

EIP

ENVIRO CONTROLS

An ISO 9001:2008 Certified Company



Level Measurement Solutions

for over

3 Decades

COMPACT/REMOTE WAVE 26 GHZ – CW Series

PULSE/ FMCW RADAR LEVEL INSTRUMENTS (26 GHz)

DESCRIPTION

The Radar Level Meters of **CW COMPACT/REMOTE WAVE 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.

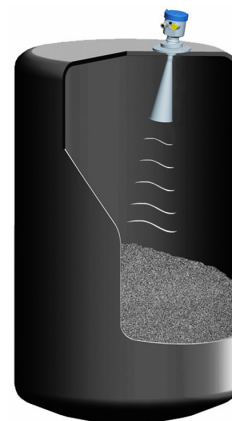
The electromagnetic wave travels at a very high speed (nanosecond), so it is difficult to identify it: CW COMPACT/REMOTE WAVE 26 GHz Radar Level Meters, thanks to their integrated management system, use a suitable demodulation technology that allows them to identify the period of time between the emission 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 .

CW_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 "EchoDiscovery" 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/REMOTE WAVE CW55



COMPACT/REMOTE WAVE CW56



COMPACT/REMOTE WAVE CW57



COMPACT/REMOTE WAVE CW58



COMPACT/REMOTE WAVE CW59



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

PRODUCTS OVERVIEW

Remote Electronics- RU:



Housings:

HOUSING CODE	A	B / C	D
MATERIAL	Plastic	Aluminium Alloy (available also in Two-Chamber version)	SS 316L

Process Connections:

TYPE	E	E1	F	G	H	I	J	K
MATERIAL	SS 316L		PTFE	PP	SS 316L			
PRESSURE	-1...40 bar		-1...3 bar	Normal Pressure	-1...40 bar	-1...5 bar	-1...40 bar	-1...40 bar
TEMPERATURE in °C	-60...+130	-60...+250	-40...+130	-40...+80	-60...+150	-60...+130	-60...+250	-60...+400

CW SERIES WAVE COMPACT/REMOTE 26 GHZ

PRODUCTS OVERVIEW

Flanges:

				
TYPE	L	M	N	P
MATERIAL	PTFE / PP	SS 316L	PP – GIMBAL	SS 316L – GIMBAL
FEATURES	Rust-Proof	High Temp / Pressure	Standard Temp / Pressure	High Temp / Standard Pressure

Antennas:

						
TYPE	R	S	T	U	V	W
MATERIAL	PTFE	PP (PTFE shield)	SS 316L	PTFE	SS 316L (PTFE shield)	SS 316L
DIMENSIONS in mm	Ø44, Length 137 Ø 44, Length 237	Ø98, Length 280 Ø98L, Length 440	Ø48, Length 140 Ø78, Length 227 Ø98, Length 288 Ø98L, Length 474 Ø123, Length 620	DN50 DN80 DN100	Ø98, Length 300 Ø98L, Length 480 Ø123, Length 625	Ø96 Ø246
	Rust-Proof	Standard Temp / Pressure	High Temp / Pressure	Rust-Proof / High Pressure	Standard Temp / Pressure	High Temp / Pressure

CW SERIES WAVE COMPACT/REMOTE 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: $-40 \div 130^{\circ}\text{C}$

Storage temperature: $-40 \div 80^{\circ}\text{C}$

Relative umidity: $<95\%$

Working Pressure: $-1 \div 3$ bar

Resistance to vibrations: mechanical vibrations 10m/s^2 , $10 \div 150\text{Hz}$

Frequency: 26 GHz

Beam Angle: 22°

Interval of measure: $\sim 1\text{sec}$

Interval of updating: $\sim 1\text{sec}$

Display Resolution: 1mm

Power Supply - 2 wires version:

- Input voltages: $15 \div 36\text{Vdc}$

- Absorption: max. 22.5mA

- Ripple allowed: $<100\text{Hz}$, $U_{ss} > 1\text{V}$; $100\text{Hz} \div 100\text{KHz}$, $U_{ss} < 10\text{mV}$

Power Supply - 4 wires version:

- Standard input voltages: $24\text{Vdc} \pm 10\%$; $230\text{Vac} \pm 10\%$

- Absorption: max. 4VA, 2W

Output signal: 2/4 wires - 4-20 mA - HART

Resolution: $1,6\mu\text{A}$

Fixed signal for anomaly: 20.5mA; 22mA; 3.8mA

Resistance - 2 wires version: ref. to the following diagram

Resistance - 4 wires version: max 500 ohm

Integration time: $0 \div 20\text{s}$, programmable

Cables entry: 1x PG 13.5

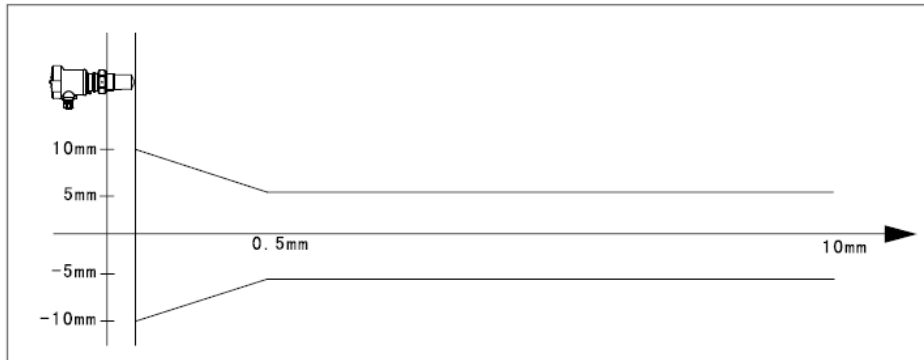
Weight: ~ 2 kg



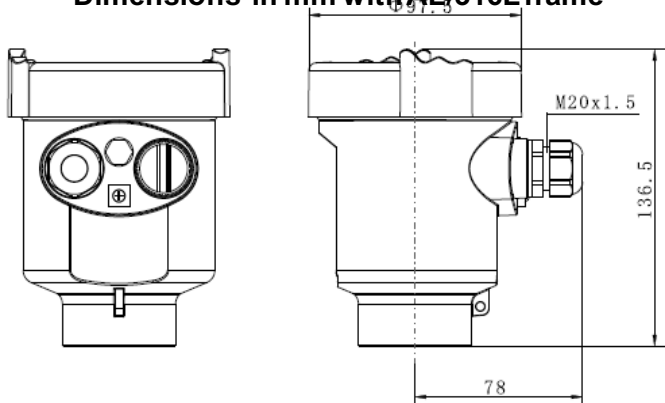
CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS CW55

