

CPC-AR-54



- non-contact antenna radar level meter
- measuring range up to 8 m or up to 20 m
- variable installation; connection via the bottom or top thread
- intelligent numerical signal processing
- with elimination of false reflections
- connection via two-core cable
- standard cable gland or gland for protective hose
- current output (4 ... 20 mA) with HART® protocol
- measurement independent of temperature and pressure of the atmosphere above the surface
- measurement also possible in aggressive vapors
- high degree of protection IP 68



Non-contact radar level meters **CPC-AR-54** with an antenna are suitable for continuous level measurement at medium and longer distances of liquid or pasty substances. They can be used both in various closed tanks, containers, in semi-open sumps, and in open space. Their use is suitable where their advantages are fully realized:

1. non-contact measurement
2. independence of measurement on temperature and atmospheric pressure above the surface
3. possibility of measurement even in vacuum
4. possibility of measurement even in aggressive vapors
5. measurement is independent of medium parameters.

The **CPC-AR-54** radar level meter operates on the FMCW (frequency modulated continuous wave) principle with a frequency of 25 GHz (K-Band).

The level meter is equipped with a compact covered funnel antenna. The antenna cover prevents dirt, vapors and gases from penetrating the antenna. The level meter is two-wire with a current output of 4...20 mA with HART® communication. Measuring range 0.3...8 m or 0.3...20 m.



