

LM6 LM6 Series Transmitter



Description and Features:

- Designed for continuous level measurement in water or other liquids with low viscosity
- 316L SS probe with stainless steel sensor for ease of cleaning
- Available ranges from H2O up to 300 psi
- $\pm 0.1\%$ and $\pm 0.35\%$ accuracy ratings
- NEMA 6P / IP68. Approved for outdoor use. Explosion proof option available
- Customizable
- 1 year warranty

Applications:

- Typical installations include ground or tank level monitoring of water and sewage treatment measurement

Specifications

Output Signal	Standard 2-wire: 4-20 mA / $V_s = 12-36$ Vdc Ex-protection: $V_s = 14-28$ Vdc Optional 3-wire: 0-20 mA / $V_s = 14-36$ Vdc 0-10 V / $V_s = 14-36$ Vdc
Accuracy	$\pm 0.35\%$ FSO BFSL Optional nominal pressure > 5 psi: $< \pm 0.25\%$ FSO BFSL > 2 psi: $< \pm 0.1\%$ FSO BFSL
Permissible Load	Current 2-wire: $R_{max} = [(V_s - V_{s \min}) / 0.02]$ Ohm Current 3-wire: $R_{max} = 500$ Ohm Voltage 3-wire: $R_{min} = 10$ kOhm
Influence Effects	Supply: 0.05% FSO / 10 V Load: 0.05% FSO / kOhm
Long-term Stability	$< \pm 0.1\%$ FSO/yr
Response Time	< 10 msec*
Permissible Temperatures	Medium: 14°F to 158°F (-10°C to 70°C) Ex-protection Zone 0: 14°F to 140°F (-10°C to 60°C) Zone 1 or higher: 14°F to 158°F (-10°C to 70°C) Storage: -13°F to 158°F (-25°C to 70°C)
Reserve Polarity Protection	No damage. No function.
Electromagnetic Compatibility	Emission and immunity according to EN 61326
Ex-protection Option	Zone 01: II 1 G Ex ia IIC T4 Zone 20: II 1 D Ex tD A20 IP65 T185°F (85°C) Safety technical max values: $V_i = 28$ V, $I_i = 93$ mA, $P_i = 660$ mW, $C_i < 1$ nF, $L < 10$ μ H
Electrical Connection	Cable with sheath material ² : PVC grey, PUR black, FEP black, others available
Pollution Degree	4, electrical equipment for outdoor use
Housing	316Ti SS
Seals	FKM, others available
Diaphragm	316L SS
Weight	200 g (without cable)
Current Consumption	Current: 25 mA max Voltage: 7 mA max
Connecting Cables	Cable capacitance: Signal line/shield and signal line/signal line: 160 pF/m Cable inductance: Signal line/shield and signal line/signal line: 1 μ H/m
Enclosure Rating	NEMA 6P / IP68

Order Codes

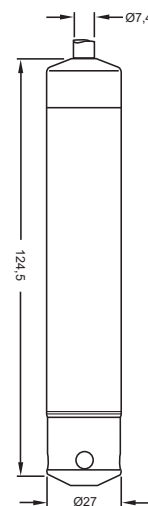
Range	Over-pressure	Burst Pressure	Code
50" H2O	15 psi	22 psi	LM6W05
100" H2O	15 psi	22 psi	LM6W10
150" H2O	15 psi	22 psi	LM6W15
200" H2O	15 psi	22 psi	LM6W20
300" H2O	15 psi	22 psi	LM6W30
400" H2O	15 psi	22 psi	LM6W40
0-5 psi	15 psi	22 psi	LM6005
0-10 psi	44 psi	109 psi	LM6010
0-15 psi	44 psi	109 psi	LM6015
0-25 psi	87 psi	218 psi	LM6025
0-50 psi	290 psi	218 psi	LM6050
0-100 psi	290 psi	725 psi	LM6100
0-200 psi	870 psi	1,740 psi	LM6200
0-300 psi	1,450 psi	1,740 psi	LM6300

Thermal Errors (Offset and Span)

Nominal Pressure (psi)	<1	<4	<6	<15	>15
Tolerance Band (% FSO)	$< \pm 2$	$< \pm 1.5$	$< \pm 1$	$< \pm 1$	$< \pm 0.75$
TC, Average (% FSO/10K)	± 0.3	± 0.2	± 0.14	± 0.1	± 0.07
Compensated Range	32°F to 122°F 0°C to 50°C		32°F to 158°F 0°C to 70°C		

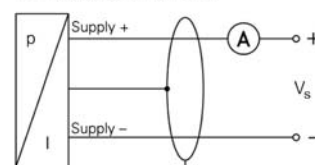
Pin Configuration

Electrical Connection		Cable Colours (DIN 47100)
2-wire system	Supply+	White
	Supply-	Brown
3-wire system	Ground	Yellow/green (shield)
	Supply+	White
	Supply-Signal+	Brown Green
Ground		Yellow/green (shield)

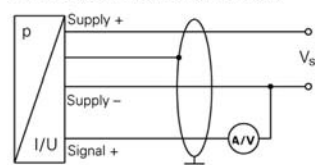


Wiring Diagram

2-wire-system (current)



3-wire-system (current / voltage)



Note: Intrinsically safe approval only applies to 4-20 mA output signal

* With optional accuracy 0.1% FSO the response time is 200 msec

¹ Approved for atmospheric pressure from 12 to 16 psi

² Cable with integrated air tube for atmospheric pressure reference

Note: Measurements are in mm. Total length of devices with accuracy 0.1% FSO IEC 60770 increases by 35mm (standard, Ex and SIL models)