ELW 800 series radar sensors are used for non-contact level measurement of liquids and solid materials.
It can be used to measure all kinds of liquids and solid materials.
It is suitable for working in high temperature, pressure and dusty environments.
It is not affected by sticky substance and condensate formation.

Electromagnetic waves propagate from the antenna of the measuring device and send them to the surface of the liquid or solid.
The filler reflects Em waves and is detected by the measuring instrument antenna.
The level is calculated by calculating the arrival and departure times of the waves in the measuring device and from the adjusted chamber height.
It provides high processing capability thanks to the use of two microprocessors and wave tracking algorithm.



Applications :
Almost for all liquids and solid particules.
Especially with abbrasive/aggresive liquid level measurement applications.
Such as ; Chemical,and pharmaceutical industries, food and plastic industries, power plants, oil and cement factories. Water, acid and oil tanks,
Cement and klin silos. Grain and livestock feed silos.
Fire water tanks, rivers, waste material and waste water applications.

ELW

RADAR TYPE LEVEL TRANSMITTER

ELW 801
ELW 802
ELW 803
ELW 804
ELW 1000 , ELW 1200 (OEM)

Advantages :
* Durable mechanical construction
* High temperature models available
* Geniş kullanım alanı
* Köpük ve buhardan etkilenmez.
* Tozlu ortamlarda kullanıma uygun model seçenekleri.

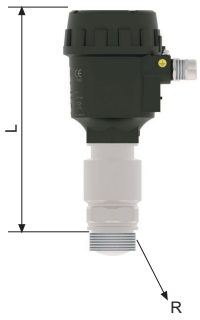
Model : 83-2026-002

Technical Specifications :

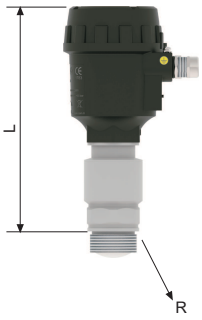
	ELW 801, 802	ELW 803, 804
Material to Measure	Liquid, Solid Particulate Materials, Aggressive Liquids	
Range	0… 30 m	120 m
Accuracy	<± 2 mm	<± 3 mm <± 5 mm
Settings Menu Language	English	
Sensitivity	± 2 mm	
Repeatability	± 1 mm	
Resolution	1 mm	
Frequency	76 - 81 GHz	
Dielectric Constant (ε)	Min. 1,4 (Selectable five diffirent way.)	
Response Time	< 2 sec	
Sampling Frequency	54 GHz	
Indicator and Adjustment	LCD Display	
Cable Input	M20x1,5mm	
Electric Connection	Terminal	
Process Connection	G 1½" (Std.) , G 3" , DN50, DN80 Flanged	
Antenna Type	Flange Lens	
Antenna Material	PTFE	
Housing Material	**Aluminum Injection AlSi2Fe Black (RAL9005) (Std)-Plastic**	
Connection Material	PTFE / 304 /316 Stainless Steel	
Working Temperature	(-) 40°C… 85°C	(-) 40°C… (+) 200°C
Ambient Temperature	(-) 20°C… 60°C	
Relative Humidity	< % 95	
Working Pressure	(-) 0,8 bar... (+) 3 bar	(-) 1 bar... (+) 20 bar
Beam Angle	7° , 3°	14° / 7° / 3°
Supply Voltage	15...36 VDC 2 Wire Version	
Power Absorption	< 0,5 W	
Output Signal	4-20 mA 2 Wire + HART (Resolution 1,6 mikro A)	
Error Signal	20.5 mA; 22 mA ; 3,9 mA (Adjustable)	
Integration Time	0... 20 s., Programmable	
Weight	~ 2 ... 4 kg	
Protection Class	IP 66 (EN60529)	

Sample :