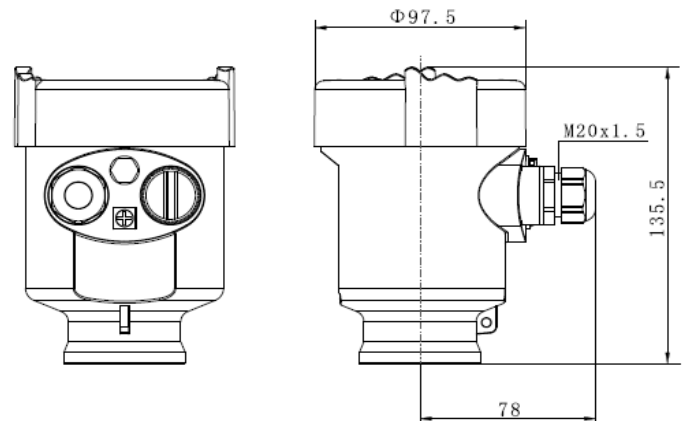
Precision



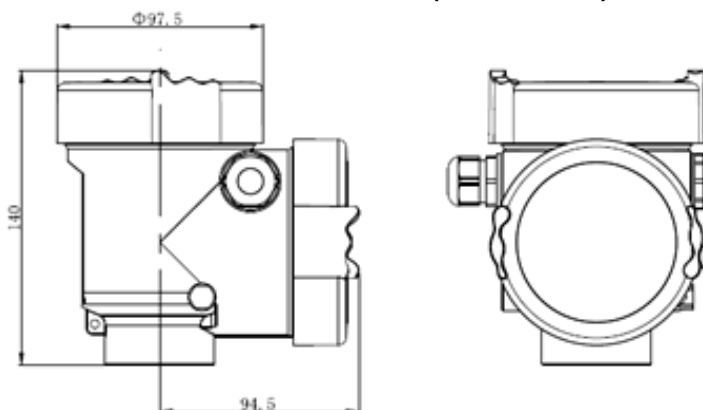
Dimensions in mm with AL/316L frame



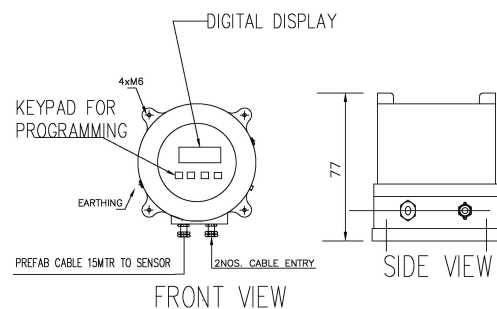
Dimensions in mm with PBT-FRL frame



Dimensions in mm with AL (2 chambers) frame



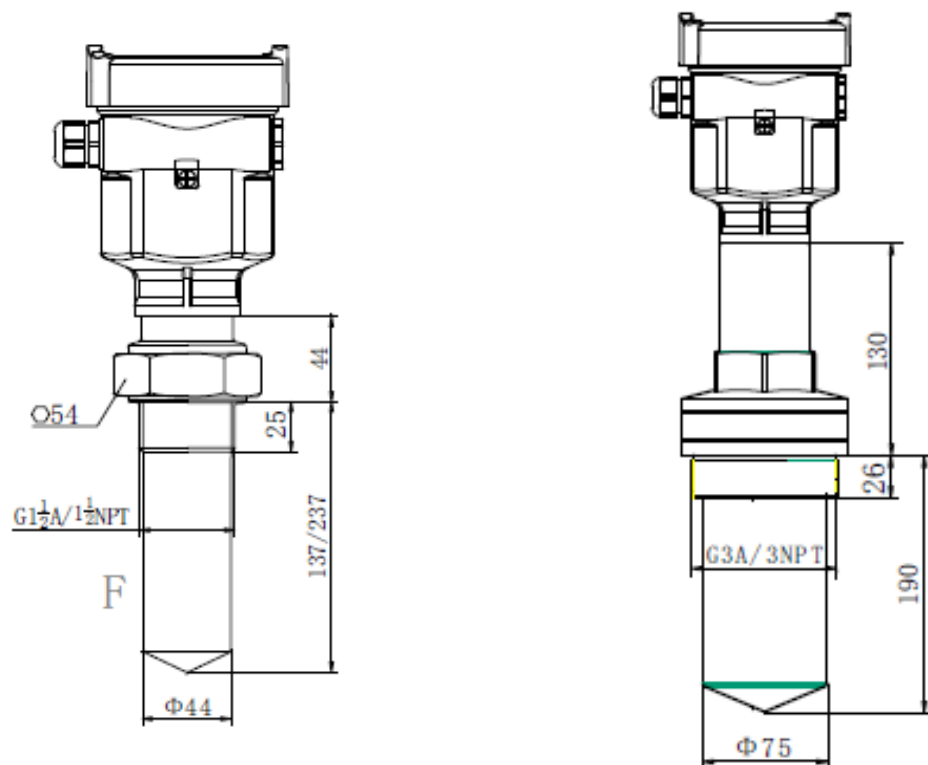
REMOTE ELECTRONICS—RU IN IP65 ENCLOSURE



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

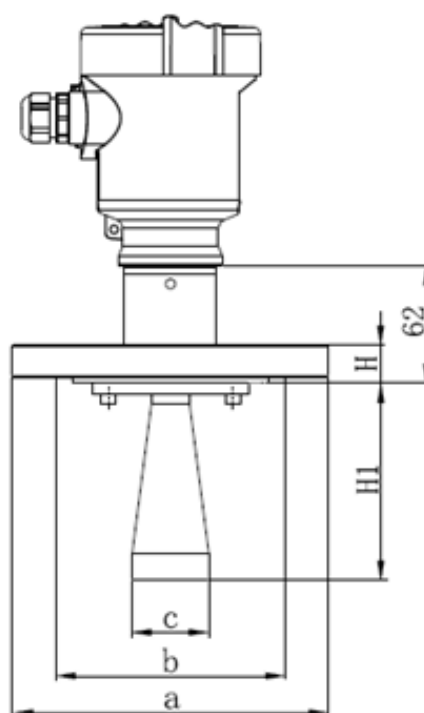
TECHNICAL DETAILS CW55

Dimensions in mm, threaded version



Dimensions in mm, flanged version

	a	b	c	H	H1
DN50	Ø165	Ø125	Ø48	20	120



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

ORDERING CODE CW55

P Standard

RU Remote Electronics and Sensor

Types of Antenna / Material / Working Temperature

B (R Type) Plastic Sealed Rod Ø50 / PTFE/ -40...130°C

Connections / Materials

GP (F Type) Thread G 1½ A

NP (F Type) Thread G 1½ NPT

FA (L Type) Flange DN50 / PTFE

FX Special Connection (on request)*

Process Connection Length

A 100 mm

Electronic

B 4...20 mA / HART 2 wires/ Intrinsic Safe Ex 'ia' (OPTIONAL)*

C 4...20 mA / 22,8...26,4 VDC / HART 4 wires **

D 4...20 mA / 198...242 VAC / HART 4 wires **

Material of Housing / Protection

A Aluminium / IP67

B Plastic / IP66

D Aluminium (2 chambers) / IP67/Explosion Proof Ex 'd' (OPTIONAL)*

G AISI 316L / IP67

Wiring

M M20x1.5

N ½ NPT

Display / Programming

A YES

* To be Specified during ordering

CW SERIES WAVE COMPACT/REMOTE 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.

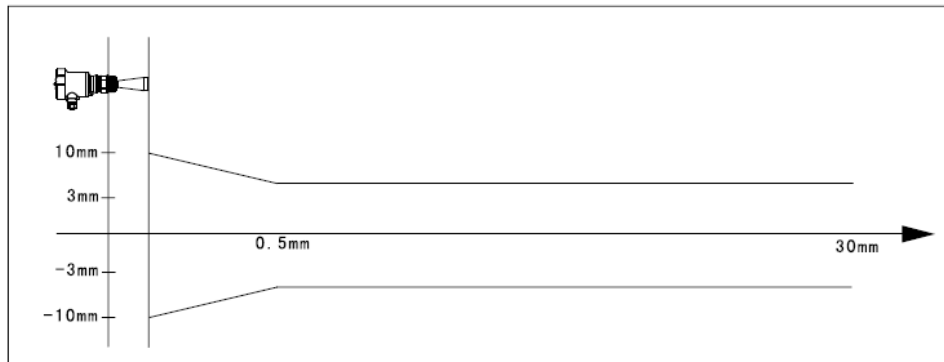
Range:	0...30 m
Accuracy:	± 3 mm
Process connection:	G1½" A/ NPT - Flanges DN50, 80, 100, 125
Antenna:	Horn Ø 48, 78, 98, 98 Lengthen, 123
Materials:	antenna: AISI 316L / PTFE / PP
	housing: plastic PBT-FR / Aluminium / AISI
	flanges: AISI 316L / PTFE / PP
Working temperature:	-40 ÷ 250°C
Storage temperature:	-40 ÷ 80°C
Relative umidity:	<95%
Working Pressure :	-1 ÷ 40 bar
Resistance to vibrations:	mechanical vibrations 10m/s ² , 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
Resistance 2 wires version:	ref. to the following diagram
Resistance 4 wires version:	max 500 ohm
Integration time:	0÷20s, programmable
Cables entry:	1x PG 13.5
Weight:	up to ~5 kg (depending on the Flange Ø)



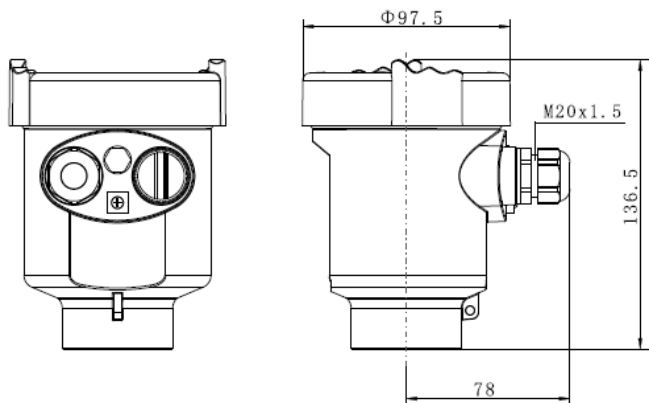
CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS CW56