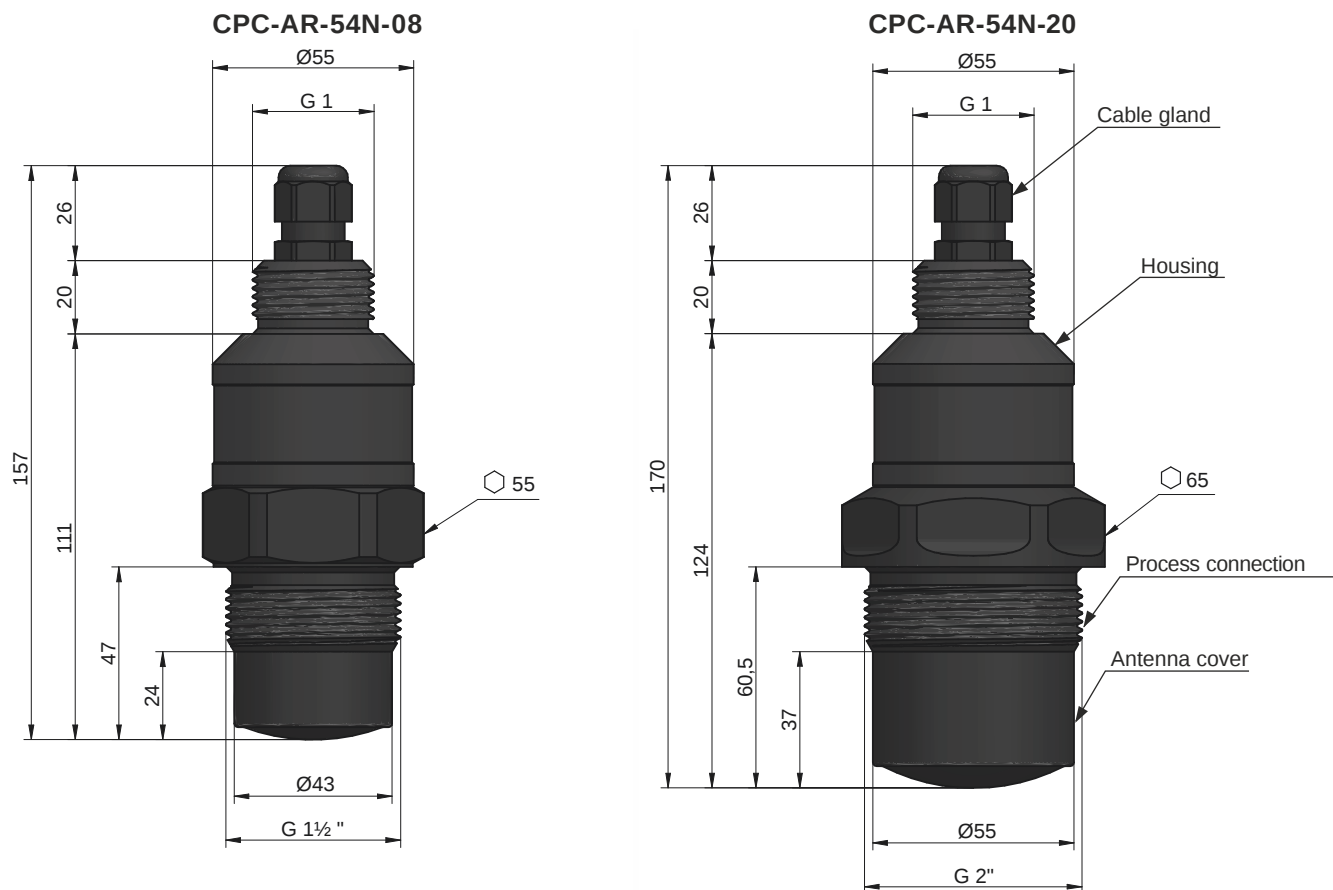
VARIANTS OF LEVEL METERS

CPC-AR-54N-08 Measuring range from 0.3 m do 8 m, process connection via G 1 1/2" pipe thread

CPC-AR-54N-20 Measuring range from 0.3 m do 20 m, process connection via G 2" pipe thread



DIMENSION DRAWINGS

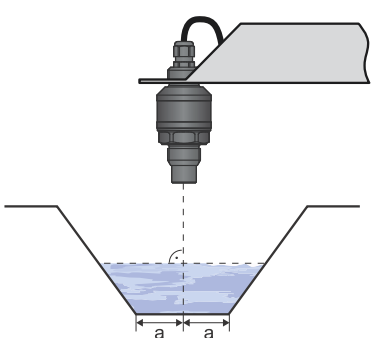


Technical specifications		
working environment		non-explosion environment
supply voltage		18 ... 34 V DC
output type		current 4 ... 20 mA with HART® communication (limit values 3,9 - 20,5 mA)
current consumption		4 ... 20 mA / max. 22 mA
basic measurement accuracy		3 mm (distance 1 m ... 8 m or 1 m ... 20 m)
current output error		max. 80 μ A
resolution		0,1 mm
maximum range		8 m, 20 m
dead zone		30 cm
adjustable measuring range (SPAN)		min. 200 mm
function principle		FMCW
operating temperature range		-30 ... +70 °C
maximum operating overpressure		2 bar
measuring frequency		25 GHz (K-Band)
measurement sensitivity		3 levels
damping		1 ... 99 sec
status signaling (echo dropout)		3,75 mA; 4 mA; 20 mA; 22 mA; NO CHANGE
time of the first measurement from the start of the power supply		20 sec
maximum load resistance at	U = 24 V	R = 270 Ω *
	U = 22 V	R = 180 Ω
	U = 20 V	R = 90 Ω
protection class		IP 68
cable		PVC 2 x 0,75 mm ²

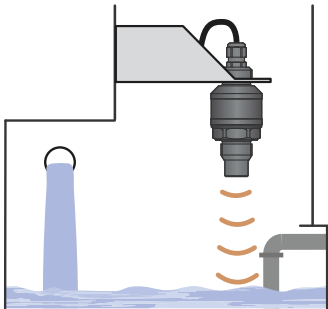
* 250 Ω HART resistor included

Used materials	
Process connection	plastic PP
Housing	plastic PP + GF30
Cable gland	plastic PA

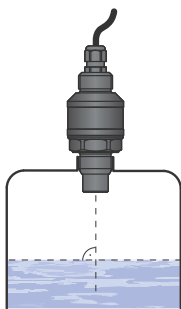
INSTALLATION



Installation in the trough



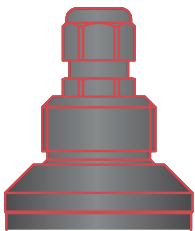
Recommended installation of the CPC-U-54 level meter in the tank via the upper thread



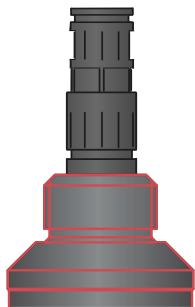
Recommended installation of the CPC-U-54 level meter in the tank using the bottom thread

ELECTRICAL CONNECTION

Cable gland M16 x 1,5



Cable gland for protective hose



The level gauge is connected to the control (evaluation) device by a hard-wired cable.