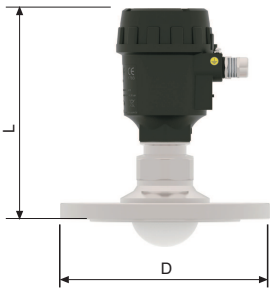
ELW 801



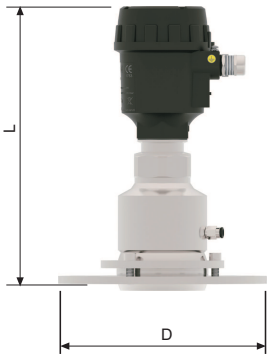
ELW 802



ELW 803



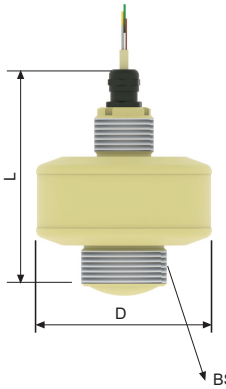
ELW 804



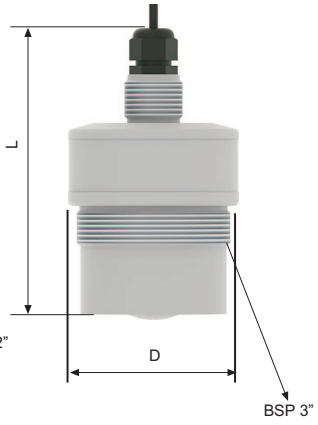
Technical Specifications :

	ELW 1000	ELW 1200
Material to Measure	Liquid	Solid Particulate Materials
Range	0… 8 m. / 0… 15 m. / 30 m.	
Settings Menu Language	English	
Sensitivity	± 2 mm	
Repeatability	± 1 mm	
Resolution	1 mm	
Frequency	76 - 81 GHz	
Response Time	< 2 sec	
Adjustment	RS 485 / HART / Bluetooth	
Cable Input	M16x1,5mm	
Electric Connection	Cable (Ø 4-8 mm)	
Process Connection	G 1½" (Std.)	
Antenna Type	Compact	
Connection, Antenna and Body Material	PP	
Working Temperature	(-) 40°C… 80°C	
Ambient Temperature	(-) 20°C… 60°C	
Relative Humidity	< % 95	
Working Pressure	(-) 0,8 bar... (+) 3 bar	(-) 1 bar... (+) 30 bar
Beam Angle	8°	
Supply Voltage	15...36 VDC 2 Wire Version	
Power Absorption	< 0,5 W	
Output Signal	4-20 mA 2 Wire + HART (Resolution 1,6 micro A) / RS485 Modbus	
Integration Time	0... 20 s., Programmable	
Weight	~ 1 kg	
Protection Class	IP 67	IP 68 (EN60529)
Settings	Suitable for Bluetooth with . (Blueset)	

ELW 1000



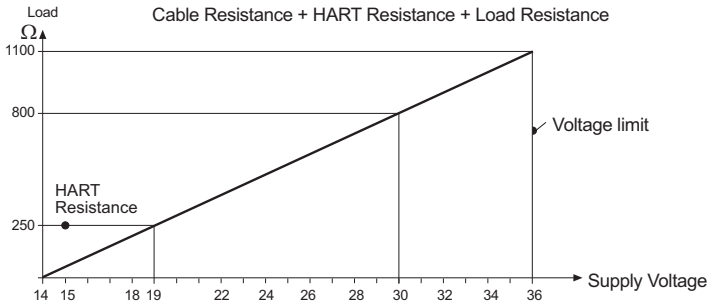
ELW 1200

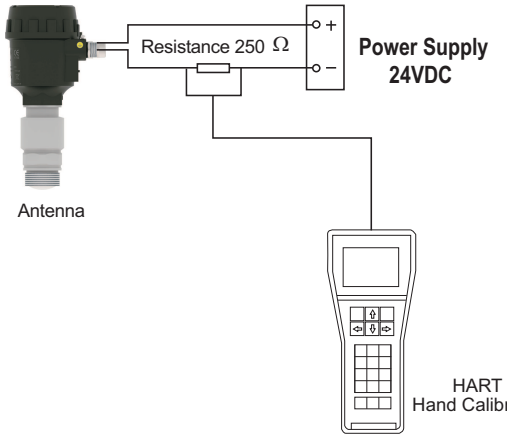


Dimensions:

	Connection R (mm)	D (mm)	Angle (°)	L (mm)
ELW 801	1 1/2" BSP	Ø 39	7°	230
	3"	Ø 70	3°	230
ELW 802 Plastic	1 1/2" BSP	Ø 38	7°	230
	3" BSP	Ø 70	3°	230
ELW 803	DN80	Ø 200	6°	225
	DN100	Ø 220	3°	225
ELW 804	DN100	Ø 220	3°	292
ELW 1000	1 1/2" BSP	Ø 98	8°	100
ELW 1200	3" BSP	Ø 98	3°	155

