

Small Size – Engineered Plastics

XM/XT-300 Engineered Plastics Series Brings Continuous Output to Shallow Tanks

Your most complete line of small, polysulfone liquid level sensors...all from Gems Sensors.

- ▶ All-Plastic Wetted Parts
- ▶ 4mm Resolution
- ▶ Indicating Length to 14" (35.5 cm); Stem Length to 20" (50 cm)
- ▶ U.L. Pending

Designed for the high quantity needs of the OEM, XM/XT-300 Series transmitters are the ideal level sensor for shallow tanks and reservoirs. Compact and versatile, these plastic level sensors offer a broad choice of mountings and float materials. The following pages illustrate the various design parameters available to configure custom XM/XT-300 Series Sensors.

1. Mounting Types

Each mounting type can be configured with stem lengths (L_0) and float materials indicated in this bulletin.



LEVEL SENSORS – CONTINUOUS



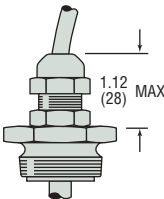
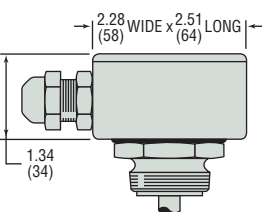
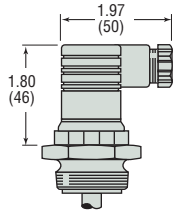
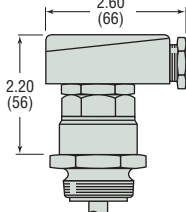
NPT Threads		Straight Threads		
Type 21 1/8" NPT 	Type 22 1" NPT 	Type 31 3/8" - 24 	Type 32 1-5/16" - 12 	Type 33 5/8" - 11
Metric Threads		Compression Types		Type 11 No Mounting
Type 41 G 1/4" (1/4" - 19 BSP) 	Type 42 G 1" (1" - 11 BSP) 	Type 51 M12 x 1.5 Straight Thread 	Type 71 5/8" - 11 	
Flange Mountings ²				
Type 61 2" O.D. Flange 		Type 63 Pop Flange 		

Stem, Mounting and Collar Material	Polysulfone or Noryl®
Max Length (L_0)	20 inches (50 cm), Tolerance of $L_0 = \pm 1/16"$ (2 mm)
Mounting Position	Vertical $\pm 30^\circ$ Inclination

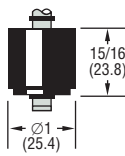
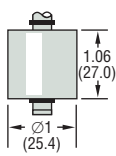
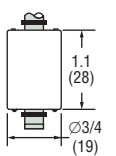
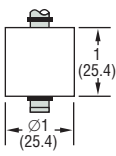
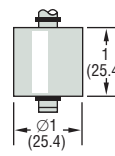
Notes:
1. Type 71 mounting to be used with 3/4" diameter float only.
2. Not recommended for pressure applications.

Dimensions expressed as: $\frac{\text{inches}}{\text{millimeters}}$

2. Electrical Connections

	Type 1 Leadwire	Type 2 Cable	Type 3 Liquid-Tight Cable	Type 4 Junction Box Assembly	Type 5 DIN43650 Plug	Type 6 DIN43651 Plug
						
Compatible Mounting Type(s)	All			42	42	42
Protection Rating	IP64		IP68	IP65		
Extended Leads	#22 AWG PVC Wire, 24" (610mm) Min.	#22 AWG PVC Jacketed Cable, 24" (610mm) Min.		Terminal Box (7 Terminals)	3 Poles	6 Poles

3. Float Types

Float Material	Buna N	Polysulfone	Polypropylene		PVDF	
			Solid Foamed	Hollow – 20% Glass Filled		
Float Dimensions						
Part Number	39048	39005	231500	119455	145730	174515
Float Material Suitable for...	Oil, Fuels	Water-based Liquids	Broad Chemical Use		Low Specific Gravity Liquids	Broad Chemical Use
Operating Temperature ¹	Water: to 180°F (80°C) Oil: -40°F to +221°F (-40°C to +105°C)	-40°F to +221°F (-40°C to +105°C)	-40°F to +212°F (-40°C to +100°C)		-40°F to +221°F (-40°C to +105°C)	-40°F to +250°F (-40°C to +121°C)
Pressure, psi (bar) Max. ²	250 (17)	50 (3.5)	Atmospheric	250 (17)	50 (3.5)	50 (3.5)
Min. Media Specific Gravity	0.45	0.75	0.95	0.90	0.60	0.86

Notes:

- Operating temperature range based on float ratings.
- When used with mounting Type 21, 32 or 22 only; Mounting Type 61, and 63 are not recommended for pressure applications. Pressures are derated with increasing temperature above 70°F

