



PROBE-TYPE PRESSURE TRANSDUCERS MP1X-SERIES DATASHEET



MP100 – CONSTANT VOLTAGE EXCITED MP101 – CONSTANT CURRENT EXCITED

GENERAL

- Small diameter, high stability water/liquid level pressure transducers for remote interrogation (dams, wells)
- Made of **corrosion resistant titanium** (6AL4V) – excellent performances with corrosive media
- **Absolute** or **sealed reference** options
- **Long term stability** options
- Available with cable lengths **up to 300 meters**; greater lengths are possible through splicing
- **Titanium armour** at the cable exit to improve cable pull strength while retaining a liquid seal
- Available with **moisture insulator** located near the end of the cable, to eliminate inter-conductor condensation



MECHANICAL

Standard pressure ranges	1 15	2 25	3.5 50	7 100	15 200	20 300	bar psi
--------------------------	---------	---------	-----------	----------	-----------	-----------	------------

Other possible pressure ranges	Consult Factory
Over Pressure (No change out of spec.)	2 x Range
Usable Pressure (Small change in balance)	3 x Range
Burst Pressure	6 x Range

PERFORMANCE

OPTIONS (ALL VALUES MAXIMUM)

Performance Option	A	B	C	D	E	
Balance (Zero)	$< \pm 3.00$	$< \pm 2.00$	$< \pm 1.00$	$< \pm 3.00$	$< \pm 5.00$	mV
Full Scale Sensitivity MP100	10.0 ± 2.0	10.0 ± 1.0	10.0 ± 0.5	10.0 ± 3.0	10.0 ± 5.0	mV/V
Full Scale Sensitivity MP101	12.5 ± 2.0	12.5 ± 1.0	12.5 ± 0.5	12.5 ± 3.0	12.5 ± 5.0	mV/mA
Static Error Band	± 0.50	± 0.25	± 0.100	± 0.250	± 0.50	% FS (BFSL)
Thermal Balance (Zero) Shift	± 0.036	± 0.018	± 0.009	± 0.009	± 0.036	% FS/°C
Thermal Sensitivity Shift	± 0.036	± 0.018	± 0.009	± 0.009	± 0.036	% FS/°C
Long Term Stability (std)	$< \pm 2$	$< \pm 2$	$< \pm 2$	$< \pm 2$	$< \pm 2$	% FS/yr

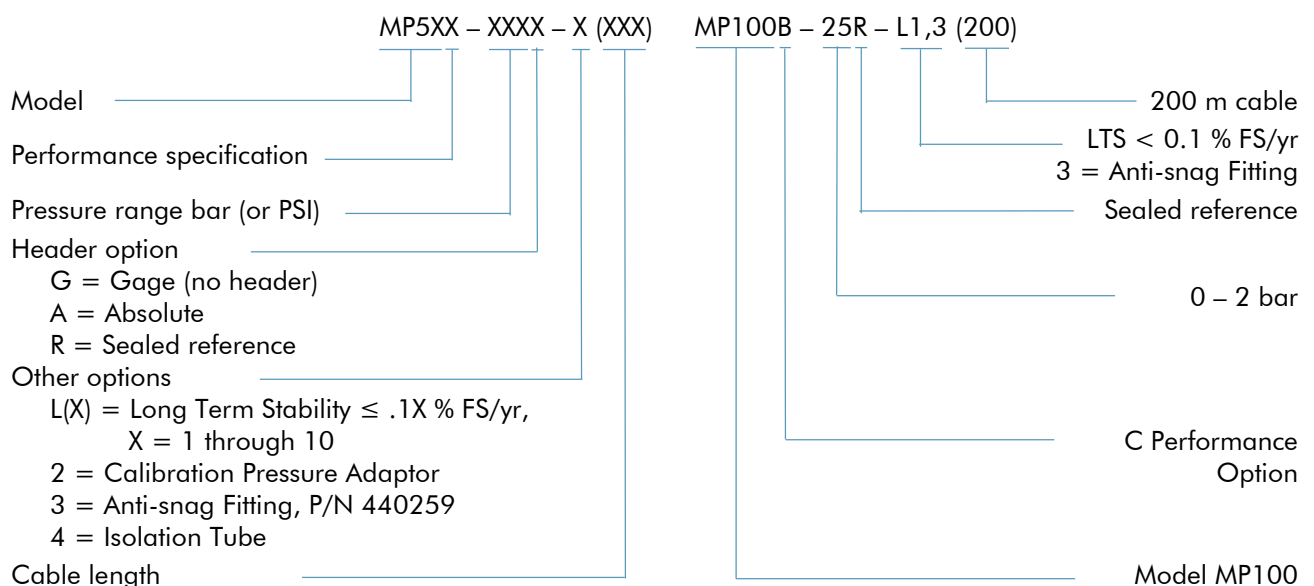
ENVIRONMENTAL

Storage and Operating Temperature	-54°C to +93° C
Compensated Temperature Range (Consult factory for other ranges)	0°C to +55°C
Acceleration (Consult factory for high vibration options)	100g's any axis
Media Compatibility (wetted surface)	Titanium 6AL4V