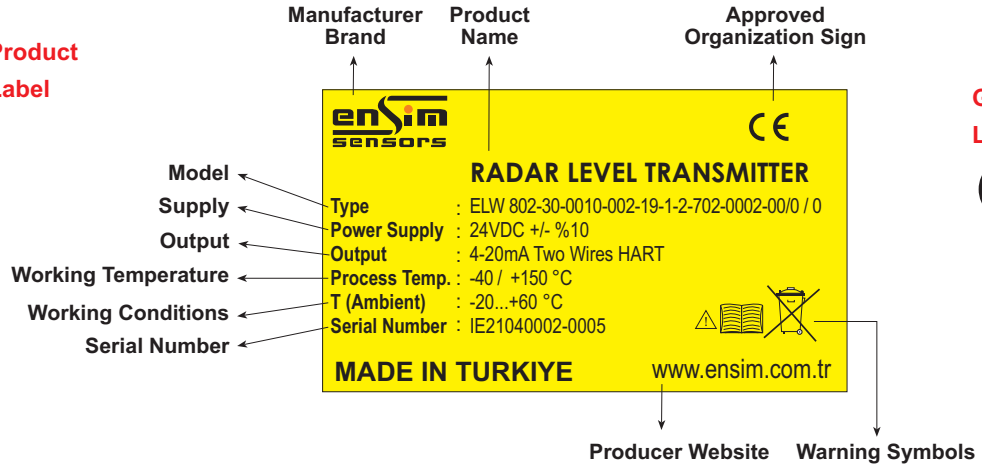
Diagram of loaded resistance (2 wires version)





HART Communication with hand terminal

Label : **Product Label**



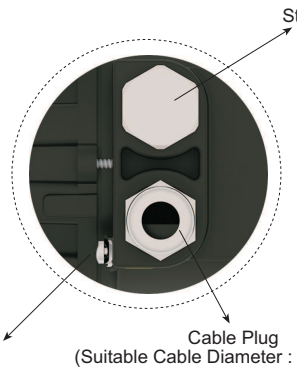
Grounding Label



Housing :

