

The Radar Level Meters of Ensim Sensors 26 GHz series are excellent devices for no contact level measurement. The microwave impulses, emitted by the radar's antenna, travel at speed of light and a part of their energy, reflected by the surface of the medium to be measured, is received by the same antenna. The period of time (flying time) between the emission and the arrival of the impulses, is proportional to the existing distance between the antenna and the surface of the medium to be measured.

The electromagnetic wave travels at a very high speed (nanosecond), so it is difficult to identify it Ensim Sensors 26 GHz Radar Level Meters, thanks to their integrated management system, use a suitable demodulation technology that allows them to identify the period of time between the emission of the impulses and their corrected reception and, consequently, determine and measure the level. The Alphanumeric Display allows the user not just to enter the data for the level measurement, but even to display and isolate false echoes.

Applications : Level measurement in liquids, especially corrosive liquids, under easy working conditions



Technical specifications :

**ELW 102/202
ELW 103/203**

ELW 101

Range	0... 20 m	0... 10 m / 20 m / 30 m / 70 m
Accuracy	<± 2 mm	<± 3 mm ± 5 mm
Settings Menu Language	Turkish , English	
Process connection	G 1½ "A - NPT	
Antenna	Sealed Horn	
Antenna Materials	POM , PVDF , Delrin	
Housing Material	Aluminium	
Wetted Part Material	316 Stainless Steel	
Working temperature	(-) 40 °C... 85 °C	(-) 40 °C... (+) 150 °C Opt. 250 °C
Relative Humidity	< % 95	
Working Pressure	(-) 0,8 bar... (+) 3 bar	(-) 1 bar... (+) 40 bar
Interval of measure	~ 1 s.	
Beam Angle	20 °	18 ° / 12 ° / 8 °
Display Resolution	1 mm	
Power Supply	15...36 VDC 2 wires	
Absorption	Max. 22.5 mA	
Power Supply 4 wires	24 VDC ± 10 % ; 230 VAC ± % 10	
Absorption	Max. 4 VA, 2 W	
Output signal	2/4 wires - 4-20 mA	
Fixed signal for anomaly	20.5 mA; 22 mA ; 3.8 mA	
Integration time	0... 20 s., Programmable	
Weight	~ 2 ... 4 kg	
Protection Class (EN60529)	IP 66	
Communication	HART or WI-FI	

ELW

RADAR TYPE LEVEL TRANSMITTER

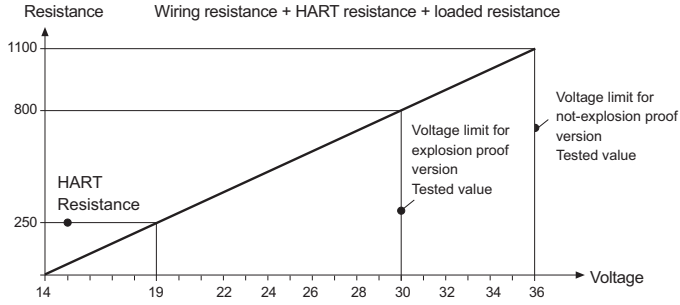
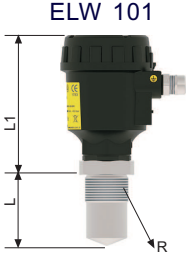
ELW 102
ELW 101 , ELW 201
ELW 103 , ELW 203

Advantages :

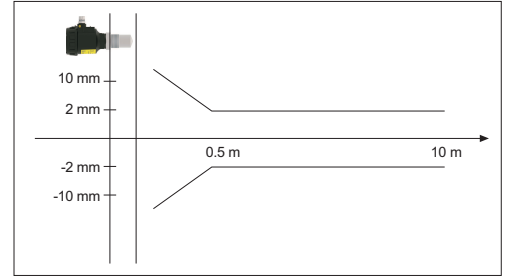
- Compact structure
- Easy to setup
- Durable mechanical construction
- High temperature models available



Diagram of loaded resistance, 2 wires version

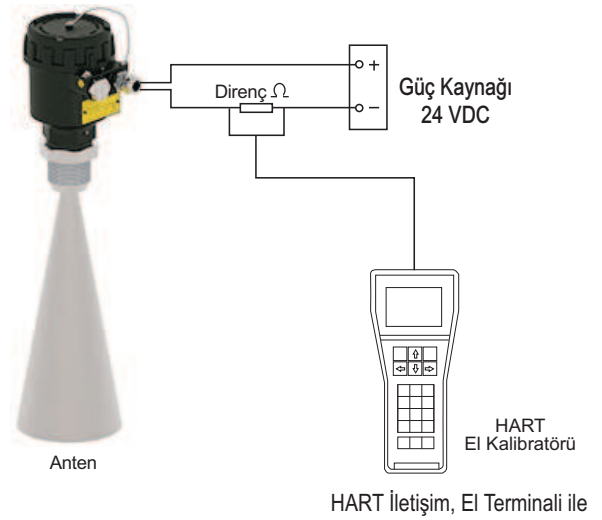
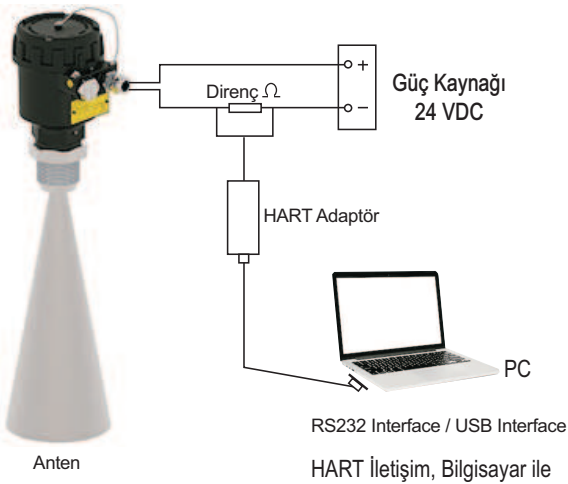


