

# Summary specifications

General	
Power requirements	100 to 240 VAC 50/60 Hz, 70 W max consumption
Operating temperature range	10 °C to 40 °C (50 °F to 104 °F)
Storage temperature range	-20 °C to 70 °C (-4 °F to 158 °F)
Vibration	Meets MIL-T-28800D
Weight	16.6 kg (36.5 lb)
Dimensions (HxWxD)	PPC4: 19 cm x 35 cm x 41 cm (7.5 in x 13.8 in x 16.1 in)
	PPC4-ui: 19 cm x 35 cm x 45 cm (7.5 in x 13.8 in x 17.7 in)
Remote communication interfaces	RS232 (COM1, COM2), USB (front panel)
	Optional: IEEE-488.2 or Ethernet and USB (Rear Panel)
Languages Supported (Advanced UI and cockpit software)	Chinese (simplified), Chinese (traditional), Czech, English, French, German, Italian, Japanese, Portuguese, Russian and Spanish
Pressure ranges	Vacuum to 14 MPa (2000 psi)
Operating medium	Any clean, dry, non-corrosive gas
Supply pressure	Maximum desired set pressure +70 kPa (10 psi)
Exhaust pressure	Atmosphere or vacuum for pressures under 5 psig (35 kPa gauge)
Pressure connections	Test (+), Test (-): 1/8 in NPT F
	Supply: 1/8 in NPT F
	Exhaust: 3/8 in NPT F
	ATM: 10-32 UNF
Pressure limits	Maximum working test pressure: 103% Hi Q-RPT maximum
	Maximum pressure on TEST port without damage: 115% Hi Q-RPT maximum
Utility sensor (if present)	Resolution: 0.001% of span
	Precision: 0.1% of span

Pressure measurement			
Warm up time	30 minute temperature stabilization recommended for best performance from cold power up		
Resolution	To 1 ppm, user adjustable		
Acceleration effect	±0.008% /g maximum, worst axis. Allows operation at ±20° from reference plane without significant effect		
Predicted one year stability <sup>1</sup>	±0.005% of reading (Gauge mode or Absolute mode with regular use of AutoZero)		
	Q-RPT Class (see page 11)		
	Full Scale Standard (f)	Standard (s)	Premium (p)
Precision <sup>2</sup>	±0.01% of AutoRanged span <sup>4</sup>	±0.008% of reading <sup>5</sup>	±0.005% of reading <sup>7</sup>
Measurement uncertainty <sup>3</sup>	±0.015% of AutoRanged span <sup>4</sup>	±0.01% of reading <sup>6</sup>	±0.008% of reading <sup>8</sup>

1. Predicted Q-RPT measurement stability limit (k=2) over one year assuming regular use of AutoZero function. AutoZero occurs automatically in gauge mode whenever vented, by comparison with barometric reference in absolute mode. Absolute mode predicted one year stability without AutoZ is ± (0.005% Q-RPT span + 0.005% of reading).
2. Combined linearity, hysteresis, repeatability. Add + 1 Pa (0.00015 psi) in gauge mode with an Axxx (absolute) Q-RPT for the resolution and short term stability of the on-board barometer.
3. Maximum deviation of the Q-RPT indication from the true value of applied pressure including precision, predicted one year stability limit, temperature effect and calibration uncertainty, combined and expanded (k=2) following the ISO "Guide to the Expression of Uncertainty in Measurement."
4. % of AutoRanged span, but with AutoRanged span no lower than 30% of Q-RPT span (10% with BG15K and G15K).
5. ±0.008% of reading from 30% to 100% of Q-RPT span. Below 30%; ±0.0024% of Q-RPT span.
6. ±0.01% of reading from 30% to 100% of Q-RPT span. Below 30%; ±0.0030% of Q-RPT span.
7. ±0.005% of reading from 30% to 100% of any AutoRanged span between 30% and 100% of maximum Q-RPT span. Below 30%; ±0.0015% of AutoRanged span, or 0.0005% of Q-RPT span, whichever is greater.
8. ±0.008% of reading from 30% to 100% of any AutoRanged span between 30% and 100% of maximum Q-RPT span. Below 30%; ±0.0024% of AutoRanged span, or 0.0007% of Q-RPT span, whichever is greater.

Note: DHI technical note 8050TN11 provides a detailed description of PPC4 Q-RPT uncertainties.

Pressure control, all ranges			
Modes and ready indication			
Static mode	Sets pressure to target within hold limit and shuts off control in a closed test volume. Pressure is "ready" when inside hold limit and stability test is met.		
Dynamic mode	Sets pressure within hold limit and continuously adjusts pressure to remain at target value. Pressure is "ready" when inside hold limit.		
Control parameters	Hold limit, stability limit (default values can be adjusted by user)		
Control performance			
Control precision	±4 ppm of active Q-RPT span or ±0.4 ppm of Hi Q-RPT span, whichever is greater.		
Lowest controllable pressure in dynamic mode	Gauge:	Zero set by automated venting. Lowest point above or below zero pressure in dynamic mode limited only by Q-RPT resolution and control precision.	
	Absolute, negative gauge:	±0.05% of Q-RPT span or 1 kPa (0.15 psia), whichever is greater	
Ultimate pressure (absolute, negative gauge)	with low ultimate pressure option:	50 Pa (0.5 mbar, 0.007 psia) typical, depending on vacuum pump and connections	
	without low ultimate pressure option:	200 to 700 Pa (2 to 7 mbar, 0.03 to 0.1 psia) depending on vacuum pump and connections	
Typical pressure setting ready time (0.005% hold limit, 50 cc test volume)	15 to 35 s		
Slew time (ATM to FS, 50 cc test volume)	30 s		
Typical test volume	0 to 2 MPa [0-300 psi]	0 to 1,000 cc	
	3.5 to 14 MPa [500-2000 psi]	0 to 500 cc	