



An ISO 9001:2008 Certified Company



Level Measurement Solutions
for over *2* Decades

**NON CONTACT
RADAR LEVEL TRANSMITTER**

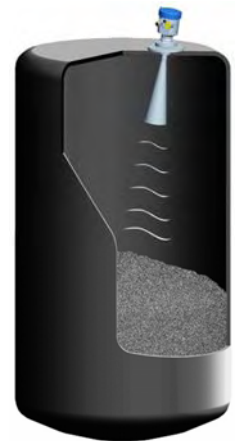
EIP COMPACT WAVE 26 GHZ – CW Series

PULSE RADAR LEVEL INSTRUMENTS (26 GHz)

DESCRIPTION

The Radar Level Meters of **EIP COMPACT WAVE 6.3 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: EIP COMPACT WAVE 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 .

EIP_WARE is a software for the configuration and calibration of the units with a PC is available too, it has HART communication protocol and it is used with a standard HART MODEM (mandatory).

An advanced microprocessor and the "Echo Discovery" technology make the device suitable for measurements in critical areas with hard conditions, such as high temperatures and high pressure. The function "False Echo Storage" identifies the correct echo, even if there is a false echo: in this way a correct measurement is gained. An integrated temperature sensor compensates the temperature in real time.

The Radar Level Meters can be installed both in metallic or non metallic tanks; their use is not harmful to humans or environment.

PRODUCTS OVERVIEW

COMPACT WAVE CW55



COMPACT WAVE CW56



COMPACT WAVE CW57



COMPACT WAVE CW58



COMPACT WAVE CW59

EIP SERIES WAVE COMPACT 26 GHZ

TECHNICAL DETAILS

CW55 for liquids

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

Range:	0... 10 m – 30 m with Horn Antenna Ø80 mm
Accuracy:	± 5 mm
Process connection:	G1½ "A - NPT
Antenna:	Sealed Horn
Materials: antenna:	PVDF
housing:	plastic PBT-FR / Aluminium / AISI
flanges:	PTFE
Working temperature:	-40 ÷ 130°C
Ambient temperature:	-40 ÷ 80°C
Relative humidity:	<95%
Working Pressure:	-1 ÷ 3 bar
Resistance to vibrations:	mechanical vibrations 10m/s ² , 10÷150Hz
Frequency:	26 GHz
Beam Angle:	22°
Interval of measure:	~1sec
Interval of updating:	~1sec
Display Resolution:	1mm
Power Supply - 2 wires version:	
- Input voltages:	15÷36Vdc
- Absorption:	max. 22.5mA
- Ripple allowed:	<100Hz, U _{ss} >1V; 100Hz÷100KHz, U _{ss} <10mV
Power Supply - 4 wires version:	
- Standard input voltages:	24Vdc ±10%; 230Vac ±10%
- Absorption:	max. 4VA, 2W
Output signal:	2/4 wires - 4-20 mA - HART
Resolution:	1,6µA
Fixed signal for anomaly:	20.5mA; 22mA; 3.8mA
Integration time:	0÷20s, programmable
Cables entry:	1x PG 13.5
Weight:	~2 kg



EIP SERIES WAVE COMPACT 26 GHZ

TECHNICAL DETAILS

CW56 for liquids

Applications: Level measurement in liquids, suitable for highly erosive media. For example: Oil Tanks.
Anticoagulation, Anti-attachment, anti-adhesion.

Range:	0...30 m
Accuracy:	± 3 mm
Process connection:	G1½" A / NPT - Flanges DN50, 80, 100, 125
Antenna:	Horn Ø 48, 78, 98, 98 Lengthen, 123
Materials: antenna:	AISI 316L / PTFE / PP
housing:	plastic PBT-FR / Aluminium / AISI
flanges:	AISI 316L / PTFE / PP
Working temperature:	-40 ÷ 250°C
Ambient temperature:	-40 ÷ 80
Relative humidity:	<95%
Working Pressure :	-1 ÷ 40 bar
Resistance to vibrations:	mechanical vibrations 10m/s², 10÷150Hz
Frequency:	26 GHz
Beam Angle:	8° - solving the problem of large blind zone and multiple echo of 6GHz radars in small tanks Ø 40 >22°; Ø 48 >18°; Ø 75 >10° ; Ø 95 >8°
Interval of measure:	~1sec
Interval of updating:	~1sec
Resolution display:	1mm
Supply 2 wires version:	
- Input voltages:	15÷36Vdc
- Absorption:	22.5mA
- Ripple allowed:	<100Hz, Uss>1V; 100Hz÷100KHz, Uss<10mV
Supply 4 wires version:	
- Standard input voltages:	24Vdc ±10%; 230Vac ±10%
- Absorption:	max. 4VA, 2W
Output signal:	2/4 wires 4-20 mA, HART
Fixed signal for anomaly:	20.5mA; 22mA; 3.8mA
Integration time:	0÷20s, programmable
Cables entry:	1x PG 13.5
Weight:	up to ~5 kg (depending on the Flange Ø)



EIP SERIES WAVE COMPACT 26 GHZ

TECHNICAL DETAILS

CW57 for liquids

Applications: Measurement of highly erosive liquids in food and medical industry.
Anticorrosion and anticoagulation antenna.