Precision and Distance Map



Dimension:

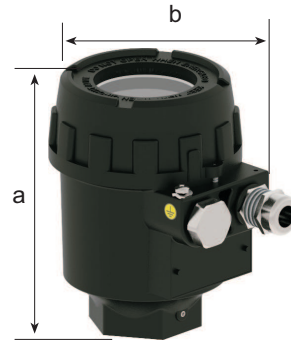
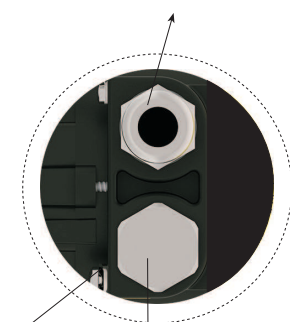
	Connection BSP (mm)	L (mm)	L1 (mm)
ELW 101 Plastic	1 1/2" BSP	78.5	155



DO NOT OPEN WHEN ENERGIZED
KEEP TIGHT WHEN CIRCUIT ALIVE



Aluminium Housing
Cable Plug
(Suitable Cable Diameter : \varnothing 6-12mm)



ORDER CODE	TYPE	MATERIAL	PROTECTION CLASS	TEMPERATURE (°C)	BOYUT a x b (mm)
360	B21x	Aluminum	IP 66	(-) 40...(+) 200	140 x 104

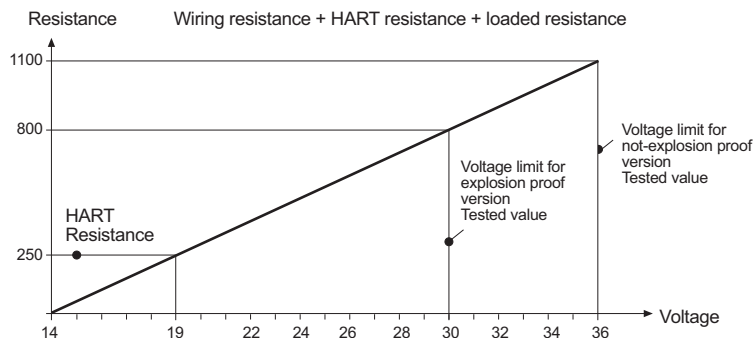


Dimensions:

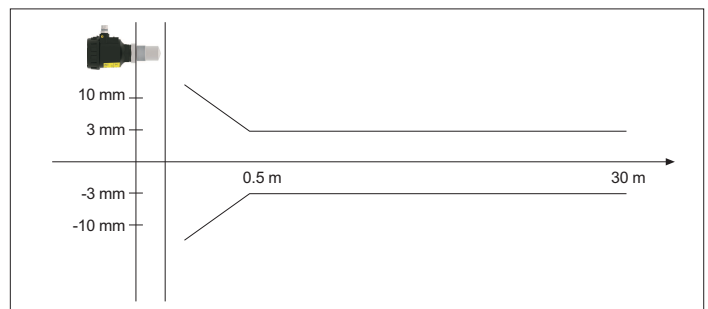
	Connection BSP (mm)	D (mm)	L (mm)	L1 (mm)
ELW 102	1 1/2" BSP	Ø 46	140	155
	1 1/2" BSP	Ø 76	227	155
	1 1/2" BSP	Ø 96	288	155
ELW 202 Cooling Apparatus	1 1/2" BSP	Ø 46	140	204
	1 1/2" BSP	Ø 76	227	204
	1 1/2" BSP	Ø 96	288	204

	Connection F (mm)	D (mm)	L (mm)	L1 (mm)
ELW 103	DN 50 - PN 16	Ø 46	140	172
	DN 80 - PN 16	Ø 76	227	172
	DN 100 - PN 16	Ø 96	288	172
ELW 203 Cooling Apparatus	DN 50 - PN 16	Ø 46	140	222
	DN 80 - PN 16	Ø 76	227	222
	DN 100 - PN 16	Ø 96	288	222

Diagram of loaded resistance, 2 wires version



Precision and Distance Map



Order Form : Please consider sample models when coding

1 MODEL ELW

Std. Type.....10 High Temperature Type.....20

2 CONNECTION TYPE

Thread.....1 Flanged.....3
Thread with horn.....2 Special.....x

3 MEASUREMENT RANGE

10 m.10 30 m.30
20 m.20 70 m.70
Special.....x

4 CONNECTION MEASUREMENT

1 1/2" BSP (Std.)008 DN 50 - PN 16 (Std.).....106
2" BSP.....009 DN 80 - PN 16.....108
DN 100 - PN 16.....109
Special.....x

5 WETTED PART MATERIAL

316 Stainless Steel.....02 PTFE.....66
Delrin.....63 Special.....x

6 OUTPUT

4-20mA Two Wires.....19 4-20mA Four Wires.....20
Special.....x

7 WORKING TEMPERATURE

(-) 40°C...(+) 150 °C (Std.)1 (-) 40°C...(+) 250 °C (Std.)2
Special.....x

8 HOUSING

Aluminium Housing , B21x IP 66.....360 Special.....x

9 OPTIONAL

None...../ 0 Special...../ x

EXAMPLE ELW - 102 - 10 - 008 - 19 - 1 - 360 / 0

Radar Level Transmitter, Model ELW 102 , 10 m. , 4-20 mA Two Wires, 1 1/2" BSP