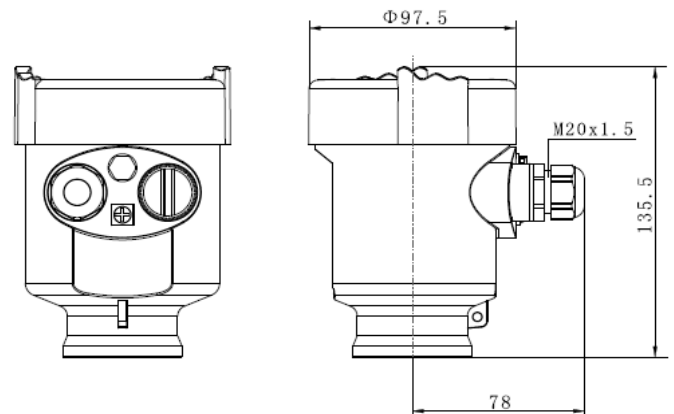
Precision



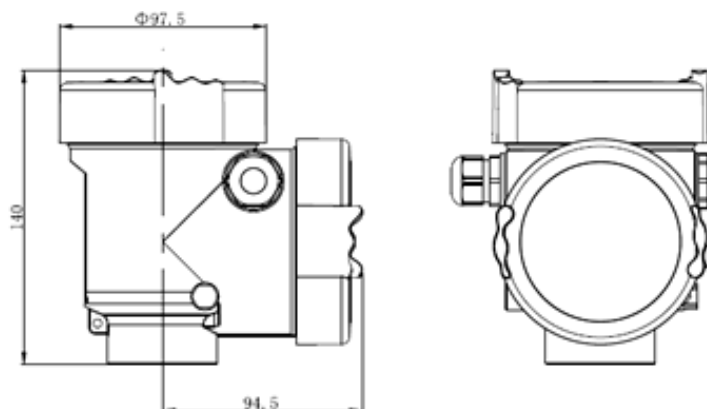
Dimensions in mm with AL/316L frame



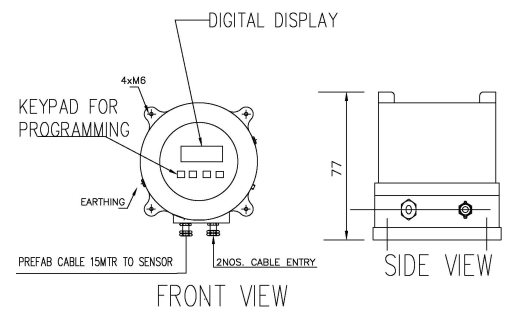
Dimensions in mm with PBT-FRL frame



Dimensions in mm with AL (2 chambers) frame



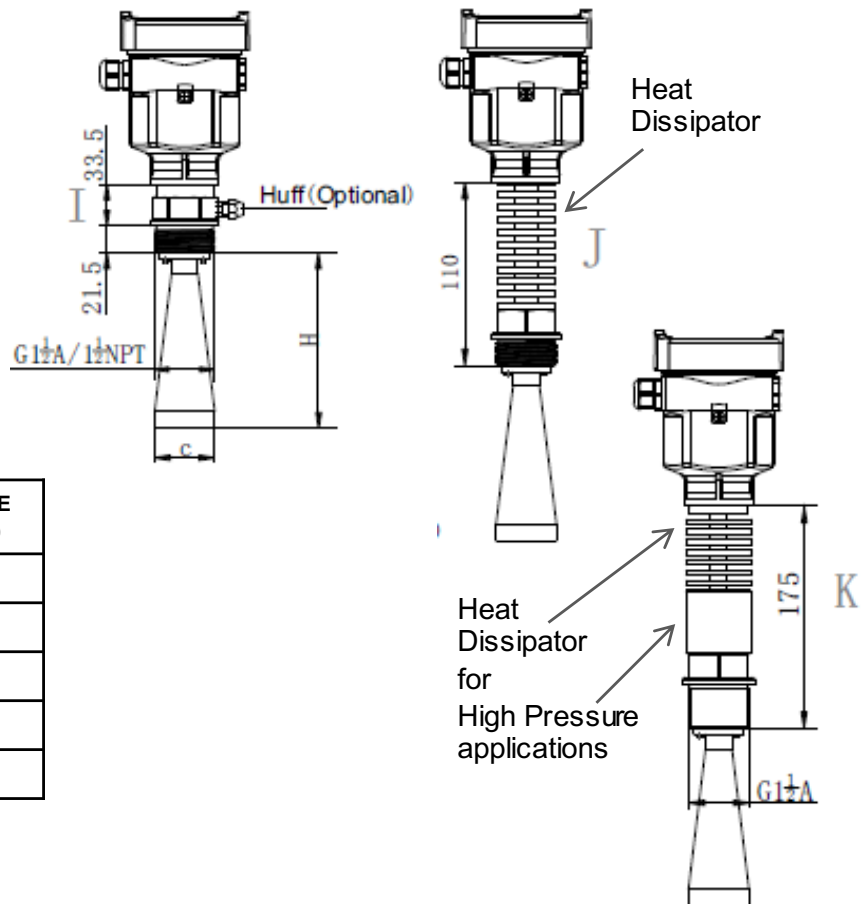
REMOTE ELECTRONICS—RU IN IP65 ENCLOSURE



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS CW56

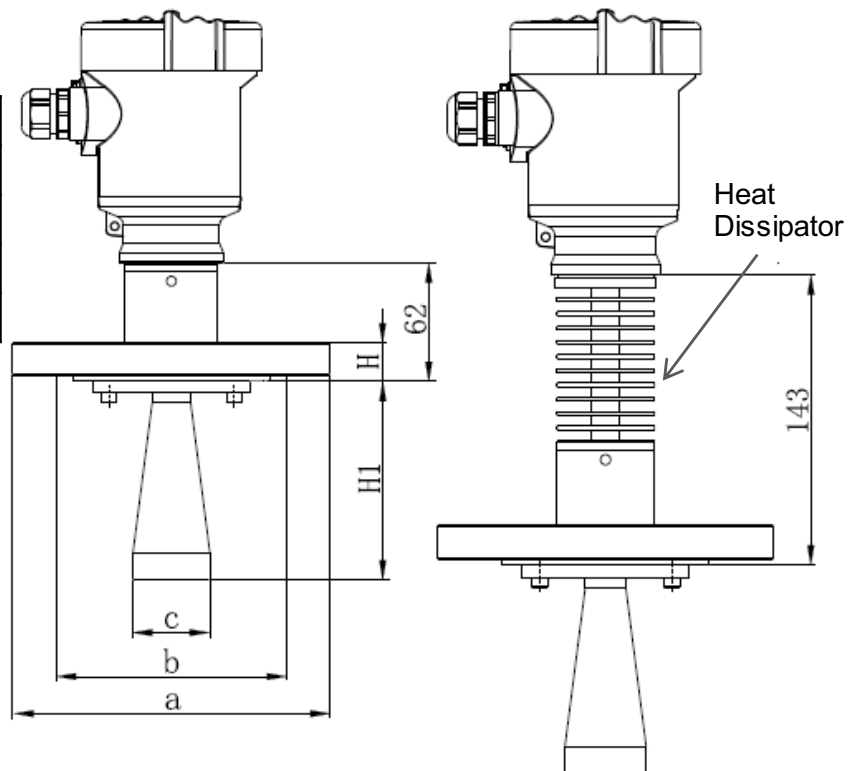
Dimensions in mm, threaded version



C	H (316L)	H (316L Shield)	H (PTFE Shield)
Ø48	140	-	-
Ø78	227	-	-
Ø98	288	300	280
Ø98 Lengthen	474	480	440
Ø123	620	625	-

