

# ▶ OPTIWAVE 1400 C – Focus is everything



**KROHNE**

▶ measure the facts

## **OPTIWAVE 1400 C – The FMCW radar with a sharp focus on liquids**

Featuring a robust IP68 design with wetted parts made of stainless steel and polypropylene (PP), this level transmitter perfectly fits the requirements of the water and wastewater industry.

Just like all previous non-contact radar transmitters from KROHNE, the new OPTIWAVE 1400 C uses FMCW radar technology. Its proven PP Drop antenna, with the smallest beam angle on the market, guarantees a sharp focus on liquids, unsusceptible to condensation, turbulent surfaces or foam.

Competitive in price, easy to install and operate, the OPTIWAVE 1400 C ensures continuous level measurement without maintenance over a long period of time.



**3-year  
warranty**

OPTIWAVE 1400 C

## Precision that lasts

If you are looking for a consistently precise, versatile, and reliable liquid level measurement solution that you can install and never worry about again, the OPTIWAVE 1400 C is your level transmitter.

## Highlights

- FMCW technology for greater resolution, just like the new 80 GHz generation
- Proven polypropylene (PP) Drop antenna, insensitive to condensation or deposits
- Narrow beam angle for a sharp focus on the medium
- Robust stainless steel design (IP68 NEMA 4X/6)
- Maintenance-free design
- Simple, safe and secure installation and operation

## Applications

Ideal for liquids in the water and wastewater industry, or other fields with liquid storage applications:

- Extraction, transport, storage and distribution of water from springs, rivers, lakes or the sea
- Rainwater basins
- Open-channel flow measurement and floodwater alarms
- Water, wastewater, sludge or other liquids in storage applications
- Wastewater pumping stations
- Liquid level of plastic tanks (e.g. IBC)

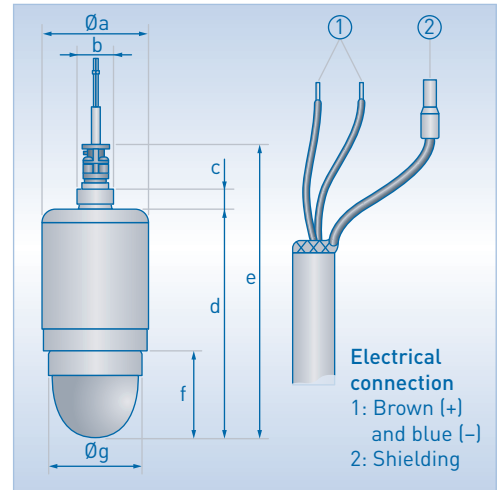
Measuring range	0...20 m/0...66 ft
Frequency range	K-band/24 GHz (LPR)
Dielectric constant $\epsilon_r$	$\geq 2$
Accuracy	$\pm 2$ mm/ $\pm 0.8$ "
Process temperature	-40...+80°C/-40...+176°F
Process pressure	-1...3 barg/-14.5...43.5 psig
Top housing connection	Thread: G 1
Process connection (antenna)	Thread: G 3 Flange: low-pressure flange disc (316L) drilled with holes according to DN100...200 PN 2.5...40/4...8" 150 lb
Ingress protection	IP68/NEMA 4X/6
Antenna G 3	Polypropylene (PP) Drop DN100/ 4"
Beam angle	8°
Output	4...20 mA HART® 7
Supply voltage	12...30 V DC
Wetted parts	Housing: stainless steel Antenna: polypropylene (PP) Connection cable: polyurethane (PUR) Gasket: EPDM

## Contact

KROHNE Messtechnik GmbH  
Ludwig-Krohne-Str. 5  
47058 Duisburg  
Germany

Tel.: +49 203 301 0  
Fax: +49 203 301 103 89  
info@krohne.com

Please check [www.krohne.com](http://www.krohne.com)  
for your local service contact



## Dimensions

Drop antenna with threaded connections:

Antenna	Dimensions (mm/inches)						
	Øa	b	c	d	e	f	Øg
DN100/4"	101.6	G 1	20	220.7	282.7	83.5	G 3
	4.00	G 1	0.79	8.69	11.13	3.29	G 3

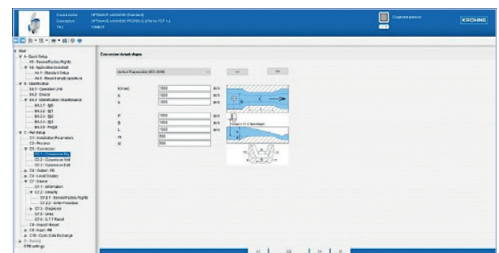
## Measuring principle

The radar principle used is called FMCW (frequency modulated continuous wave).

An FMCW radar continuously emits a linear, frequency-modulated signal with a constant amplitude (sweep). The distance to the product is measured indirectly by using the frequency difference between the emitted and the received waves.

## Commissioning

Use PACTware™ and the respective DTM to commission the device on-site.



Documentation and more:

[krohne.com/optiwave](http://krohne.com/optiwave)



[www.krohne.com](http://www.krohne.com)