DO NOT OPEN WHEN ENERGIZED
KEEP TIGHT WHEN CIRCUIT ALIVE







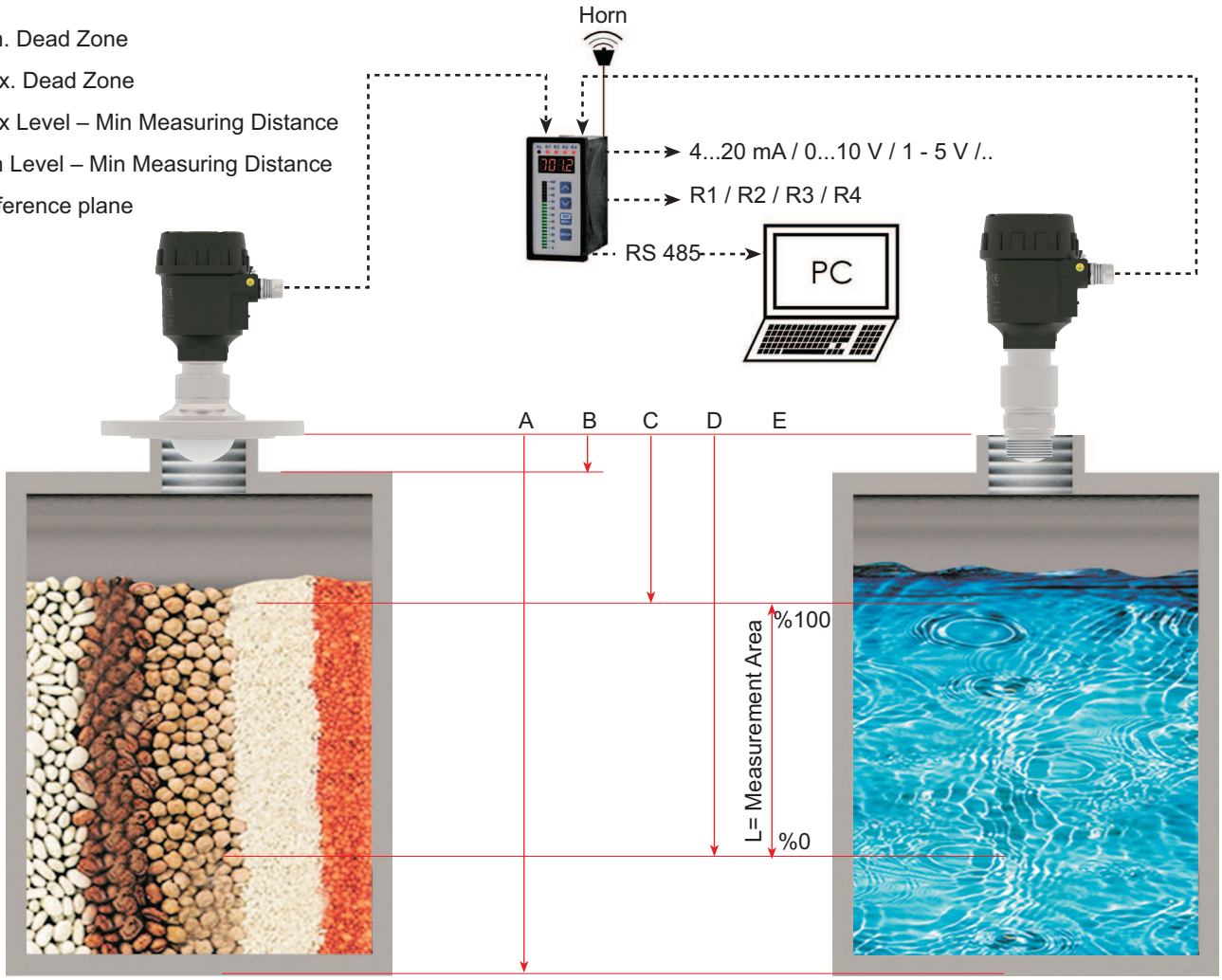
B21x

Top View

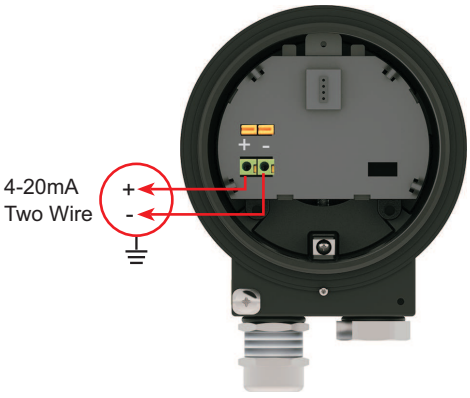


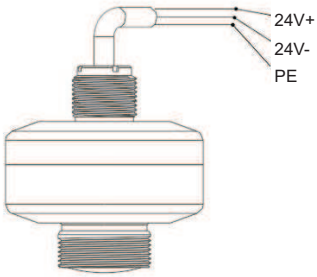
ORDER CODE	TYPE	MATERIAL	PROTECTION CLASS	TEMPERATURE (°C)	SIZE a x b (mm)
702	B21x	Aluminium	IP 66	(-) 40...(+) 200	140 x 104
103	B20p	Plastic (PP)	IP 66	(-) 40...(+) 150	132 x 104

A : Min. Dead Zone
B : Max. Dead Zone
C : Max Level – Min Measuring Distance
D : Min Level – Min Measuring Distance
E : Reference plane

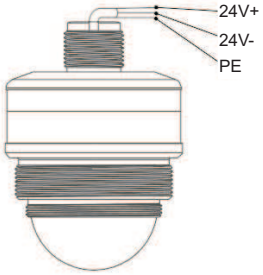


Electrical Connection:









Display :



LED Display

Setting Buttons

ESC : Escape (ESC)

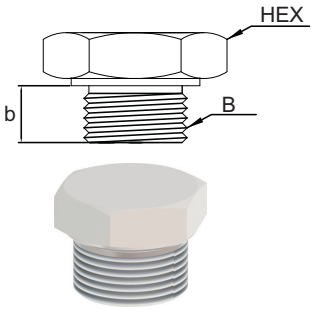
▲ : Backward

▼ : Forward

OK : Enter (OK)