Range:	0...20 m
Accuracy:	±3 mm
Process connection:	Flanges DN50, 80, 100, 150 AISI316L
Antenna:	Horn Ø 40, 48, 75, 95
Materials: antenna:	SS 316L & PTFE
housing:	plastic PBT-FR / Aluminium / AISI
flanges:	SS 316L / PTFE
Working temperature:	-40...150°C
Ambient temperature:	-40 ÷ 80°C
Relative humidity:	<95%
Working Pressure :	-1 ÷ 5 bar
Resistance to vibrations:	mechanical vibrations 10m/s ² , 10÷150Hz
Frequency:	26 GHz
Beam Angle:	Ø50 > 18°; Ø80...150 > 10°;
Interval of measure:	~1sec
Interval of updating:	~1sec
Resolution display:	1mm
Supply 2 wires version:	
- Input voltage:	15÷36Vdc
- Absorption:	max. 22.5mA
- Ripple allowed:	<100Hz, U _{ss} >1V; 100Hz÷100KHz, U _{ss} <10mV
Supply 4 wires version:	
- Standard input version voltage:	24Vdc ±10%; 230Vac ±10%
- Absorption:	max. 4VA, 2W
Output signal:	2/4 wires 4-20 mA, HART
Resolution:	1,6µA
Fixed signal for anomaly:	20.5mA; 22mA; 3.8mA
Time of integration:	0÷20s, programmable
Cables entry:	1x PG 13.5
Weight	up to ~6 kg (depending on the Flange Ø)



EIP SERIES WAVE COMPACT 26 GHZ

TECHNICAL DETAILS

CW58 for liquids and solids

Applications: Level measurement in a wide range of bulk solids: dusty, high temperature, low dielectric constant. Ideal for cement, power and Steel Industry. Anti-moisture, anti-crystallization, anti.adhesion, dustproof.

Range:	0...70 m
Accuracy:	±15 mm for 70 m / 0.1% of calibrated range
Process connection:	G 1 ½" A-NPT Flanges DN50, 80,100, 125,150, 200, 250 PP / PTFE / SS 316L / GIMBAL
Antenna:	Horn Ø 48, 78, 98, 98 (Lengthen), 123 Parabolic Ø 198, 246
Materials: antenna:	AISI 316L / PP / PTFE
housing:	plastic PBT-FR / Aluminium / AISI
flanges:	AISI 316L / PP / PTFE
Working temperature:	-40...400°C
Ambient temperature:	-40 ÷ 80°C
Relative humidity:	<95%
Working Pressure :	-1 ÷ 40 bar
Resistance to vibrations:	mechanical vibrations 10m/s ² , 10÷150Hz
Frequency:	26 GHz
Beam Angle:	Ø40 > 22°; Ø48 > 18°; Ø75 > 10°; Ø95 > 8°;
Interval of measure:	~1sec
Interval of updating:	~1sec
Resolution display:	1mm
Supply 2 wires version:	
- Input voltage:	15÷36Vdc
- Absorption:	max. 22.5mA
- Ripple allowed:	<100Hz, Uss>1V; 100Hz÷100KHz, Uss<10mV
Supply 4 wires version:	
- Standard input version voltage:	24Vdc ±10%; 230Vac ±10%
- Absorption:	max. 4VA, 2W
Output signal:	2/4 wires 4-20 mA, HART
Resolution:	1,6µA
Fixed signal for anomaly:	20.5mA; 22mA; 3.8mA
Time of integration:	0÷20s, programmable
Cables entry:	1x PG 13.5
Weight	up to ~10 kg (depending on the Flange Ø)



EIP SERIES WAVE COMPACT 26 GHZ

TECHNICAL DETAILS

CW59 for liquids and solids

Applications: Storage / Process vessels under hard working conditions.

