FLUKE®
Calibration

RPM4-AD™

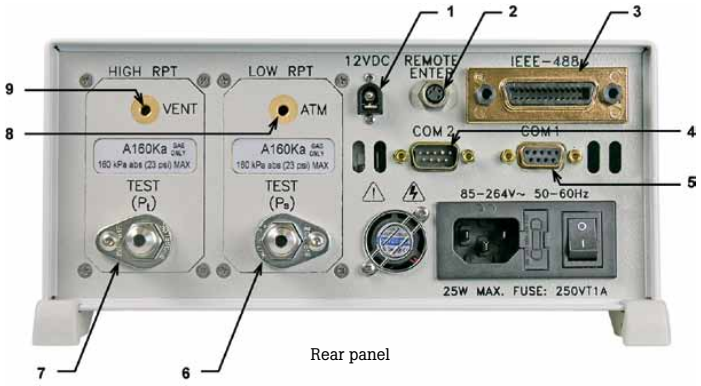
Reference Pressure Monitor, Air Data Version

Technical Data



Features

- Covers the absolute and differential pressure ranges of typical air data instruments
- Fixed wing and rotary wing range versions
- True Pt, Ps, Qc operation
- Transfer standard level measurement uncertainty
- Measures and displays altitude (ft, m), airspeed units (kts, mph, km/h, Mach) and in conventional pressure units
- RVSM compliant
- Automated rate measurement with user specified sample time
- Automated leak check function
- Compact and rugged presentation
- SDS self defense system shuts off test ports to protect from overpressure
- RS232 and IEEE-488 interfaces included
- Battery pack available
- Ideal for validation of air data test sets (ADTS)



Rear panel

1. 12 V dc power supply connection
2. Remote [ENT] connector
3. IEEE-488 remote communications
4. COM2 pass through communications
5. COM1 remote communications
6. TEST (Ps), low Q-RPT
7. TEST (Pt), high Q-RPT
8. ATM port, atmosphere reference
9. VENT port, SDS vent

Note: RPM4-AD is a specific configuration of the RPM4 reference pressure monitor. See the RPM4 full brochure for additional information on RPM4 reference pressure monitors.

원문: Fluke Calibration RPM4-AD RPM4-AD Reference Pressure Monitor Air Data Version · 제조사 원문 자료입니다. 사양은 제조사 사정에 따라 변경될 수 있습니다.

FLUKE® Calibration

Specifications

		RPM4-AD A350K/A160K (fixed wing)	RPM4-AD A160K/A160K (rotary wing)
Range	Ps	160 kPa (23 psia)	160 kPa (23 psia)
	Pt	350 kPa (51 psia)	160 kPa (23 psia)
	Qc	250 kPa (36 psid)	60 kPa (8.7 psid)
Altitude		–4,000 m to 30,000 m (–13000 ft to 100,000 ft)	–4,000 m to 20,000 m (–13,000 ft to 66,000 ft)
Airspeed (sea level)		0 to 2,040 km/hr (1100 kts)	0 to 1,020 km/hr (550 kts)
Power requirements		85 V to 264 V ac, 50/60 Hz and 12 V dc, 1.2 A (battery)	
Weight		5 kg (11 lb)	
Dimensions (H x W x D)		10 cm x 22.7 cm x 24 cm (3.9 in x 8.9 in x 9.5 in)	
Test port connections		AN4 M	
Communications ports		RS232 (COM1, COM2), IEEE-488.2	
Resolution		To 1 ppm, user adjustable	
Operating temperature		15 °C to 35 °C (59 °F to 95 °F)	
Warm up time		30 minute temperature stabilization recommended from cold power up for optimum performance.	
Vibration		± 0.008 %/g maximum, worst axis. Allows operation ± 20° from reference plane without significant effect	
Predicted stability[1]		± 0.005 % of reading Note: the two Q-RPTs in RPM4-AD A160K/A160K can be compared one to the other to assist in identifying Q-RPT drift between calibrations	

	RPM4-AD A350K/A160K (fixed wing)			RPM4-AD A160K/A160K (rotary wing)		
	Ps Q-RPT (altitude)	Ps - Pt Q-RPT (Qc) (airspeed at varying altitude)	Pt Q-RPT	Ps Q-RPT in parallel mode (altitude, airspeed at ground)	Ps - Pt Q-RPT (Qc) (airspeed at varying altitude)	Single Ps or Pt
Precision[2]	± 0.005 % of reading or 2.4 Pa, whichever is greater	± 0.005 % of reading or 5.25 Pa, whichever is greater	± 0.005 % of reading or 5.25 Pa, whichever is greater	± 0.004 % of reading or 2 Pa, whichever is greater	± 0.005 % of reading or 2.4 Pa, whichever is greater	± 0.005 % of reading or 2.4 Pa, whichever is greater
Measurement uncertainty[3]	± 0.008 % of reading or 3.8 Pa, whichever is greater	± 0.008 % of reading or 6.6 Pa, whichever is greater	± 0.008 % of reading or 8.4 Pa, whichever is greater	± 0.006 % of reading or 3 Pa, whichever is greater	± 0.008 % of reading or 3 Pa, whichever is greater	± 0.008 % of reading or 3.8 Pa, whichever is greater

[1] Predicted Q-RPT measurement stability limit (k=2) over one year assuming regular use of AutoZero function. AutoZero is performed by the operator: against zero pressure when vented in gauge mode, by direct comparison of one Q-RPT to the other at the line pressure in differential mode, by comparison with a 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 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."

Ordering information

Model
RPM4-AD A350Ka/A160Ka Reference Pressure Monitor, Air Data Version (fixed wing)
RPM4-AD A160Ka/A160Ka Reference Pressure Monitor, Air Data Version (rotary wing)

Accessories
Rack Mount Kit Rack mount kit for standard 19 inch rack
Footswitch Remote [ENTER] footswitch
MPC1-1000 Single channel manual pressure controller
MPC1-D-1000 Dual channel manual pressure controller
Case Molded transit case for RPM4 and battery pack
VA-PPC/MP-REF Vacuum pump (110V) and connection for MPC1
VA-PPC/MPC-REF Vacuum pump (220V) and connection for MPC1

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