Dimensions in mm, flanged version

	a	b	c	H	H1
DN50	Ø165	Ø125	Ø48	20	120
DN80	Ø200	Ø160	Ø75	24	200
DN100	Ø220	Ø180	Ø95	20	300
DN125	Ø285	Ø240	Ø95	22	300



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

ORDERING CODE CW56

P Standard

RU Remote Electronics and Sensor

Type of Antenna/ Material

- B (T Type) Horn Antenna Ø 48mm / AISI 316L
- C (T Type) Horn Antenna Ø 78mm / AISI 316L
- H (T Type) Horn Antenna Ø 98mm / AISI 316L
- I (T Type) Horn Antenna Ø 98mm (Lengthen) / AISI 316L
- J (T Type) Horn Antenna Ø 123mm / AISI 316L
- M (V Type) Horn Antenna Ø 98mm / AISI316L/ PTFE Dust Shield
- N (V Type) Horn Antenna Ø 98mm (Lengthen)/ PTFE Dust Shield
- P (V Type) Horn Antenna Ø 123mm / AISI 316L / PTFE Dust Shield
- X Special Version (on request)*

Process Connection / Material

- GP (H Type) Thread G 1½ A / AISI 316L
- GA (H Type) Thread G 1½ NPT / AISI 316L
- GB (G Type) Thread G 1½ A / PP
- GC (J Type) Thread G 1½ NPT / AISI 316L / -60...+250°C
- GE (I Type) Thread G 1½ A / SS 316L / with sweeping
- GX Special Version (on request)*

Flange / Material

Material Type	PP (L TYPE)	PTFE (L TYPE)	SS 316L (M TYPE)
DN50	FA	FB	FC
DN80	GB	GB	GC
DN100	HA	HB	HC
DN150	IA	IB	IC

F0 None

FX Special type (on request)*

Seal / Process Temperature

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

CW SERIES WAVE COMPACT/REMOTE 26 GHZ

ORDERING CODE CW56

Electronic

B 4...20 mA / HART 2 wires/Intrinsic Safe Ex 'ia' (OPTIONAL)*

C 4...20 mA / 22,8...26,4 VDC / HART 4 wires**

D 4...20 mA / 198...242 VAC / HART 4 wires**

Housing / Protection

A Aluminium / IP67

B Plastic / IP66

D Aluminium (2 chambers) / IP67/Explosion Proof Ex 'd' (OPTIONAL)*

G Stainless Steel 316L / IP67

Cable Entry

M M20x1,5

N 1/2 NPT

Display / Programming

A Yes

* To be Specified during ordering

CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS

CW57 for liquids

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

Anticorrosion and anticoagulation antenna.

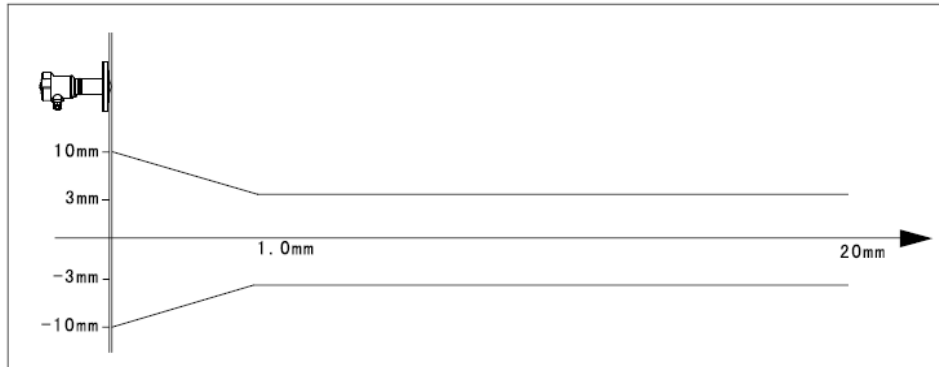
Range:	0...20 m
Accuracy:	±3 mm
Process connection:	Flanges DN50, 80, 100, 150 AISI316L
Antenna:	Horn Ø 40, 48, 75, 95
Materials: antenna:	SS 316L & PTFE
housing:	plastic PBT-FR / Aluminium / AISI
flanges:	SS 316L / PTFE
Working temperature:	-40...150°C
Storage temperature:	-40 ÷ 80°C
Relative umidity:	<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
Resistance 2 wires version:	ref. to the following diagram
Resistance 4 wires version:	max 500 ohm
Time of integration:	0÷20s, programmable
Cables entry:	1x PG 13.5
Weight	up to ~6 kg (depending on the Flange Ø)



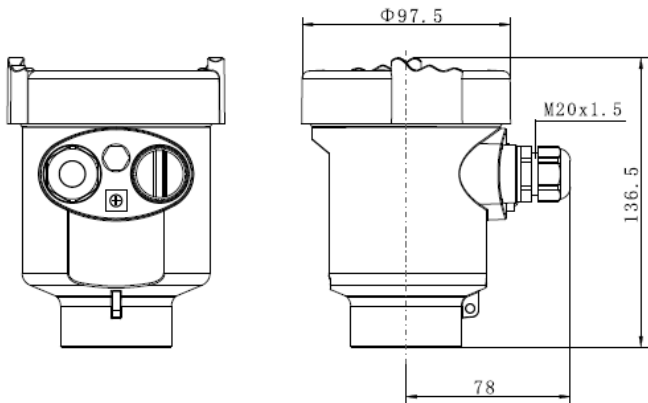
CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS CW57