Range:	0...70 m
Accuracy:	15 mm
Process connection:	G 1 ½" A-NPT Flanges DN50, 80, 100, 125, 150, 200, 250 SS 316L / PP / PTFE / GIMBAL
Antenna:	Horn Ø 48, 78, 98, 98 Lengthen, 123 Parabolic Ø 245 SS 316L
Materials: antenna:	SS 316L / PP / PTFE
housing:	plastic PBT-FR / Aluminium / AISI
flanges:	AISI 316L
Working temperature:	-40...250°C
Ambient temperature:	-40...80°C
Relative humidity:	<95%
Working Pressure :	-1 ÷ 40 bar
Resistance to vibrations:	mechanical vibrations 10m/s ² , 10÷150Hz
Frequency:	26 GHz
Beam Angle:	Ø40 > 22°; Ø48 > 18°; Ø75 > 10°; Ø95 > 8°;
Interval of measure:	~1sec
Interval of updating:	~1sec
Resolution display:	1mm
Supply 2 wires version:	
- Input voltage:	15÷36Vdc
- Absorption:	max. 22.5mA
- Ripple allowed:	<100Hz, U _{ss} >1V; 100Hz÷100KHz, U _{ss} <10mV
Supply 4 wires version:	
- Standard input version voltage:	24Vdc ±10%; 230Vac ±10%
- Absorption:	max. 4VA, 2W
Output signal:	2/4 wires 4-20 mA, HART
Resolution:	1,6µA
Fixed signal for anomaly:	20.5mA; 22mA; 3.8mA
Time of integration:	0÷20s, programmable
Cables entry:	1x PG 13.5
Weight	uo to ~10 kg (depending on the Flange Ø)



EIP SERIES WAVE COMPACT 26 GHZ

ORDERING CODE

CW55 – Range 0...10 Mtrs

CW56 – Range 0...30 Mtrs.

CW57 – Range 0...20 Mtrs.

CW58 – Range 0...70 Mtrs. (liquids and solids)

CW59 – Range 0...70 Mtrs. (liquids and solids)

P Standard

Type of antenna / Material

B (T Type) Horn Antenna Ø 48mm / Stainless Steel 316L

C (T Type) Horn Antenna Ø 78mm / Stainless Steel 316L

H (T Type) Horn Antenna Ø 98mm / Stainless Steel 316L

I (T Type) Horn Antenna Ø 98mm (Lengthen) / Stainless Steel 316L

J (T Type) Horn Antenna Ø 123mm / Stainless Steel 316L

M (V Type) Horn Antenna Ø 98mm / SS 316L / PTFE Dust Shield

N (V Type) Horn Antenna Ø 98mm (Lengthen) / SS 316L / PTFE Dust Shield

P (V Type) Horn Antenna Ø 123mm / SS 316L / PTFE Dust Shield

Q (W Type) Parabolic Antenna Ø 198mm (Lengthen) / SS 316L

R (W Type) Parabolic Antenna Ø 246mm (Lengthen) / SS 316L

X Special type (on request)*

Process Connection / Material

GP (H Type) Thread G 1½ A / SS 316L

GA (H Type) Thread G 1½ NPT / SS 316L

GB (G Type) Thread G 1½ A / PP

GE (I Type) Thread G 1½ A / SS 316L / -60...+150°C

GX Special type (on request)*

Flange / Material

Material Type	PP (L TYPE)	PTFE (L TYPE)	SS316L (MTYPE)	GIMBAL (PP) (N TYPE)	GIMBAL (SS) (P TYPE)
DN50	FA	FB	FC	----	----
DN80	GA	GB	GC	----	----
DN100	HA	HB	HC	HD	HE
DN125	IA	IB	IC	ID	IE
DN150	JA	JB	JC	----	----
DN200	KA	KB	KC	----	KE
DN250	LA	LB	LC	----	LE

F0 None

FX Special type (on request)*

EIP SERIES WAVE COMPACT 26 GHZ

ORDERING CODE

Seal / Working Temperature

- 2 Viton / -60...150°C
- 3 Kalrez / -60...250°C

Electronic

- B 4...20 mA HART 2 wires
- C 4...20 mA / 22,8...26,4 VDC / HART 4 wires**
- D 4...20 mA / 198...242 VAC / HART 4 wires**

Housing Material / Protection

- B Plastic / IP66
- A Aluminium / IP67
- D Aluminium (2 chambers) / IP67**
- G Stainless Steel 316L / IP67

Wiring

- M M20x1.5
- N ½ NPT

Display / Programming

- A YES



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About EIP

EIP was founded about two decades ago, since then the company has been able to establish its reputation in the field of Design / Manufacture Supply of accurate reliable POINT LEVEL AND INVENTORY CONTROL SYSTEMS which have proven to be in satisfactory operation under harsh environmental conditions. Apart from India EIP products have also been proven in other countries.

EIP aims to provide not only stable operating system but also to re-engineer equipments and systems as per the needs of the customers. This has been possible due to our wide experience in this field backed by constant technological development and absorption of new technologies developed world-wide.

EIP's strong endeavour to provide the best solution to its customers has gone a long way in introducing the most advanced level measurement technology from time to time. Recent value addition to this is the STRAIN GAUGE/CELL which solves the inventory problems with high accuracy, easy installation and low maintenance.

EIP has also diversified its portfolio to provide Zero leakage Knife Gate Valves, Butterfly Valves and Water Control Gate.

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