

## RADAR LEVEL METER for CORROSIVE LIQUID RM-902T



### Features

- For storage tanks, in corrosive or aggressive media
- Up to 20 meters measuring range
- Beam angle is small energy concentration
- High-quality waterproof connector
- Pulse work launch frequency of low impact on people and the environment

### Technical Data

**Application :** Slightly corrosive liquid, volatile liquid tank  
**Measuring Range :** 0...5/10/15/20 m  
**Accuracy :** ±5 mm (within 0.5...20 m)  
**Resolution :** 1 mm  
**Beam angle :** 14°  
**Blind area :** The ends of the antenna  
**Frequency Range :** 26 GHz  
**Process perature :** -40...+130°C (PVDF), -40...+250°C (PFA)  
**Process Pressure :** -1...20 barg  
**Process Connection :** Flange DN80 or Flange DN100  
**Antenna material :** PVDF or PFA (see on page 3)  
**Flange material :** 304 Stainless steel  
**Head material :** Aluminum  
**Signal output :** 4...20 mA (2-wire), 4...20mA (4-wire), RS485 (option)  
**Power supply :** 24 Vdc  
**Power consumption :** Max. 22.5 mA / 1 W  
**Protection class :** IP67

### Application



Corrosive liquid



Volatile liquid

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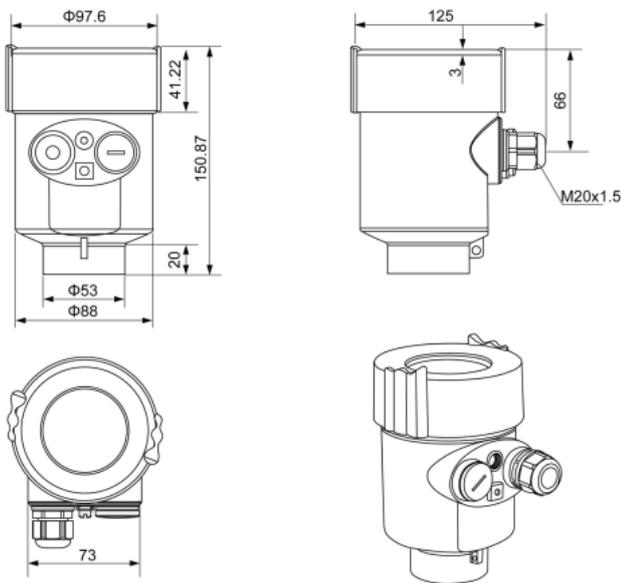
## RADAR LEVEL METER for CORROSIVE LIQUID

# RM-902T

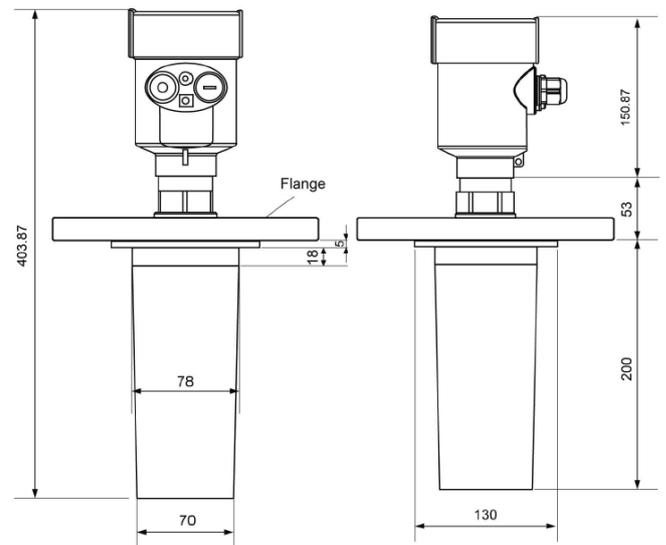
### Drawing and dimension

Unit : mm

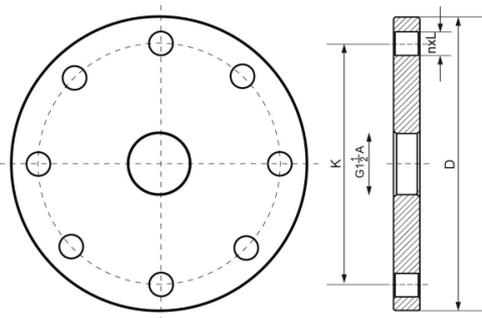
● **Head dimension**



● **Appearance size**



● **Flange dimension**



Flange Selection Tables				
Specification	Outer diameter (D)	Hole center distance (K)	Number of Hole (n)	Hole diameter (L)
DN80	Φ200	Φ160	8	18
DN100	Φ220	Φ180	8	18