Dimensions expressed as: $\frac{\text{inches}}{\text{millimeters}}$

Also Available

XM/XT-350 Combination Siphon and Level Transmitter
Contact Gems for more details. **800-378-1600**

<p>FAX IT! 860-747-4244</p> <p>Photocopy This Form</p> <p>Use one form for each product type you are selecting.</p> <p><small>This form may also be completed online at gemssensors.com for RFQ.</small></p>	<p>This is a <input type="checkbox"/> Request for a Quote <input type="checkbox"/> Order P.O.# _____</p> <p>Quantity Needed _____</p> <p>Date Required ____/____/____</p> <p>Shipping Method: _____</p> <p>Partials Accepted: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Name _____</p> <p>Company _____</p> <p>Street _____</p> <p>City _____ State ____ Zip _____</p> <p>Phone (____) _____</p> <p>Fax (____) _____</p>
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XM/XT-300 Engineered Plastics Custom Length, Float Type Level Transmitter Check List

Operational Parameters

This information is essential to the accurate and proper operation of your GEMS configurable sensor. Please complete fully and accurately before ordering.

- | | |
|---|---|
| <p>1. Liquid Media: _____</p> <p>2. Pressure: Minimum _____ <input type="checkbox"/> psig <input type="checkbox"/> bar Maximum _____</p> <p>3. Temperature: Minimum _____ <input type="checkbox"/> °F <input type="checkbox"/> °C Maximum _____ <input type="checkbox"/> °F <input type="checkbox"/> °C</p> <p>4. Specific Gravity: Minimum _____ Maximum _____</p> | <p>5. Viscosity: _____ SSU</p> <p>6. Tank Material: _____</p> <p>Tank Depth: _____</p> <p>7. Unit is Mounted In: <input type="checkbox"/> T – Top Mounted <input type="checkbox"/> B – Bottom Mounted</p> |
|---|---|

Product Parameters

1. Mounting Type (select one):

- | | |
|--|---|
| <input type="checkbox"/> 11 – No Mounting | <input type="checkbox"/> 21 – 1/8" NPT |
| <input type="checkbox"/> 22 – 1" NPT | <input type="checkbox"/> 31 – 3/8"-24 Straight Thread |
| <input type="checkbox"/> 32 – 1-5/16"-12 | <input type="checkbox"/> 41 – G1/4" (1/4"-19BSP) |
| <input type="checkbox"/> 42 – G1" (1"-11BSP) | <input type="checkbox"/> 51 – M12 x 1.5 Straight Thread |
| <input type="checkbox"/> 61 – 2" O.D. Flange | <input type="checkbox"/> 33 – 5/8"-11 |
| <input type="checkbox"/> 63 – Pop Flange | <input type="checkbox"/> 71 – 5/8"-11 with 3/4" floats only |

2. Electrical Connections:

✓*	Type	Description	Compatible Mounting Types
	1	Lead Wires, 24" to 26" (610mm, Min.)	All
	2	Cable, 24" to 26" (610mm, Min.)	All
	3	Liquid-Tight Cable Fitting	42
	4	Junction Box Assembly	42
	5	DIN43650 Plug Connector, 3 Poles	42
	6	DIN43651 Plug Connector, 6 Poles	42

* Select one

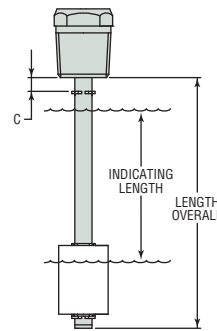
3. Float Type (select one):

- Buna-N – P/N 39048
- Polysulfone – P/N 39005
- Solid Foamed Polypropylene – P/N 119455
- Solid Foamed Polypropylene – P/N 231500
- Hollow Polypropylene – P/N 145730
- PVDF – P/N 174515

Please contact GEMS Sensors Inc. for any configuration or special requirements not covered on this form. **800-378-1600**

<p>For use by GEMS Sensors & Controls</p> <p>Quote: \$ _____ Date Quoted: ____/____/____</p>
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5. Dimensions:



C: Minimum distance from bottom of mounting to upper float stop.

XM Series = 0.25" (6.4 mm)
XT Series = 1.0" (25.4 mm)

Provide values for both items and check the box next to the most critical value.

- Indicating Length _____ Inches Millimeters
- Length Overall _____ Inches Millimeters

6. Output:

XM-300

- Proportional Voltage
Planned Input Voltage _____
- Resistive (Quantity Dependent)
Preferred Value @ Maximum Indication _____ Ohms
Preferred Value @ Minimum Indication _____ Ohms

XT-300

- 2-Wire, Loop Powered 4-20mA Output (Insert Mounted)
- Note: "C" dimension = 1" minimum



ORDER IT!