



# 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)
- U.L. Pending

Designed for the 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 the versatile XM/XT-300 Series Sensors.



LEVEL SENSORS – CONTINUOUS

Each mounting type can be configured with stem lengths (L<sub>o</sub>) 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		
0.49 (12.3) 1 -1/8" NPT 0.14 (4) 1 to	1.38 HEX (35) HEX (6.4) 1.7 NPT 1.07 (27) 1.07 (27)	3/8"-24 STRAIGHT (12.3) THREAD (12.3) 0.50 (13) HEX (5)	0.25 (38) HEX (38) HEX (13.2) DINA "N" O-RING (15) THEAD THREAD	0.437 (11.1) FLATS 1.33 1.00 (58) (34) (25) (25) (2) GASKET (BUNA) LO (NYLON)		
Metric Threads			Compression Types	Type 11		
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 71¹ 5/8″ – 11	No Mounting		
0.49 (12.5) G1/4" (1/4"-19 BSP) 0.63 (16) HEX (5) L0	PG13.5 THD. 0.240 (6.1) 1.63 HEX (16) (41) HEX (16) (16)	0.47 (11.9) THEAD 0.20 0.63 (16) HEX	0.437 (11.1) FLATS JAM NUT 5/8"-11 THREAD (34) (25) WASHER (NYLON) COMPRESSION GASKET (HNBR, BLACK)	t.0		
Flange Mountings <sup>2</sup>						
Tuno C1						

Flange Mountings <sup>2</sup>					
Type 61 2″ O.D. Flange	Type 63 Pop Flange				
0.156/4 (4) HOLES EQUALLY SPACED AS SHOWN ON A 1.50738 B.C.  0.25 (6)  0.50 (13)  1 to 0.50 (13)	POP-IN 0.13 (3) 10.58 (4.8) (15) 10.58 (15) 10.68 (15)				

Stem, Mounting and Collar Material	Polysulfone		
Max Length (L <sub>0</sub> )	20 inches (508 mm), Tolerance of $L0 = \pm 1/16''$ (1.6 mm)		
Mounting Position	Vertical ±30° Inclination		

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

Dimensions expressed as: inches (millimeters)



## Specialists in Valves, Controls, Pneumatics and Fluid Measurement



An O'Keefe Controls Company

### **FLOAT TYPE**

#### 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	Buna N	Polysulfone	Polypropylene			
Material			Solid Foamed		Hollow – 20% Glass Filled	PVDF
Float Dimensions	15/16 (23.8) 	1.06 (27.0) + Ø1 (25.4)	1.1 (28) 1 (29) 23/4 (19)	(25.4) (25.4) (25.4)	(25.4) (25.4) (25.4)	(25,4) (25,4) (25,4)
Part Number	245900	39005	231500	119455	259125	174515
Float Material Suitable for	Oil, Fuels	Water-based Liquids	Broad Chemical Use		Low Specific Gravity Liquids	Broad Chemical Use
Operating Temperature <sup>1</sup>	Water: to 180°F (80°C)	-40°F to +221°F	-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)	(-40°C to +105°C)				
Pressure, psi (bar) Max. <sup>2</sup>	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	0.65	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)