

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" (356 mm); Stem Length to 20" (508 mm)
- ▶ 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.



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 ¹ 5/8" - 11	
Flange Mountings ²				
Type 61 2" O.D. Flange		Type 63 Pop Flange		

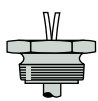
Stem, Mounting and Collar Material	Polysulfone or Noryl®
Max Length (L_0)	20 inches (508 mm), Tolerance of $L_0 = \pm 1/16"$ (1.6 mm)
Mounting Position	Vertical $\pm 30^\circ$ Inclination

Notes:

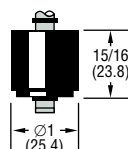
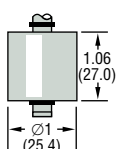
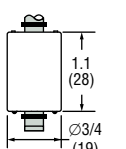
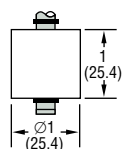
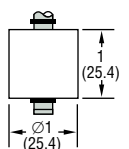
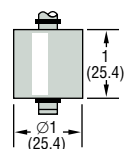
1. Type 71 mounting to be used with 3/4" diameter float only.
2. Not recommended for pressure applications.

Dimensions expressed as: inches (millimeters)

2. Electrical Connections

	Type 1 Leadwire	Type 2 Cable
		
Compatible Mounting Type(s)	All	
Protection Rating	IP64	
Extended Leads	#22 AWG PVC Wire, 24" (610mm) Min.	#22 AWG PVC Jacketed Cable, 24" (610mm) Min.

3. Float Types

Float Material	Buna N	Polysulfone	Polypropylene			PVDF	
			Solid Foamed		Hollow – 20% Glass Filled		
Float Dimensions							
Part Number	245900	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)	-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)
	Oil: -40°F to +221°F (-40°C to +105°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: inches (millimeters)

FAX IT!

267-673-8118

Photocopy This Form

Use one form for each product type you are selecting.

This form may also be completed online at gemssensors.com for RFQ.

This is a ☐ Request for a Quote
☐ Order P.O.# _____

Quantity Needed _____

Date Required ____/____/____

Shipping Method: _____

Partials Accepted: ☐ Yes
☐ No

Name _____

Company _____

Street _____

City _____ State ____ Zip _____

Phone (____) _____

Fax (____) _____

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.

1. **Liquid Media:** _____

2. **Pressure:** Minimum _____ ☐ psig ☐ bar Maximum _____

3. **Temperature:** Minimum _____ ☐ °F ☐ °C Maximum _____ ☐ °F ☐ °C

4. **Specific Gravity:** Minimum _____ Maximum _____

5. **Viscosity:** _____ SSU

6. **Tank Material:** _____

Tank Depth: _____

7. **Unit is Mounted In:** ☐ T - Top Mounted ☐ B - Bottom Mounted

Product Parameters

1. Mounting Type (select one):

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

2. Electrical Connections:

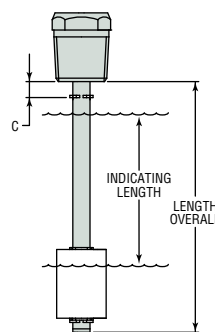
✓*	Type	Description	Compatible Mounting Types
	1	Lead Wires, 24" to 26" (610mm, Min.)	All
	2	Cable, 24" to 26" (610mm, Min.)	All

* Select one

3. Float Type (select one):

- ☐ Buna-N - P/N 245900
- ☐ 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

5. Dimensions:



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

Mounting	Proportional	Volt	Current
11	0.5	1.5	2.25
21	0	0.75	1.5
22	0	0.19	0.94
31	0	0.63	1.38
32	0	0.63	1.38
33	0	0.19	0.94
41	0	0.81	1.56
42	0	0.63	1.38
51	0	0.81	1.56
61	0	1.25	2
63	0	0.63	1.38
71	0	0.19	0.94

Note: For Proportional values of "0" no upper grip ring is installed. Float stops at bottom of mount.

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 _____

XT-300

☐ 2-Wire, Loop Powered 4-20mA Output (Insert Mounted)

☐ 0-5 VDC

☐ 0-10 VDC

Please Contact **C A Briggs Company** for any Special Configurations Or requirements not covered on this form. **267-673-8117**

For use by Gems Sensors & Controls

Quote: \$ _____ Date Quoted: ____/____/____