Warrick® Sensor Fittings and Probes

Warrick Liquid Level Sensors are available in single- and multi-probe models and with a variety of fittings. The versatility of the Warrick design makes these sensors ideal for a diverse range of applications.

Examples include:

- Food and Beverage
- Caustics and Acids
- Sumps
- Reservoirs
- Pharmaceuticals
- Boilers and Steam Generators
- Ponds
- Sewage and Wastewater

this come installed in the electrode holder

Probe Styles

- Metal Rods
- Wire Suspended
- Corrosion Resistant
- Sanitary

Fitting Styles

- 3/8˝ to 3˝ Threaded Mount
- Bracket Mount
- Flange Mount
- External Mount
- Sanitary Mount
- Condulet Mount

Sensor Selection Chart

SERIES		3E	3N	3F	3G	3C	3K	3J	3L	3M	3MT	3S	3R	3T	3B	3H	3W	3Y
Page Number		E-23	E-23	E-22	E-22	E-26	E-26	E-21	E-21	E-28	E-28	E-27	E-24	E-24	E-23	E-21	E-25	E-25
Body Options	Flange			•	•													
	Pipe Thread	•			•			•										
	Flat Mount		•		•													
	Side Chamber					•	•											
	Non-Contact Electrodes											•						
	Food Grade Connection									•	•							
	Bracket Mount											•						
Fitting Body Material Options	Brass	•	•	•		•		•										
	PVC		•	•	•													
	1018 Carbon Steel			•														
	Stainless Steel	•		•														
	Forged Steel			•														
	Nylon									•	•							
	Cast Iron	•				•	•	•				•						
Housing Material	Coated Aluminum	•	•	•		•	•	•				•						
	Polycarbonate				•													
Number of Probes	1 to 3		•					•										
	1 to 4					•	•			•	•							
	1 to 7	•		•	•							•						
Electrodes	Electrode Only								•				•	•	•	•	•	•

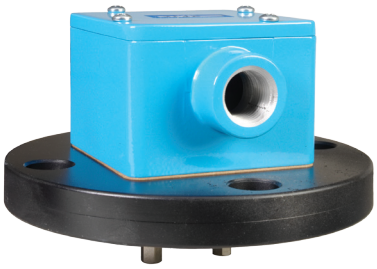
Designed for OEM

- Compact
- One-Piece Probe/Body Construction
- Quick Install & Connect
- Order Sized to Your Spec

These Warrick fitting are designed for OEM use. They are shipped ready for quick installation. Integrated probes eliminate pre-assembly tasks, and avoid potential vibration-induced loosening when installed with power tools. Choose from single- or multi-electrode probe series. Gems supplies these series with probes pre-cut to lengths you specify.

Series	3J	3H	3L
			
Probe Quantity	1, 2 or 3	1	1
Mounting Size	1" NPT	3/8" NPT or 5/8" NF/NFE	1/8" NPT
Materials			
Body	Case iron or red brass	316 stainless steel	316 stainless steel
Terminal Housing	Diecast aluminum, epoxy coated (optional)	—	—
Probe	316 stainless steel	316 stainless steel	316 stainless steel
Insulation	Teflon®	Teflon®	Teflon®
Probe Diameter	3/16"	1/4"	3/16"
Pressure/Temperature	0 psig @ 500°F	250 psig @ 406°F	150 psig @ 365°F
Approvals	—	U.L. File #MP2489, Vol. 1 Sec. 1; CSA; FM	U.L. File #MP2489
Use the **Bold** characters from the chart below to construct a product code.	**3J** **X** **X** **X** **X** Series **3J** Number of Probes **1** – One **2** – Two **3** – Three Body Material[1] **B** – Cast Iron **C** – Red Brass **D** – 316L SS Housing **0** – None **1** – Optional Housing Length of Probes[2] **A** – All probes 10-1/4˝ **C** – For lengths less than 10-1/4˝ indicate length as inches in decimal form	**3H** **X** **X** **X** Series **3H** Thread **1** – 3/8˝ - 18 NPT **2** – 5/8˝ - 18 UNF **3** – 5/8˝ - 24 UNEF Sleeve[1] **B** – Teflon® 3/4˝ Long Length (Feet)[2] **1** – One **2** – Two **3** – Three	**3L** **1** **X** **XX** Series **3L** Connection Size **1** – 1/8˝ NPT **2** – 2-1/4˝ NPT Insulator Length **D** – Teflon® 1-1/4˝ Length in Inches[1, 2] **02** – Two **03** – Three **04** – Four **05** – Five **06** – Six **07** – Seven **08** – Eight **09** – Nine **10** – Ten **11** – Eleven **12** – Twelve
Notes Custom options available. Consult factory.	1. Probes are stainless steel. 2. 10-1/4˝ maximum	1. Longer Teflon® sleeves are available. Contact factory or your representative 2. Custom probe and insulation lengths are available. Contact your representative.	1. 12˝ maximum 2. Indicate fractional inches in decimal form (01.75 = 1-3/4˝)

Top Mounting Fixtures – General Purpose

Series	3F	3G
		
Mounting Connection	Flange — 4.5" to 7.5" Dia.	NPT, Flange, Bracket (Plate)
Probe Quantity	1 thru 7	1 thru 7
Description	Designed for general purpose service, Series 3F flanged, pressure-tight fittings can handle up to 7 probes. They mate with standard pipe flanges coupled to the top of the vessel. Available in a variety of materials.	Series 3G fittings are designed for general purpose use, and are made of PVC to withstand corrosive conditions. The flanged assemblies are sized to accommodate up to 7 probes and to mate with standard flanges on the tops of vessels.
Materials		
Terminal Housing	Die-cast aluminum, epoxy coated	Polycarbonate
Body	Forged steel, red brass, 316 S.S., 1018 C.S, PVC	PVC
Probe Insulation	Teflon®	Teflon®
Pressure/Temperature	125 psig @ 323°F (cast iron) 225 psig @ 150°F (brass) 230 psig @ 100°F (316 S.S.) 275 psig @ 100°F (1018 C.S.) PVC – not rated	0 psig @ 150°F (PVC)
Approvals	CSA	—