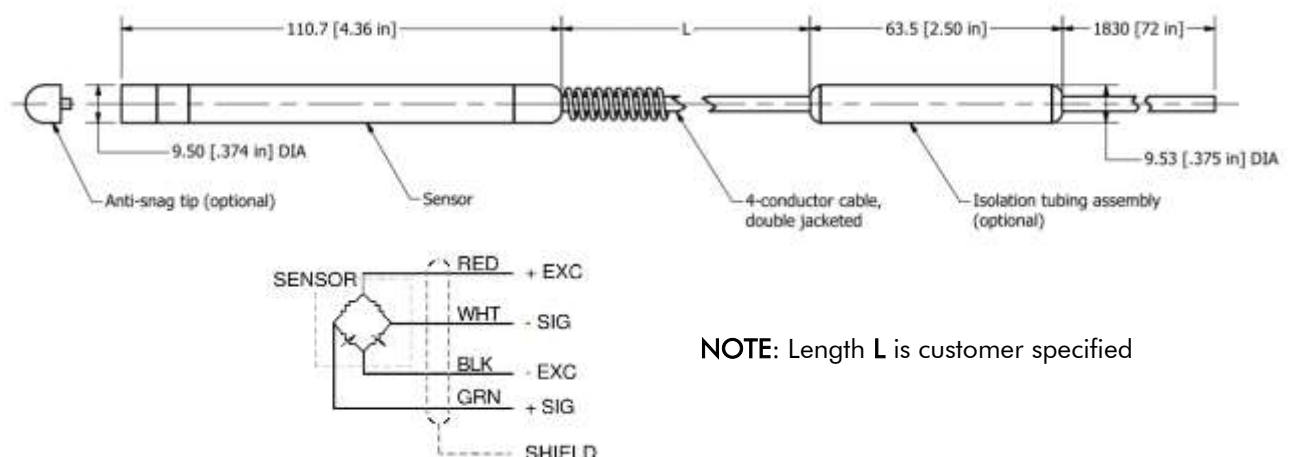
ELECTRICAL

	MP 100	MP 101
Input Constant Voltage Excited [V DC or AC]	0 – 10	-
Input Constant Current Excited [mA DC or AC]	-	8
Maximum Voltage (for short periods) [V]	40	40
Input Resistance [Ω]	1600 \pm 400	400 \pm 100
Output Resistance [Ω]	450 \pm 100	-
Insulation Resistance Minimum @50 VDC [M Ω]	50	50

ORDERING FORMAT EXAMPLE



OUTLINE



NOTE: Length L is customer specified

MP 102

GENERAL

- **Small diameter, high stability** (water/liquid level) pressure transducers for remote interrogation (dams, wells)
- **Automatic compensation** for line resistance and power supply changes
- Made of **corrosive resistant titanium** (6AL4V) – excellent performances with corrosive media
- **Absolute** or **sealed reference** options
- **Long term stability** versions
- Available with cable lengths **up to 300 meters**; greater lengths are possible through splicing
- **Titanium armor** at the cable exit to improve cable pull strength while retaining a liquid seal
- Available with **moisture insulator** located near the end of the cable to eliminate inter-conductor condensation.



MECHANICAL

Standard pressure ranges	1 15	2 25	3.5 50	7 100	15 200	20 300	bar psi
Other possible pressure ranges	Consult Factory						
Over Pressure (No change out of spec.)	2 x Range						
Usable Pressure (Small change in balance)	3 x Range						
Burst Pressure	6 x Range						

PERFORMANCE

Performance Option	OPTIONS (ALL VALUES MAXIMUM)					
	A	B	C	D	E	
Balance (Zero)	4.00 ± 0.5	4.00 ± 0.3	4.00 ± 0.2	4.00 ± 0.5	4.00 ± 0.80	mA
Full Scale Sensitivity	16 ± 0.5	16 ± 0.3	16 ± 0.2	16 ± 0.5	16 ± 0.80	mA
Static Error Band	± 0.50	± 0.25	± 0.100	± 0.250	± 0.50	% FS (BFSL)
Thermal Balance (Zero) Shift	± 0.036	± 0.018	± 0.009	± 0.009	± 0.036	% FS/°C
Thermal Sensitivity Shift	± 0.036	± 0.018	± 0.009	± 0.009	± 0.036	% FS/°C
Long Term Stability (std)	< ± 2	< ± 2	< ± 2	< ± 2	< ± 2	% FS/yr

ENVIRONMENTAL

Storage and Operating Temperature

-54°C to +93° C

Compensated Temperature Range (Consult factory for other ranges)

0°C to +55°C

Acceleration (Consult factory for high vibration options)

100g's any axis

Media Compatibility (wetted surface)

Titanium 6AL4V

ELECTRICAL

Input Constant Voltage Range [V DC]

12 - 32

Standard Calibration Voltage [V DC]

