



High intensity piezo-electric microphone

M/02/F
M/02/FA
M/02/T
M/02/TA

5nC/bar nom. • vibration compensated (/*A)
250/300°C max. temp.

Half size version of the M/01, doubling acoustic bandwidth, but at expense of 14dB reduction in sensitivity, thus 0.01pC noise equivalent acoustic signal threshold increases to 82dB (2.5mbar)

M/02 application areas include air blast measurement, combustion gas acoustic measurement, fluid flow dynamics. Signals may be superimposed upon high static pressure backgrounds. Transducers are calibrated at ambient pressure.

STABILITY

Piezo-ceramics are subject to a logarithmic sensitivity decay vs. time. Exposure of piezo-ceramics to initial high pressure, temperature produces an initial sensitivity loss. Thereafter, subject to these initial conditions not being subsequently exceeded, stability is exceedingly high, of the order 1 or 2%/1st yr.

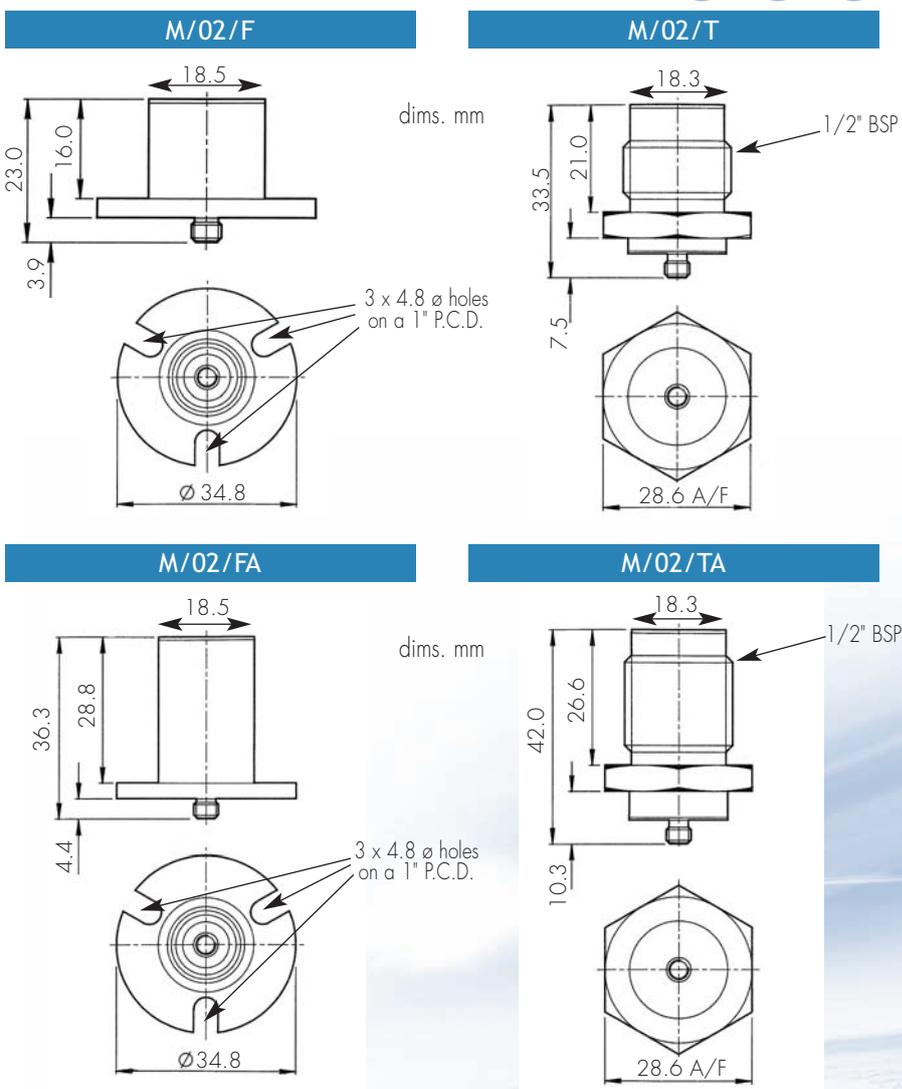
Transducers subject to high pressure/temperature should be thermally and load cycled to inbuild minimal long term degradation.

ENVIRONMENTAL

Both M/02s and M/01s have a variety of signal outlet options to cater for more extreme operating conditions. These encompass fluid immersion of transducer and cable, environments hazardous to cabling where cable armouring may be necessary and electrical interference.

options

- > charge vs. pressure up to 500bar
- > wideband temperature calibration -50/+300°C
- > proof pressure test of transducers, transducer/cable assemblies to 150bar
- > hermetic Microdot, TNC and 7/16 UNS 2 pole connectors
- > integral hardline cable termination
- > case isolated signal for cmr



Pt. No	D33 COMPRESSION	
	M/02/F,T	M/02/FA,TA
Pressure sensitivity nC/bar @ 20°C	4/6	
Vibration sens. pC/g @ 20°C	23 max	2.5 max
Capacitance nF	1.4/1.9	2.8/5.0
Resonant frequency kHz	90	70
Temperature range °C	-50 / +250	
Press./ Vib. sensitivity deviation re 20°C	-5 % @ -50°C +15% @ +250°C	
Max static Wkg. pressure, bar	200	
Case material	s/steel 303 S31	
Weight gm	46 (F), 70 (T)	56.5 (FA), 77 (TA)
Connector	Microdot skt. 10/32 UNF thd.	
Case seal	welded, hermetic diaphragm	