



### ■ M10HT :: M12HT

#### ■ Miniature Pressure Sensor with Flush Diaphragm Pressure Transducers

- Operating temperature range from -54°C to +150°C, optional up to +200°C
- Compensated temperature range up to +150°C
- Pressure ranges from 0...1 bar to 0...1000 bar (15 to 15000 psi)
- For static and dynamic pressure
- Stainless steel

These Subminiature Pressure Transducers are manufactured with a unitized stainless steel diaphragm. The advantage of this type of design is that a thin diaphragm and heavy sidewalls are made from one piece of stainless steel. This unitized diaphragm is rugged, but at the same time can be made thin enough to measure low pressures. Available pressure ranges span from 15 to 15000 psi. These models can be used in corrosive fluid environments. They have welded stainless steel electrical connectors as an integral part of the transducer body. These models are recommended for applications involving rough handling or where a completely hermetically sealed transducer is required.

#### Available Ranges (All Models)

1 bar (app. 15 psi)	::	2 bar (app. 30 psi)	::	3,5 bar (app. 50 psi)	::	5 bar (app. 75 psi)
7 bar (app. 100 psi)	::	10 bar (app. 150 psi)	::	20 bar (app. 300 psi)	::	35 bar (app. 500 psi)
50 bar (app. 750 psi)	::	70 bar (app. 1000 psi)	::	100 bar (app. 1500 psi)	::	200 bar (app. 3000 psi)
350 bar (app. 5000 psi)	::	500 bar (app. 7500 psi)	::	750 bar (app. 11000 psi)	::	1000 bar (app. 15000 psi)

		<b>Low Pressure Ranges</b>	<b>High Pressure Ranges</b>
<b>Performance</b>	Pressure Ranges	1 bar to 7 bar	10 bar to 1000 bar
	Combined Error (incl. Non-linearity, Hysteresis and Non-repeatability) (max)*	<1% F.S.	+/-0,5 % F.S.
	Output (standard)*	1,5 mV/bar @ 5 Vdc (0,1 mV/psi @ 5 Vdc)	2 mV/V
<b>Environmental</b>	Temperature, Operating	-54...+150°C (-65...+300°F)	-54...+150°C (-65...+300°F)
	Temperature, Compensated	+15...+150°C (+60...+300°F)	+15...+150°C (+60...+300°F)
	Temperature Effect:		
	..... Zero (max)*	0,0018 mV/°C (0,001 mV/°F)	0,0018 mV/°C (0,01 % F.S./°F)
..... Span (max)*	0,0036 mV/°C (0,002 mV/°F)	0,036% Rdg./°C (0,02 % Rdg./°F)	
<b>Electrical</b>	Strain Gage Type	Bonded foil	Bonded foil
	Excitation	5...10 Vdc or Vac	5...10 Vdc od Vac
	Insulation Resistance	5000 MOhm @ 50 Vdc	5000 MOhm @ 50 Vdc
	Bridge Resistance	350 Ohm	350 Ohm
	Electrical Termination	MIL-C-26482 6-pin bayonet connector, incl. mating connector for standard temperature range	MIL-C-26482 6-pin bayonet connector, incl. mating connector for standard temperature range
<b>Mechanical</b>	Overload - Safe	100% over capacity	50% over capacity
	Overload - Burst	400% over capacity	400% over capacity
	Pressure Port		
	..... M10-HT	M10 x 1,0 thread male 6G	M10 x 1,0 thread male 6G
	..... M12-HT	M12 x 1,75 thread male 6G	M12 x 1,75 thread male 6G
	Wetted Parts Material	17-4 PH Stainless	17-4 PH Stainless
	Type	Gage	Gage
Weight	28...56 g (1...2 oz.)	28...56 g (1...2 oz.)	

\* **NOTES:** Unit of measure in specifications is different for low ranges than high ranges.

**Options Temperature compensation:**

:: Option 1m: ..... -25...+110°C

:: Option 1h\*\*: ..... +21...+200°C

:: Option 1i: ..... -54...+120°C

*Note:*

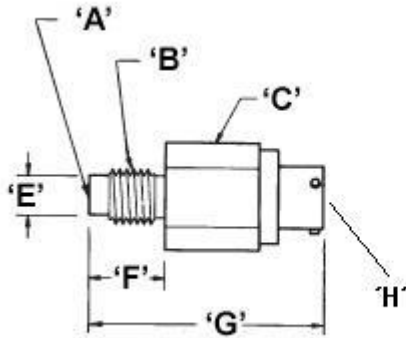
not all options available for all pressure ranges

\*\* Option 1h: a high temperature connector model AA151 (MS3476L10-6S) has to be ordered

**Options electrical termination:** (on request)

:: modified wiring

:: integ. connecting cable (PTFE)



'A'	pressure diaphragm
'B' thread	M10HT: M10 x 1,0 M12HT: M12 x 1,75
'C' hexagon	19 mm (3/4") hexagon
'E'	M10HT: 7,8 mm (0,31") diameter M12HT: 9 mm (0,355") diameter
'F'	14,6 mm (0,57")
'G'	64,6 mm (2,54")
'H'	Bendix PTIH-10-6P or equivalent

**Wiring**

Pin A	pos. excitation
Pin B	pos. excitation
Pin C	neg. excitation
Pin D	neg. excitation
Pin E	neg. signal
Pin F	pos. signal

**Ordering Information Mxx HT - yyyy - zz**

xx = 10 ..... M10 x 1,0 thread male

xx = 12 ..... M12 x 1,75 thread male

Pressure ranges	yyyyy = Order Code
1 bar	0100K
2 bar	0200K
3,5 bar	0350K
5 bar	0500K
7 bar	0700K
10 bar	1000K
20 bar	2000K

35 bar	3500K
50 bar	5000K
70 bar	7000K
100 bar	0010M
200 bar	0020M
350 bar	0035M
500 bar	0050M
750 bar	0075M
1000 bar	0100M

zz = Option

**Example:**

**M10HT-5000K-1m** describes a pressure sensor with M10 male thread, pressure range 50 bar (5000kPa), compensated temperature range from -25°C to +110°C.

Our policy is to improve specification of our products continuously, so technical and production details can be changed without any notice.  
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