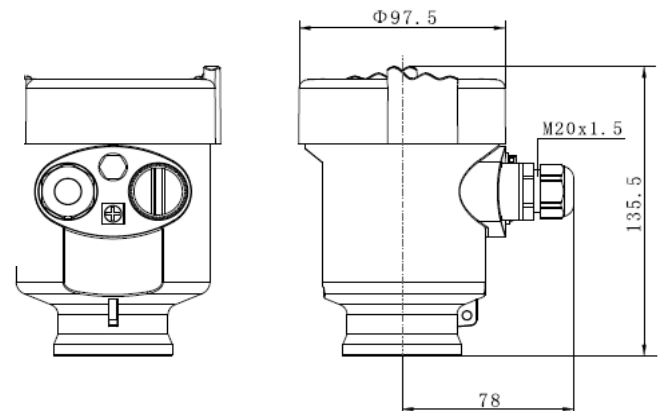
Precision



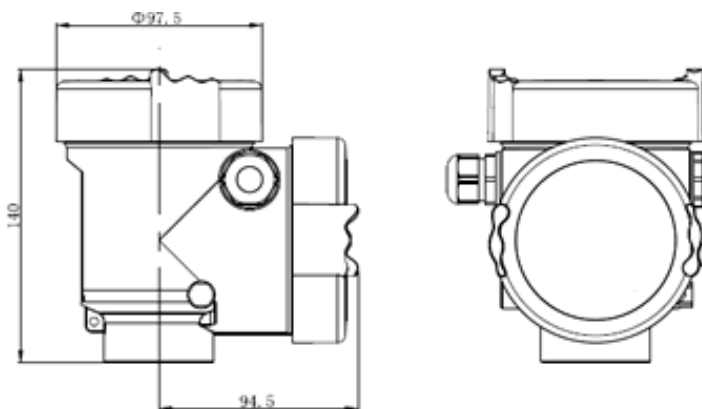
Dimensions in mm with AL/316L frame



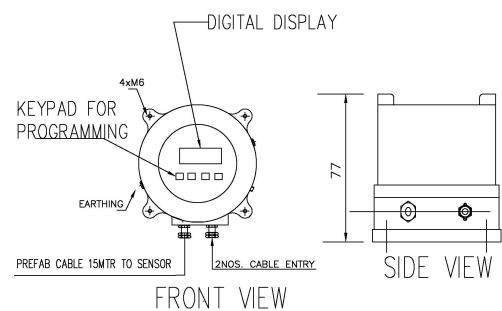
Dimensions in mm with PBT-FRL frame



Dimensions in mm with AL (2 chambers) frame



REMOTE ELECTRONICS—RU IN IP65 ENCLOSURE

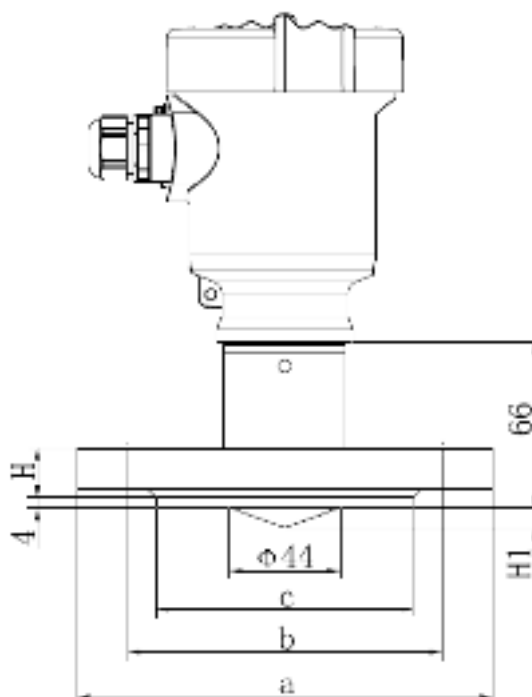


CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS CW57

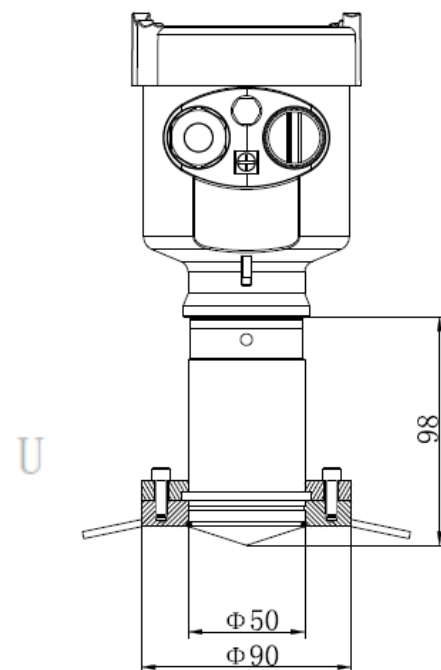
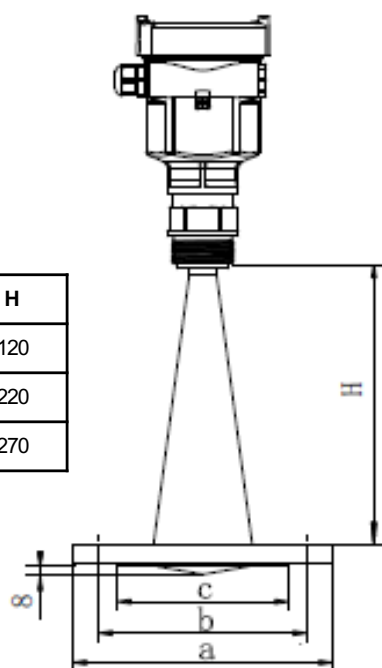
Dimensions in mm, flanged version

	a	b	c	H	H1
DN50	Ø165	Ø125	Ø102	20	8
DN80	Ø200	Ø160	Ø138	24	14
DN100	Ø220	Ø180	Ø158	20	14



Dimensions in mm, TRI-CLAMP sanitary connection

	a	b	c	H
DN50	Ø165	Ø125	Ø99	120
DN80	Ø200	Ø160	Ø132	220
DN100	Ø220	Ø180	Ø156	270



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

ORDERING CODE CW57

P Standard

RU Remote Electronics and Sensor

Type of antenna/ Material / Process Connection

B (U Type) Stainless Steel 316L & PTFE Flange DN50

C (U Type) Stainless Steel 316L & PTFE Flange DN80

D (U Type) Stainless Steel 316L & PTFE Flange DN100

X Special Type (on request)*

Electronic

B 4...20 mA / HART 2 wires/Intrinsic Safe Ex 'ia' (OPTIONAL)*

C 4...20 mA / 22,8...26,4 VDC / HART 4 wires**

D 4...20 mA / 198...242 VAC / HART 4 wires**

Housing / Protection

A Aluminium / IP67

B Plastic / IP66

D Aluminium (2 chambers) / IP67/Explosion Proof Ex 'd' (OPTIONAL)*

G Stainless Steel 316L / IP67

Cable Entry

M M 20 x 1,5

N ½ NPT

Display / Programming

A Yes

* To be Specified during ordering

CW SERIES WAVE COMPACT/REMOTE 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
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
Storage temperature:	-40 ÷ 80°C
Relative umidity:	<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
Resistance 2 wires version:	ref. to the following diagram
Resistance 4 wires version:	max 500 ohm
Time of integration:	0÷20s, programmable
Cables entry:	1x PG 13.5
Weight	up to ~10 kg (depending on the Flange Ø)



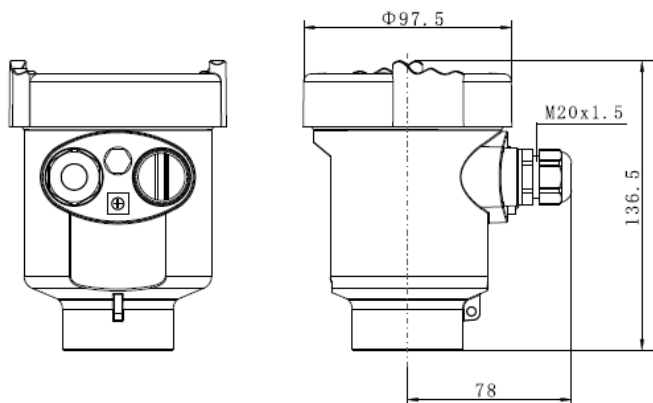
CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS CW58