24

Other Calibration Voltage

Consult factory

Maximum Voltage (for short periods) [V]

30 V

Load Resistance [Ω]

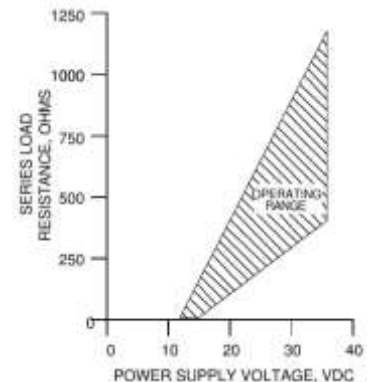
500

Other Load Resistances

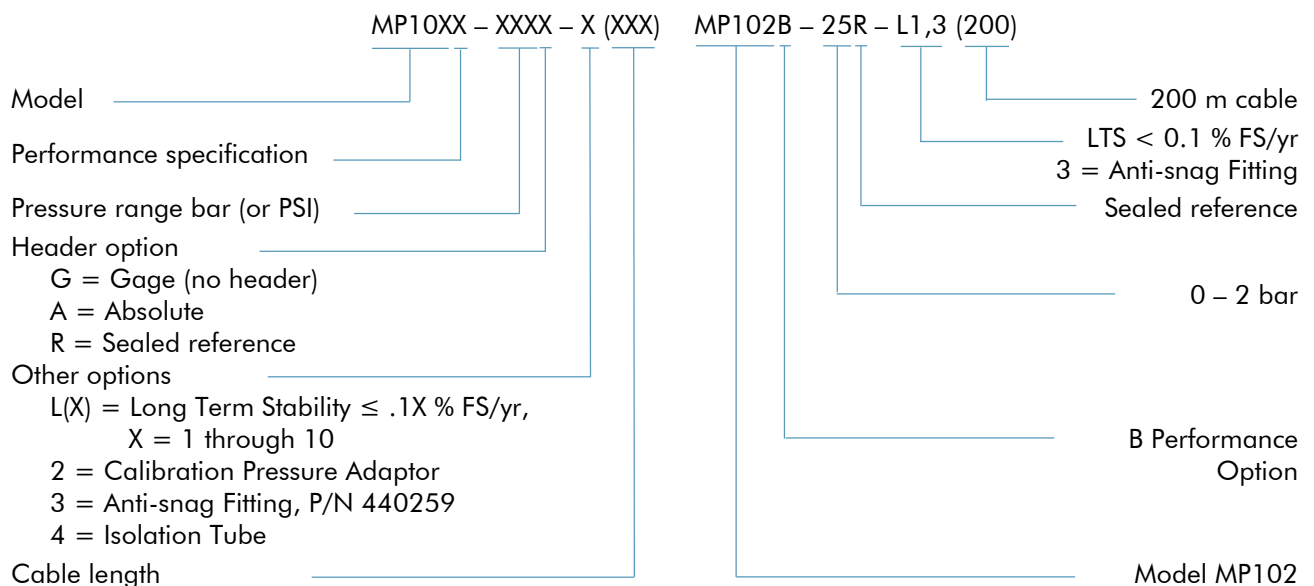
Consult factory

Insulation Resistance Minimum @50 VDC [$M\Omega$]

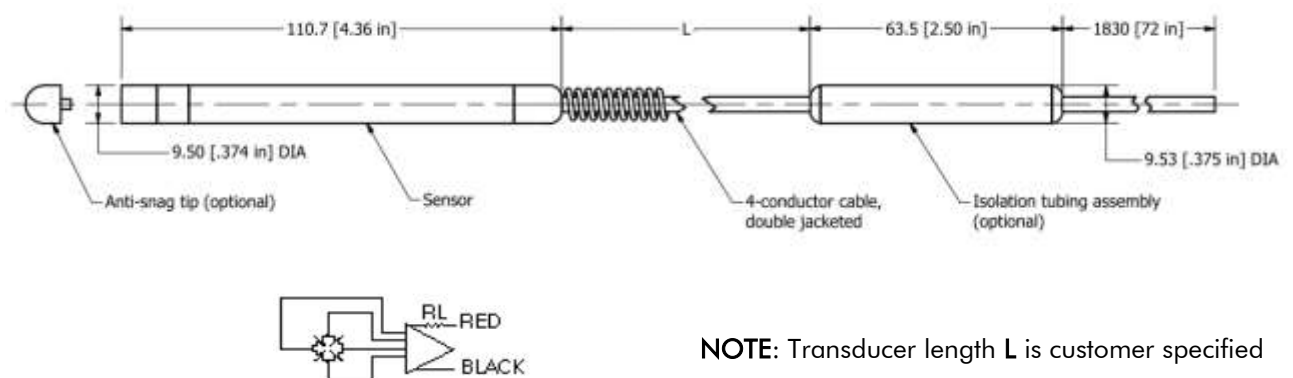
50



ORDERING FORMAT EXAMPLE



OUTLINE



NOTE: Transducer length L is customer specified