Barometers



- Wide range of models with technical specifications for meteorological applications
- Analogue outputs (DQA240A.1, DQA801)
- RS485, Ethernet digital outputs (DQA251)
- Very good accuracy: ±0.15 hPa (@20°C) ±0.20 hPa (-40...60 °C) (DQA251)
- QNH, QFE, QFF measurements (DQA251+Alpha-Log)
- Alpha-Log data logger is equipped with internal pressure sensor. In the data sheet of the data logger, technical specifications of this sensor are described (Read Alpha-Log column)

Sensors designed for accurate measurement of atmospheric pressure. DQA240A.1 is more suitable for LSI LASTEM data acquisition systems (0...1V DC output). DQA801 is also suitable for integration in third party systems (0/4...20 mA output), its range is locally selectable by trimmer. DQA251 is a high precision instrument for absolute pressure, QNH, QFE, QFF. Long-term stability and a web interface make it the perfect instrument for professional acquisition systems, meteorology and aviation. Heavy duty enclosure IP67, allows easy installation also in harsh environmental conditions. DQA251 sensor is built according WMO and ICAO standards.

Technical Specifications

PN	DQA240A.1	DQA801	DQA251	Alpha-Log
				
Output	0...1 V	0/4...20 mA	Modbus on RS485; Modbus on TCP-IP, Lan-Ethernet; auto sending on RS232 (ASCII file every 3 s), FTP	Read Data-Logger spec.
Measurement	Absolute Pressure		Absolute Pressure QNH, QFE, QFF according to CIMO/ET-Standard-1/Doc.10 (20.XI.2012) WMO -2012	
Number of transducers	1		1 (optional 3)	1
Memory	NO		128 Mb (about 3 years measurements)	Read Data-Logger spec.
Data display	NO		• by built-in LCD 2x24 chr display • by web-browser on a connected PC (charts and numeric values)	Read Data-Logger spec.
Data download	NO		Last 30 days measurements in Excel and ASCII files by Ethernet port	Read Data-Logger spec.

PN	DQA240A.1	DQA801	DQA251	Alpha-Log
Power supply	10...14 V DC	10...30 V DC/AC	10.8…15 V DC	Read Data-Logger spec.
Power consumption	0.25 W	0.5 W	<0.6 W (~45mA @ 12 V DC)	Read Data-Logger spec.
Accuracy	±0.5 hPa		±0.15 hPa (@20 °C) ±0,20 hPa (-40...60 °C)	±1 hPa
Thermal drift	Compensated for the range: 10...60 °C. Drift in the range-20...10 °C: -0,025 hPa/°C		Compensated into the range: -40...60°C	Compensated into the range: -20...85 °C
Range	800...1100 hPa	Default: 800...1100 hPa (selectable 600...1100 hPa, 700...1100 hPa)	500...1200 hPa	500...1100 hPa
Linearity	NA	NA	±0.1hPa / <0.05hPa	NA
Resolution	0.1 hPa		0.01 hPa	0.084 hPa
Response time	0.5 s		0.1 s	0.1 s
Long term stability	<±0.5 hPa/year		<±0.1 hPa/year	
Calibration	Data Logger setup	By trimmer	By internal software	
Calibration certificate	Not included		Included	Not included
Maximum pressure limit	2000 hPa		3000 hPa	
Principle	Piezoresistor			
Protection	IP43	IP65	IP67	IP43
Weight	0.2 kg	0.3 kg	1 kg	Read Data-Logger spec.
Installation	Inside ELFxxx enclosures	On DYA078 bracket	On DIN bar	Read Data-Logger spec.
Cable	Included, L=20 cm	See Accessories	Included	-
Operative temperature	-40...85 °C		-30...80 °C	-40...80 °C
Data logger compatibility	E-Log Alpha-Log		Alpha-Log Using R485->232 converter: E-Log	NA

Accessories

	**DWA505A**	Cable L=5 m for DQA801
	DWA510A	Cable L=10 m for DQA801
	DWA525A	Cable L=25 m for DQA801
	DWA526A	Cable L=50 m for DQA801
	DWA527A	Cable L=100 m for DQA801
	**MG2251.R**	7 pin free female connector
	**DYA078**	Support for DQA801 with radiant shield.
	SVICA5001	Calibration certificate/ISO9001 type (Absolute pressure)
	SVACA5006.1	Calibration certificate/ISO17025 type/N.6 points (Absolute pressure)

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