Application Note

August, 2009

M200LS Lab Standard Smart Manometer –
Accuracy & Resolution Table for all Engineering Unit Choices

Requirement:
Today's maintenance technicians need accurate and flexible test gear to tackle as many applications as possible. Because pressure measurements made by OEM equipment can be displayed in many different engineering units, technicians need the flexibility to quickly change units and to be confident of resulting accuracy and resolution.

Solution:
Meriam's M200LS Lab Standard Smart Manometer meets this requirement. The user selects from 11 pressure units, 1 user-defined unit or square root flow options. This handheld unit is available in differential pressure ranges from 28" to 2000" H_2O (clean, dry, non-corrosive gases only), 15 to 500 PSIG and 17.4 to 38.7 PSIA to suit many measurement needs.

Standard accuracy is ± 0.01% FS (28" wc range is ± 0.02% FS) including all affects of linearity, repeatability, hysteresis and temperature from 59º to 86º F (15º to 30º C). See the table below for accuracy and resolution of each pressure unit.

Other important features: backlit display, 100+ hours of battery life, 1/8" NPT(F) HI and LO pressure connections.

M200LS: ± Potential Error* & Resolution Table

M200LS-	PSI	inW20C	inW60	inW4C	kPa	mBar	cmW20C	inHg	mmHg
DN0028	0.0002	0.006	0.006	0.006	0.0014	0.014	0.014	0.0004	0.010
DN0200	0.0007	0.02	0.02	0.02	0.005	0.05	0.05	0.001	0.04
DN2000	0.007	0.2	0.2	0.2	0.05	0.5	0.5	0.01	0.4
GI0015	0.002	0.04	0.04	0.04	0.01	0.1	0.1	0.003	0.08
GI0030	0.003	0.08	0.08	0.08	0.02	0.2	0.2	0.006	0.2
GI0050	0.005	0.1	0.1	0.1	0.03	0.3	0.4	0.01	0.3
GI0100	0.01	0.3	0.3	0.3	0.07	0.7	0.7	0.02	0.5
GI0300	0.03	0.8	0.8	0.8	0.2	2	2	0.06	2
GI0500	0.05	1	1	1	0.3	3	4	0.1	3
AI0017	0.002	0.05	0.05	0.05	0.01	0.1	0.1	0.004	0.09
AI0038	0.004	0.1	0.1	0.1	0.03	0.3	0.3	0.008	0.2

***** DN0028 accuracy is ±0.02% FS; all others are ±0.01% FS

Meriam Process Technologies is the name to trust for your most critical pressure measurement and calibration needs!

Meriam Process Technologies
10920 Madison Avenue • Cleveland, Ohio 44102 • www.meriam.com
Phone (216) 928-2241 • Fax (216) 281-0228 • email meriam@meriam.com