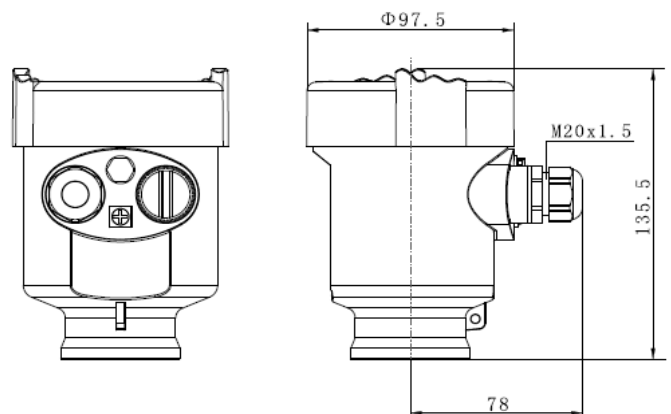
Precision



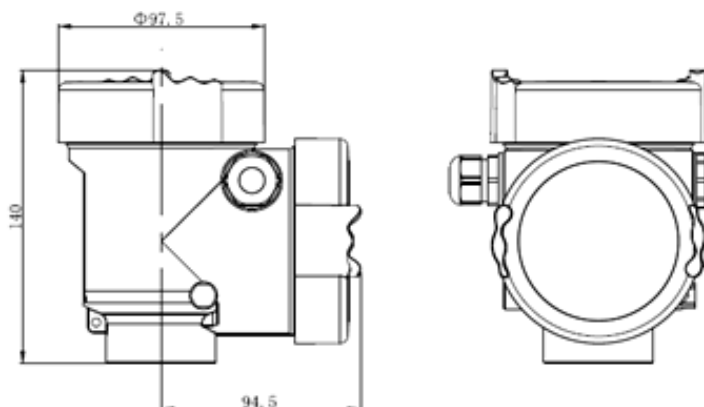
Dimensions in mm with AL/316L frame



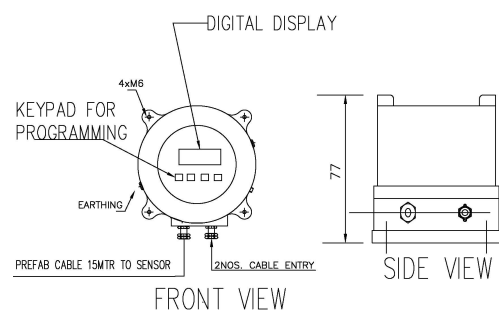
Dimensions in mm with PBT-FRL frame



Dimensions in mm with AL (2 chambers) frame



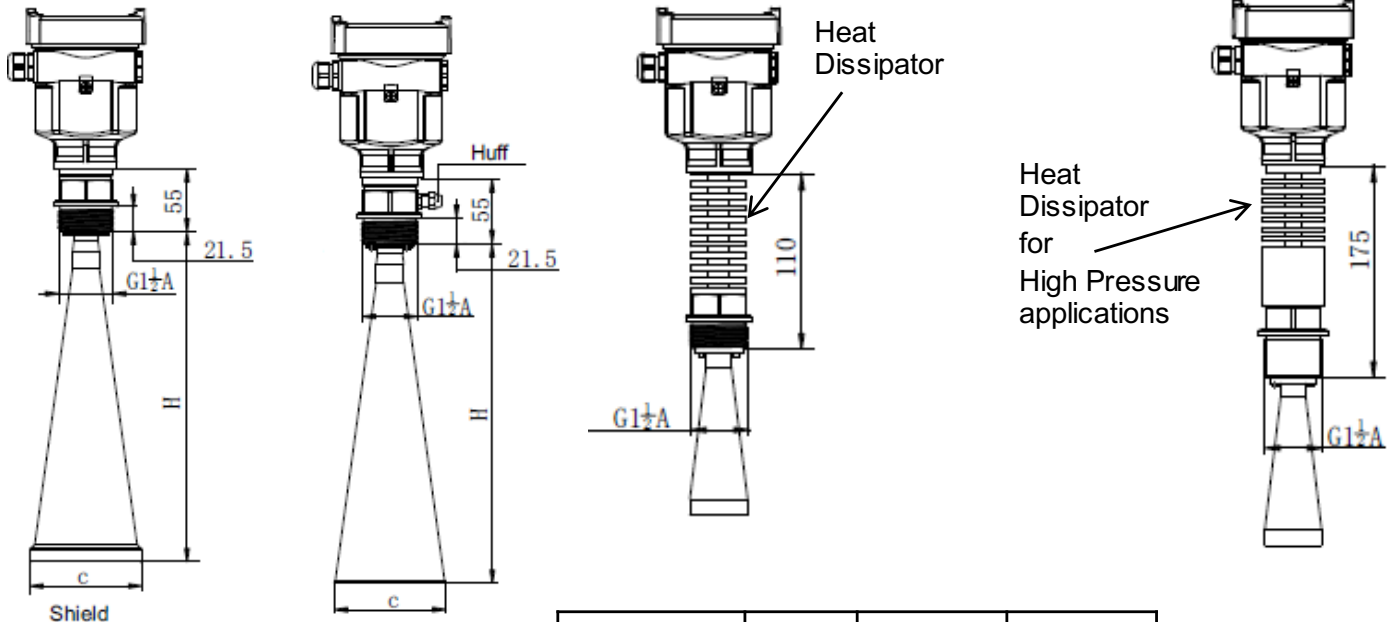
REMOTE ELECTRONICS—RU IN IP65 ENCLOSURE



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS CW58 – HORN ANTENNA

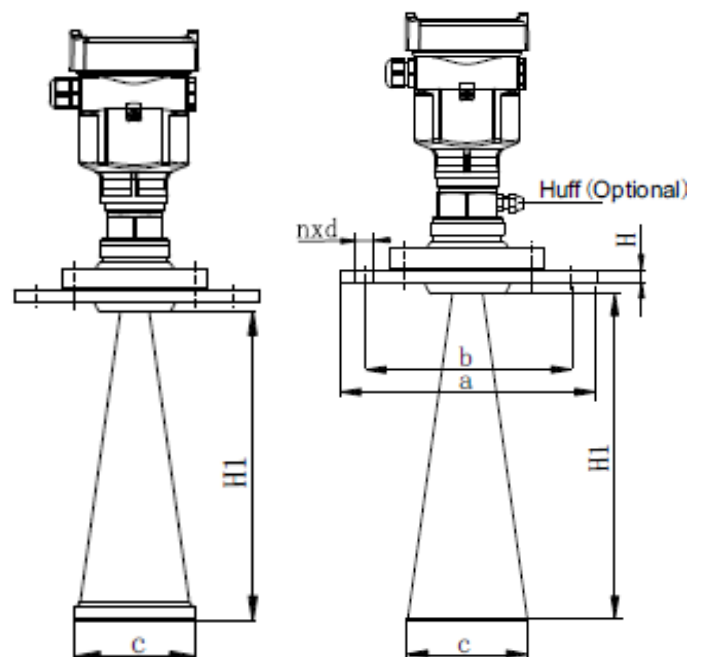
Dimensions in mm, threaded version



C	H (316L)	H (316L Shield)	H (PTFE Shield)
Ø48	140	-	-
Ø78	227	-	-
Ø98	288	300	280
Ø98 Lengthen	474	480	440
Ø123	620	625	-

Dimensions in mm, flanged version (with Gimbal)

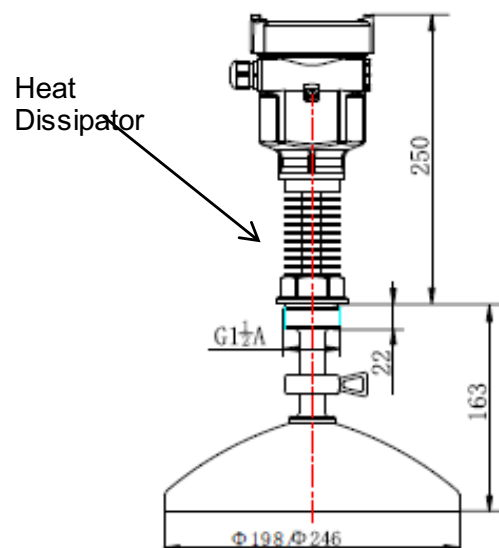
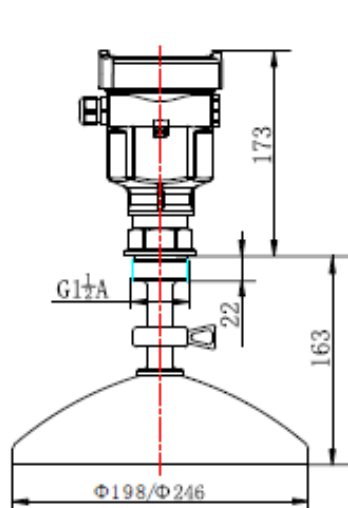
	a	b	H	d
DN100	220	180	11,5	8 X Ø 18
DN125	250	210	11,5	8 X Ø 18
DN150	285	240	11,5	8 X Ø 22
DN200	340	295	11,5	12 X Ø 22
DN250	405	355	11,5	12 X Ø 26



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

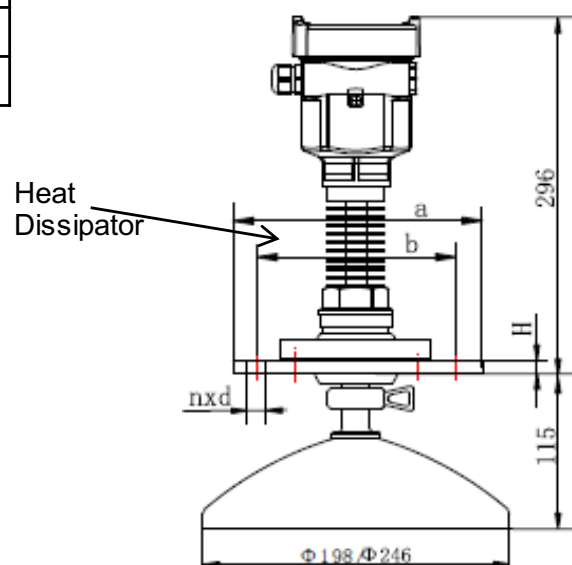
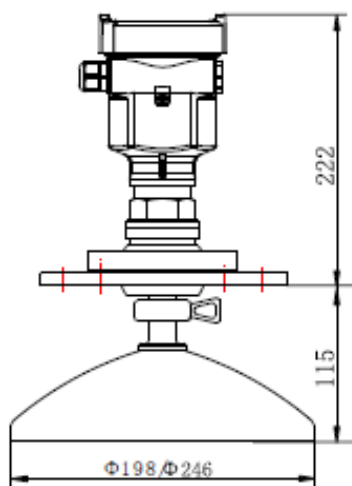
TECHNICAL DETAILS CW58 – PARABOLIC ANTENNA

Dimensions in mm, threaded version



Dimensions in mm, flanged version (with Gimbal)

	a	b	H	d
DN100	220	180	11,5	8 X Ø 18
DN125	250	210	11,5	8 X Ø 18
DN150	285	240	11,5	8 X Ø 22
DN200	340	295	11,5	12 X Ø 22
DN250	405	355	11,5	12 X Ø 26



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

ORDERING CODE CW58

P Standard

RU Remote Electronics and Sensor

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 / SS316L / PTFE Dust Shield
- N (V Type) Horn Antenna Ø 98mm (Lengthen) / SS316L / PTFE Dust Shield
- P (V Type) Horn Antenna Ø 123mm / SS316L / PTFE Dust Shield
- Q (W Type) Parabolic Antenna Ø 198mm / SS316L
- R (W Type) Parabolic Antenna Ø 246mm / SS316L
- X Special type (on request)*