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## RADAR LEVEL METER for CORROSIVE LIQUID RM-902T

### Operating condition

Operating pressure	Temperature resistance (°C)	
	PVDF (Polyvinylidene Fluoride)	PFA (Perfluoroalkoxy Alkane)
0.1 MPa (1 bar)	140	250
0.2 MPa (2 bar)	135	230
0.3 MPa (3 bar)	125	190
0.4 MPa (4 bar)	115	160
0.5 MPa (5 bar)	105	130
0.6 MPa (6 bar)	95	110
0.7 MPa (7 bar)	85	90
0.8 MPa (8 bar)	75	70
0.9 MPa (9 bar)	65	55
1.0 MPa (10 bar)	55	45
1.1 MPa (11 bar)	50	35
1.2 MPa (12 bar)	45	30
1.3 MPa (13 bar)	40	27
1.4 MPa (14 bar)	37	25
1.5 MPa (15 bar)	35	23
1.6 MPa (16 bar)	32	<i>not recommend*</i>
1.7 MPa (17 bar)	30	<i>not recommend*</i>
1.8 MPa (18 bar)	28	<i>not recommend*</i>
1.9 MPa (19 bar)	26	<i>not recommend*</i>
2.0 MPa (20 bar)	25	<i>not recommend*</i>

*\*if the product is used in these condition, it will be a cause of damage to product.*

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## RADAR LEVEL METER for CORROSIVE LIQUID RM-902T

### Type of Chemical resistance

Chemical group	List of chemicals	Level of resistance	
		PVDF (Polyvinylidene Fluoride)	PFA (Perfluoroalkoxy Alkane)
Acids	Hydrochloric acid (HCl)	A	A
	Sulfuric acid (H <sub>2</sub> SO <sub>4</sub> )	A	A
	Nitric acid (HNO <sub>3</sub> )	B	A
	Hydrofluoric acid (HF)	A	A
	Phosphoric acid (H <sub>3</sub> PO <sub>4</sub> )	A	A
	Acetic acid (CH <sub>3</sub> COOH)	A	A
	Chromic acid (H <sub>2</sub> CrO <sub>4</sub> )	A	A
Bases	Sodium Hydroxide (NaOH)	D	A
	Potassium Hydroxide (KOH)	D	A
	Ammonium Hydroxide (NH <sub>4</sub> OH)	C	A
Solvent	Acetone	D	A
	Methyl Ethyl Ketone (MEK)	D	A
	Toluene / Xylene	B	A
	Methanol / Ethanol	A	A
	Chloroform	B	A
	Tetrahydrofuran (THF)	D	A
Halogen & Oxygen	Chlorine Gas (Dry/Wet)	A	A
	Sodium Hypochlorite	A	A
	Hydrogen Peroxide (H <sub>2</sub> O <sub>2</sub> )	A	A
	Ozone	A	A
Others	Sodium Chloride	A	A
	Sea Water	A	A
	Benzene	B	A
	Diesel / Gasoline	A	A

#### Note :

- A = Excellent** : High resistance and no effect
- B = Good** : good resistance but there are opportunities for swelling or color changing
- C = Fair** : limited resistance and no recommended for long term
- D = Poor/Severe** : Do not use it, there will be damaged

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## RADAR LEVEL METER for CORROSIVE LIQUID RM-902T

### Ordering Code

<b>Series : RM-902T-X-X-X-X</b>			
<b>X : Level range</b>			
<b>5</b> : measuring range 0...5 m			
<b>10</b> : measuring range 0...10 m			
<b>15</b> : measuring range 0...15 m			
<b>20</b> : measuring range 0...20 m			
<b>X : Flange connection</b>			
<b>80</b> : DIN Flange PN16 DN80			
<b>100</b> : DIN Flange PN16 DN100			
<b>X : Signal output</b>			
<b>2A</b> : 4-20 mA (2-wires)			
<b>4A</b> : 4-20 mA (4-wires)			
<b>D</b> : RS485			
<b>X : Operating temperature</b>			
<b>PVDF</b> : -40...+130°			
<b>PFA</b> : -40...+250°C			

#### Example : RM-902T-10-100-2A-PFA

Radar level meter range 0...10 m, Flange connection DN100 , Signal output 4-20mA (2-wire), operating temperature -40...+250°C, PFA antenna

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