 mm                                                                                                | 45 x 66 x 141 mm                                                                                                |
| Vacuum connection            | DN 25 ISO-KF                                                                                                    | DN 40 ISO-KF                                                                                                    | DN 40 CF-F                                                                                                      |
| Display                      | Without display                                                                                                 | Without display                                                                                                 | Without display                                                                                                 |

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Get in touch with us directly!  
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