Process Connections / 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
- GC (J Type) Thread G 1½ NPT / SS 316L / -60...+250°C
- GD (K Type) Thread G 1½ NPT / SS 316L / -60...+400°C / 40MPa *****
- GE (I Type) Thread G 1½ A / SS 316L / Sweeping
- GF (E Type) Thread G 1½ A / SS 316L / -60...+150°C
- GG (E1 Type) Thread G 1½ A / SS 316L / -60...+250°C
- GX Speciale type (on request)*

Flange / material Type	(L TYPE)	PTFE (L TYPE)	SS316L (M TYPE)	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 No Flange

FX Special Type (on request)*

CW SERIES WAVE COMPACT/REMOTE 26 GHZ

ORDERING CODE CW58

Seal / Working Temperature

- 2 Viton / -60...150°C
- 3 Kalrez / -60...250°C
- 4 Graphite / -60...400°C *****

Electronic

- B 4...20 mA HART (2 wires)/Intrinsic Safe Ex 'ia' (OPTIONAL)*
- C 4...20 mA / 22,8...26,4 VDC / HART 4 wires**
- D 4...20 mA / 198...242 VAC / HART 4 wires**

Housing / Protection

- A Aluminium / IP67
- B Plastic / IP66
- D Aluminium (2 chambers) / IP67/Explosion Proof Ex 'd' (OPTIONAL)*
- G Stainless Steel 316L / IP66 / IP67

Wiring

- M M20x1.5
- N ½ NPT

Display / Programming

- A YES

- *For High Temperature applications $\geq 250^{\circ}\text{C}$, HEAT DISSIPATOR is mandatory.*

* To be Specified during ordering

CW SERIES WAVE COMPACT/REMOTE 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 1/2" 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

Storage temperature: -40 ÷ 80°C

Relative umidity: <95%

Working Pressure : -1 ÷ 40 bar

Resistance to vibrations: mechanical vibrations 10m/s², 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

Resistance 2 wires version: ref. to the following diagram

Resistance 4 wires version: max 500 ohm

Time of integration: 0÷20s, programmable

Cables entry: 1x PG 13.5

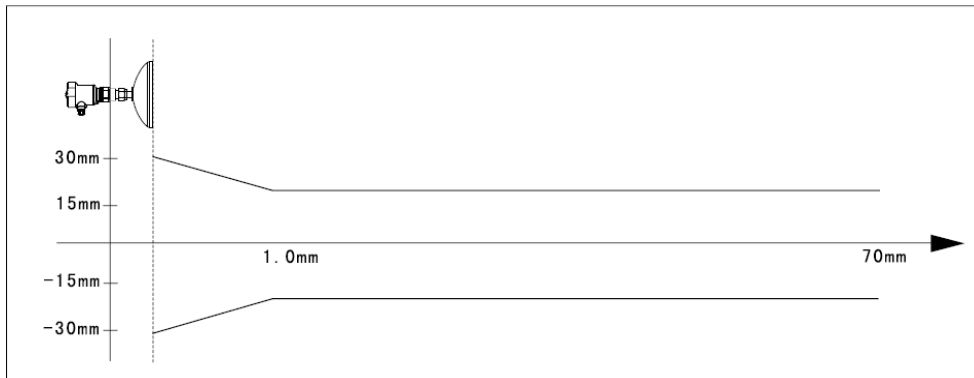
Weight: up to ~10 kg (depending on the Flange Ø)



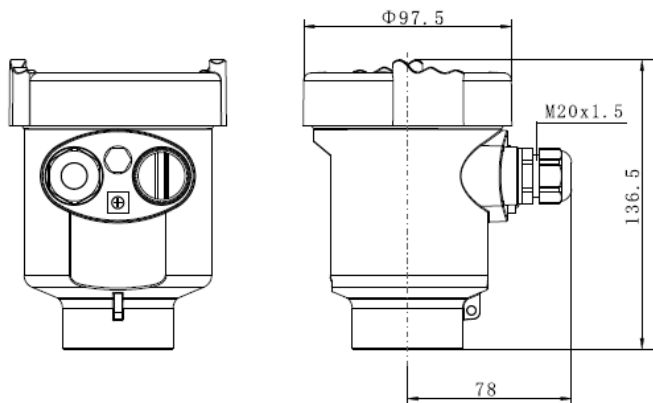
CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS CW59

