

Pressure Measurement Modules for use with MFT 4000, MFT 4010 and MFT 4020



Pressure Sensor Modules from Meriam Process Technology are available in a several types and ranges to provide the ultimate in flexibility and convenience for calibration standards. Meriam pressure modules are used with any MFT 4000 Series Multi-Function Tester by installing modules into any of three (3) MFT sensor bays. The modules are completely interchangeable and can also be hot-swapped, when needed, to facilitate most any pressure testing needs (restrictions on module installation and removal apply to Intrinsically Safe MFT units).

NIST traceable accuracy of $\pm 0.025\%$ FS is available for most pressure ranges and types. This accuracy statement includes all effects of linearity, hysteresis, repeatability and temperature from 23° F to 122° F (no partial temperature compensation here!). A NIST certificate and calibration data are included with each module for quality assurance purposes. This specification offers customers a cost savings with virtually the same measurement accuracy when used in conditioned or temperate environments.

Pressure
Modules

Calibration coefficients for all modules are stored in non-volatile sensor module memory. This means any pressure module can be used in any Meriam MFT without manual programming of coefficients. When a module is installed or the MFT is powered up, the MFT senses the module bay connection, polls the module for the calibration coefficients and configures the display for pressure readout in the last engineering unit selected. Engineering units, including PSI, centimeters or inches of H₂O (at 4°C, 20°C, or 60°F), kg/cm², kPa, mBars, Bars, millimeters or inches of Hg (at 0°C ref. temp), are all selectable from the MFT keypad.

Meriam sensor modules are designed to be re-calibrated in the field with appropriate local calibration standards. The MFT's Rcal feature allows customers to adjust zero (offset) and full scale (gain) plus up to seven (7) addition points on the calibration curve. Dead weight testers are generally used to apply a known pressure to a module. The Rcal feature allows the user to key in the applied pressure value, which lets the module know how to correct its calibration curve. Meriam also provides factory re-calibration services for pressure modules including complete documentation and certification.

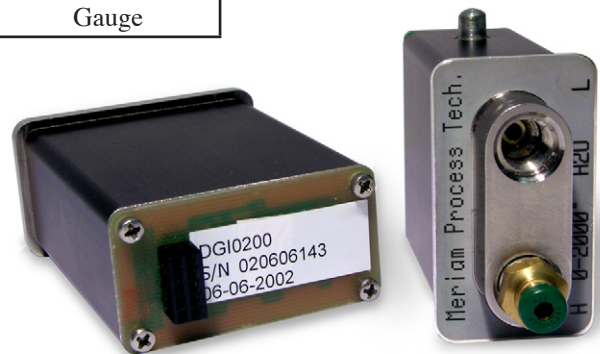
Specifications

Temperature	Connections
Storage: -40° F to 140° F (-40° C to 60° C) Operating: 23° F to 122° F (-5° C to 50° C)	1/8" FNPT, 316ss
Model codes and uses	Pressure limits
xDN: Differential Non-isolated – clean, dry, non-corrosive gases only xGI: Gauge Isolated – medias compatible with 316SS xAI: Absolute Isolated – medias compatible with 316SS	xGI / xAI modules: 2X range / 316ss compatible xDN modules: 2X range when pressurized on high side only, 150 PSI when applied simultaneously to high and low sides
NIST Traceable Accuracy	Certifications
See specification in Table on next page	CE Mark (standard)  NIST traceability certificate (standard)  Intrinsically Safe, MET Laboratories per CSA C22.2 & UL Class I Division I (standard on all pressure modules)

Available Pressure Modules

Accuracy	Model	Pressure range	Accuracy	Type
±.10% *	FDN0010	0-10" H ₂ O	± 0.009 H ₂ O dp	Differential
	FDN0020	0-20" H ₂ O	± 0.020 H ₂ O dp	Differential
±.025% *	DDN0100	0-100" H ₂ O	± 0.025 H ₂ O dp	Differential
	DDN0200	0-200" H ₂ O	± 0.05 H ₂ O dp	Differential
	DDN0400	0-400" H ₂ O	± 0.10 H ₂ O dp	Differential
	DDN2000	0-2000" H ₂ O	± 0.50 H ₂ O dp	Differential
	DGI0020	0-20 PSIG	± 0.005 H ₂ O PSIG	Gauge
	DGI0200	0-200 PSIG	± 0.05 H ₂ O PSIG	Gauge
	DGI0500	0-500 PSIG	± 0.125 H ₂ O PSIG	Gauge
	DGI1000	0-1000 PSIG	± 0.25 H ₂ O PSIG	Gauge
	DGI1500	0-1500 PSIG	± 0.375 H ₂ O PSIG	Gauge
	DGI2000	0-2000 PSIG	± 0.500 H ₂ O PSIG	Gauge
	DAI2000	0-2000 mm Hg	± 0.225 mmHg Abs	Absolute
	DAI0900	0-900 mm Hg	± 0.50 mmHg Abs	Absolute
	DAI5200	0-100 PSIA	± 13.00 mmHg Abs	Absolute
±.05% *	GGI3000	0-3000 PSIG	± 1.50 PSIG	Gauge

* Includes all effects of linearity, hysteresis, repeatability and temperature from 23° F to 122° F



Ordering Information

Pressure Modules: See Accuracy Table for P/N

Accessories

P/N B34686 961P pressure pump with integral variator, bleed valve, 1/8" FNPT connection, 0 - 145 PSIG

P/N B34700 961V vacuum pump with integral variator, bleed valve, 1/8" FNPT connection, -650 mm Hg

P/N A34386 Low Pressure Connector Kit (not for use above 250 PSIG)

P/N A34102 1/8" O.D. tubing to 1/8" MNPT connector (not for use above 250 PSIG)

P/N A34112 1/8" O.D. tubing union tee (not for use above 250 PSIG)

P/N A34099-1 1/4" MNPT X 1/8" FNPT reducer bushing, brass

P/N A34103-2 10 ft of 1/8" O.D. nylon tubing (not for use above 250 PSIG)

P/N A36856 Push to read equalizing manifold for DP modules, brass, 1/8" FNPT connections

P/N A900020-90502 High Pressure Connection Kit, 3' hose (not for use above 9,000 PSIG)

P/N A900020-90503 High Pressure Connection Kit, 1' hose (not for use above 9,000 PSIG)

P/N A900020-90501 5 pcs 1/4" MNPT x HP Quick Connect Fitting (not for use above 9,000 PSIG)

P/N A900436-00001 1 pcs 1/8" MNPT HP Quick Connect fitting (not for use above 9,000 PSIG)