Dimensions

No. of Probes	Nominal Pipe Flange Size	Diameter of Flange	Conduit Boss Thread Size	Terminal Housing Size (W" x D" x H")
1	1	4-1/2"	1/2" NPT	2-1/4 x 2-1/4 x 2-1/4
2-3	2	6"	1/2" NPT	3-1/4 x 3-1/4 x 2-3/8
4	2-1/2	7"	1/2" NPT	3-1/4 x 3-1/4 x 2-3/8
5-7	3	7-1/2"	3/4" NPT	4 x 4 x 2-1/2

How to Order

Use the **Bold** characters from the chart at right to construct a product code.

Electrode Probes are ordered separately.

3F X X

Series
3F

Number of Probes
1 thru **7**

Body Material
A – Forged Steel (Raised Face)
B – Red Brass (Flat Face)
C – 316 S.S. (Raised Face)
D – 1018 C.S. (Raised Face)
E – PVC (Flat Face)

3G X X X

Series
3G

Number of Probes
1 thru **7**

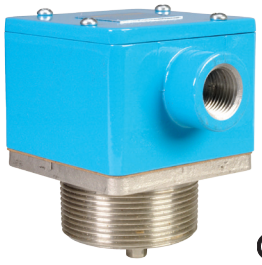
Base Size and Style
A – 2" Flange (6" O.D.)[3]
B – 3" Flange (7-1/2" O.D.)
C – 3-1/4" x 6" x 3/4" PVC Plate
E – 2" NPT[3]
H – 3" NPT

Probe Type
1 – 316 S.S. Inserts for Use with 1/4" Rod Extensions[4]
2 – Tapered Probe Assembly[5]
3 – Wire-Suspended Probes[6]

Compatible Electrode Probes (order separately)	3R, 3W[1], 3Y[2]	3R, 3T, 3W[1], 3Y[2]

Notes:
1. Requires 3Z1B Adapter and 3Z1A Wire.
2. Requires 3Z1B Adapter.
3. Maximum 4 probes.
4. Order 3R rods separately. See page E-24.
5. Order 3T rods separately. See page E-24.
6. Order 3W/3Y probes separately. See page E-25.

Custom options available. Consult factory.

3E	3N	3B
		
1" to 3" NPT	#10 Machine Screws from Underside	3/8" - 18NPT, 5/8" - 18UNF, 5/8" - 24UNEF
1 thru 7	1 thru 3	1
Series 3E fittings are cast metal, pressure-tight assemblies capable of handling 1-7 probes. Attachment to vessels is accomplished with external pipe threading. 3E Fittings require the use of 3R rigid or 3W wire suspended electrodes.	Series 3N fittings accommodate 1-3 probes operating at atmospheric pressure. The assembly mounts on a flat surface atop open tanks or closed vessels. 3N Fittings require the use of 3R rigid or 3W wire suspended electrodes.	Series 3B fittings are compact pressure tight assemblies that hold a single electrode probe for use in water and chemicals. These fittings incorporate a 1/4-20 female thread that must be combined with a Series 3R (rigid rod electrode) or Series 3W/3Y (wire suspended electrode) to make a complete assembly.
Die-cast aluminum, epoxy coated	Die-cast aluminum, epoxy coated	—
Cast iron, red brass, 316 stainless steel	PVC, red brass, 316 stainless steel	316 stainless steel
Teflon®	Teflon®	Teflon®
125 psig @ 353°F (cast iron) 250 psig @ 406°F (brass, 316 S.S.)	0 psig @ 150°F (PVC) 0 psig @ 500°F (brass, 316 S.S.)	400 psig @ 406°F (saturated steam)
U.L. File #MP2489, Vol. 1 Sec. 1; CSA; FM	CSA File #LR11644	U.L. File #MP2489, Vol. 1 Sec. 1; CSA; FM

	No. of Probes	Attachment to Vessel	Conduit Boss Thread Size	Terminal Housing Size (W" x D" x H")
3E	1	1" NPT	1/2" NPT	2-1/4 x 2-1/4 x 2-1/4
	2-3	2" NPT	1/2" NPT	3-1/4 x 3-1/4 x 2-3/8
	4	2-1/2" NPT	1/2" NPT	3-1/4 x 3-1/4 x 2-3/8
	5-7	3" NPT	3/4" NPT	4 x 4 x 2-1/2
3N	1-3	2-1/4" square flat pad, 1-1/2" dia. hole in top of vessel secured with #10 machine screws at the corners of a 1-1/2" square	1/2" NPT	2-1/4 x 2-1/4 x 2-1/4

3E X X

Series
3E

Number of Probes
1 thru **7**

Body Material
A – Cast Iron
B – Red Brass
C – 316 Stainless Steel

3N X X

Series
3N

Number of Probes
1 thru **3**

Body Material
A – PVC
B – Red Brass
C – 316 Stainless Steel

3B X B

Series
3B

Thread
1 – 3/8" - 18 NPT
2 – 5/8" - 18 UNF
3 – 5/8" - 24 UNEF

Metal Parts
B – 316 Stainless Steel

3R, 3W[1]	3R, 3W[1]	3R solid rod (up to 4') 3W[1] or 3Y[2] (greater than 4')

Custom options available. Consult factory.