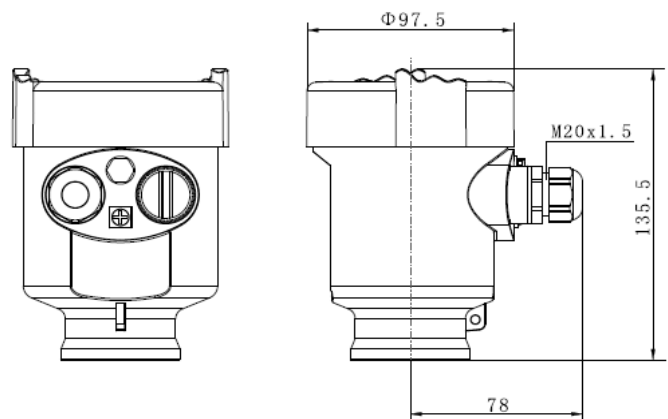
Precision



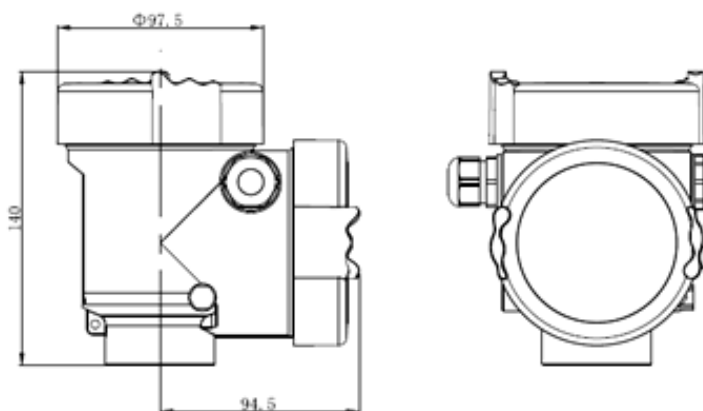
Dimensions in mm with AL/316L frame



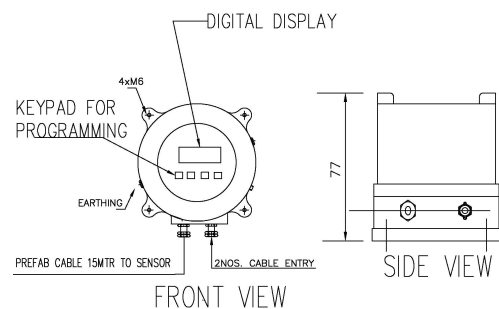
Dimensions in mm with PBT-FRL frame



Dimensions in mm with AL (2 chambers) frame



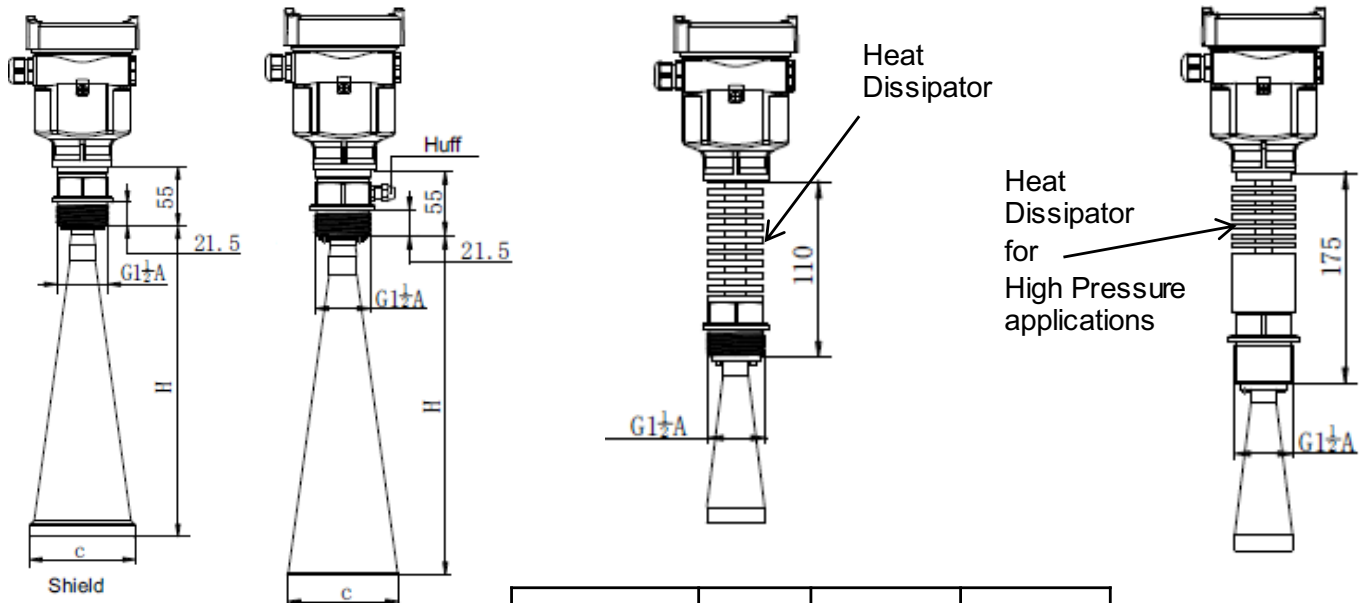
REMOTE ELECTRONICS-RU IN IP65 ENCLOSURE



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

TECHNICAL DETAILS CW59 – HORN ANTENNA

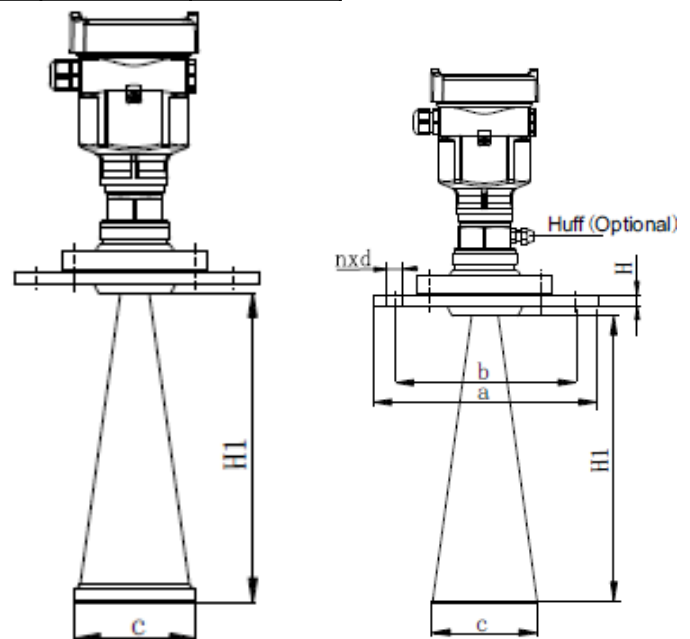
Dimensions in mm, threaded version



C	H (316L)	H (316L Shield)	H (PTFE Shield)
Ø48	140	-	-
Ø78	227	-	-
Ø98	288	300	280
Ø98 Lengthen	474	480	440
Ø123	620	625	-

Dimensions in mm, flanged version (with Gimbal)

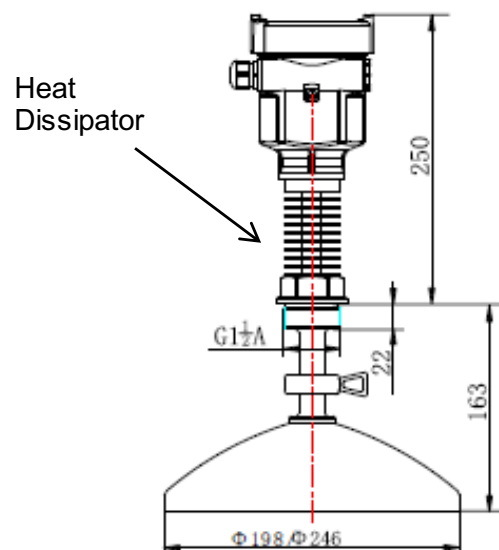
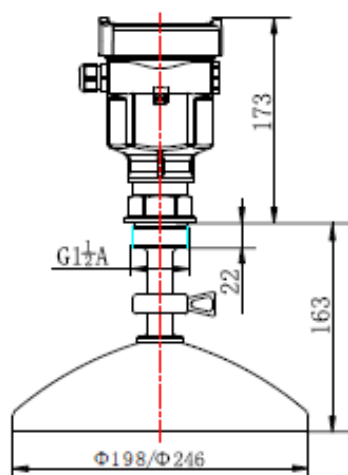
	a	b	H	d
DN100	220	180	11,5	8 X Ø 18
DN125	250	210	11,5	8 X Ø 18
DN150	285	240	11,5	8 X Ø 22
DN200	340	295	11,5	12 X Ø 22
DN250	405	355	11,5	12 X Ø 26



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

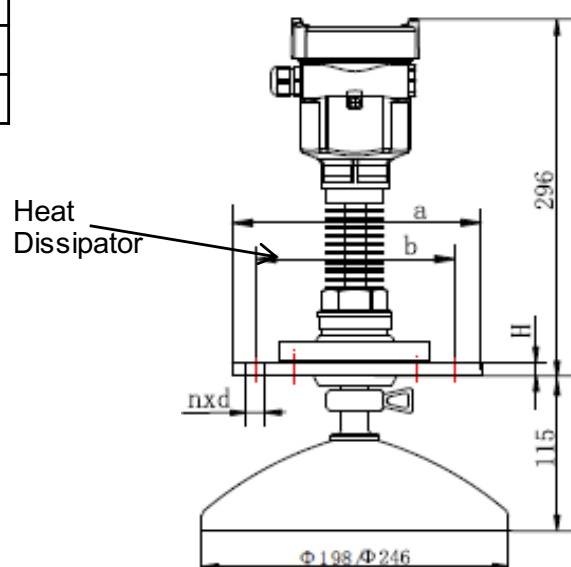
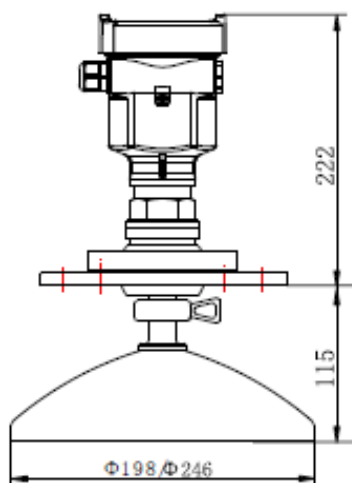
TECHNICAL DETAILS CW59 – PARABOLIC ANTENNA

Dimensions in mm, threaded version



Dimensions in mm, flanged version (with Gimbal)

	a	b	H	d
DN100	220	180	11,5	8 X Ø 18
DN125	250	210	11,5	8 X Ø 18
DN150	285	240	11,5	8 X Ø 22
DN200	340	295	11,5	12 X Ø 22
DN250	405	355	11,5	12 X Ø 26



CW SERIES WAVE COMPACT/REMOTE 26 GHZ

ORDERING CODE CW59

P Standard

RU Remote Electronics and Sensor

Type of antenna / Material

- B (T Type) Horn Antenna Ø 48mm / Stainless Steel 316L
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- I (T Type) Horn Antenna Ø 98mm (Lengthen) / Stainless Steel 316L
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- 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)*

Material Type	Flange / Material				
	PP (L TYPE)	PTFE (L TYPE)	SS316L (M TYPE)	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)*

CW SERIES WAVE COMPACT/REMOTE 26 GHZ

ORDERING CODE CW59

Seal / Working Temperature

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

Electronic

- B 4...20 mA HART 2 wires/Intrinsic Safe Ex 'ia' (OPTIONAL)*
- 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/Explosion Proof Ex 'd' (OPTIONAL)*
- G Stainless Steel 316L / IP67

Wiring

- M M20x1.5
- N ½ NPT

Display / Programming

- A YES

* To be Specified during ordering



ENVIRO CONTROLS

An ISO 9001:2008 Certified Company

About EIP

EIP was established about three decades ago, since then the company has been able to build 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 endeavor 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 the Solutions provided by EIP is the Non Contact Ultrasonic Flow Meter which solves the problem of accurate flow measurement without any invasion into the pipeline, and the Solid Flow Detector which determines any choking or jamming of the pipelines in which ash or any other Solid material is flowing.

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

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