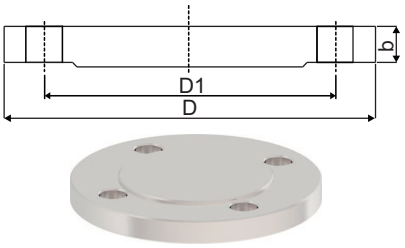
Mechanical Connection:

Thread



Order Code	(ISO228-1) Dimension B	Hex [mm]	Stem Lenght b [mm]
0009	1 1/2" BSP	60	23
0012	2" BSP	70	23

Flanged



Order Code	(ISO1092-1) PN 16	D (mm)	D1 (mm)	b (mm)
0505	DN 50	165	125	18
0507	DN 80	200	160	20
0508	DN100	220	180	20

Order Code	(ISO1092-1) PN 40	D (mm)	D1 (mm)	b (mm)
0705	DN 50	165	125	20
0707	DN 80	200	160	20
0708	DN 100	235	190	24

Order Code	(ANSI B16.5) 150 LBS	D (mm)	D1 (mm)	b (mm)
1005	DN 50	152,4	121	19
1006	DN 65	177,8	139,7	22,2
1007	DN 80	190,5	152,4	23,8
1008	DN 100	228,6	157,2	23,8

Protection Class :



Material : 304 Stainless Steel
Welded manufacturing
Opens - Closes Hinged
To Protect Against external conditions.



Cooling

Material : 304 Stainless Steel
Welded Production
Apllicable to all models
For process temperature max 250°C

Parts :


Cover
Glass
Seal
Bracelet
Display
Electronic Unit
Grounding Screw
Seal
Product Label
Grounding Label
Cable Gland
O-Ring
Plug
Fastening Screw
Thread
Antenna
O-Ring
Cable Gland
Plug
Sabitleme Setiskuru
Flange
Antenna

Order Form : Please consider sample models when coding

1 MODEL ELW

Std. Type.....8
OEM Type (Liquid).....10
High Temperature Type.....9
OEM Type (Solid).....12

2 CERTIFICATE

Yok..... 0
(EN10204-3-1) Material Certification 1

3 CONNECTION TYPE

PTFE Antenna.....1
Metal Antenna.....2
Flanged Antenna.....3
Movable Flange.....4
PP Antenna.....00

4 MEASURAMENT RANGE

8 m. 08
15 m. 15
30 m. 30
70 m. 70
120 m. 120
Special.....x

5 WORKING TEMPERATURE

(-) 40°C...(+) 150 °C (Std.) 1
(-) 40°C...(+) 85 °C (Std.) 2
(-) 40°C...(+) 250 °C (Std.) 3
(-) 40°C...(+) 80 °C (OEM Type).....4
Special.....x

6 CONNECTION MEASUREMENT

1 1/2" BSP (Std.).....0010
3" BSP.....0014
DN 50 - PN 16 (Std.).....0505
DN 80 - PN 16.....0507
DN 100 - PN 16.....0508
Special.....x

7 OUTPUT

4-20mA Two Wire HART. (Std.).....19
4-20mA RS485.....46
4-20mA Two Wire.....20
Special.....x

8 HOUSING

None.....000
Aluminium Housing, B21x IP 66.....702
Plastic Housing , B20p.....103
Special.....x

9 CONNECTION and ANTENNA

316 Stainless Steel.....0002
PP (For OEM).....0062
PTFE.....0066
Special.....x

10 ELECTRICAL CONNECTION

Terminal.....00
PVC Cable (Max. 60°C For OEM).....80
Special.....x

11 OPTIONAL

None...../ 0
Protection Sleeve–For External side of tank, 304 St.St. .../ K6
Cooling Apparatus ..... / H
Special...../ x

EXAMPLE ELW - 801 - 30 -1 - 0010 -19 - 103 - 0002 - 00 / 0

Radar Level Transmitter, Model ELW 801 , 30 m. , 4-20 mA Two Wires with HART comm. ,1 1/2" BSP

*1 **It has to be used with "Cooling Apparatus" code "/ H"**

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