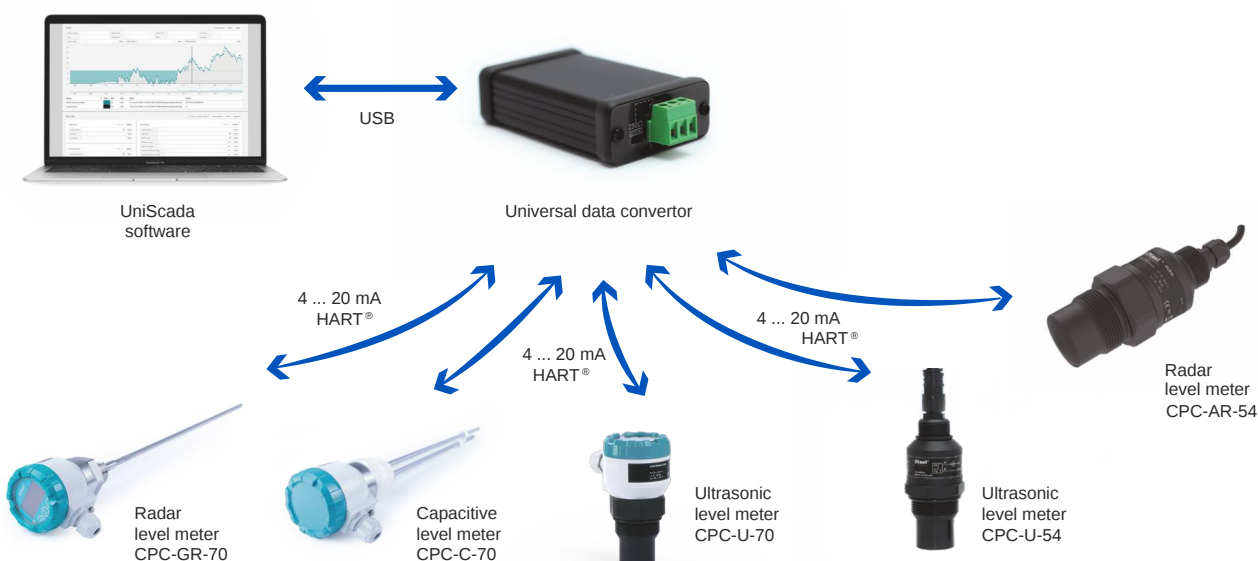
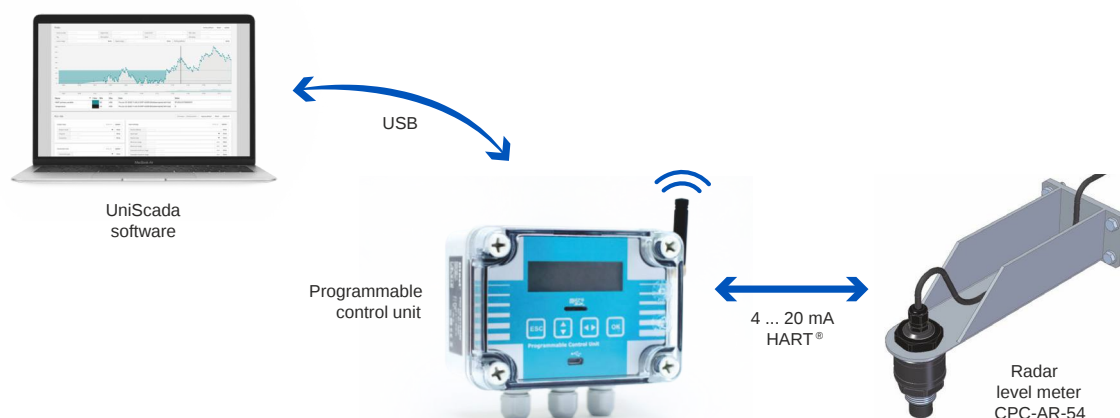


Connection diagram of the level gauge with current output CPC-AR-54

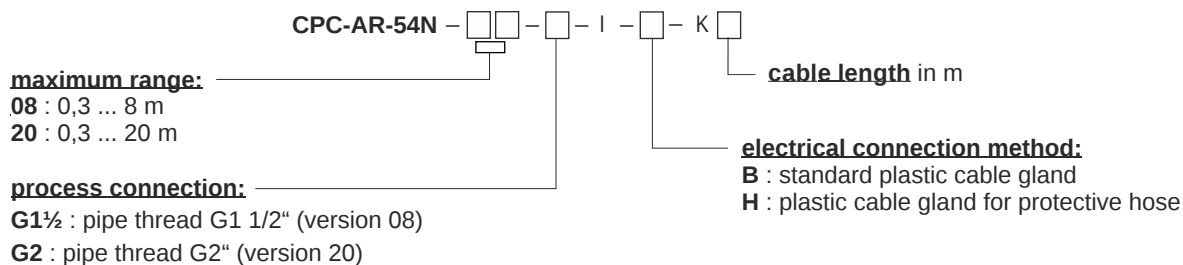
* When using HART® communication



CONNECTION SYSTEM



ORDER CODE



CORRECT SPECIFICATION EXAMPLES

CPC-AR-54N-20-G2-I-B-K5

(20) maximum range 0,3 ... 20 m; (G2) process connection G2" pipe thread; (I) current output (4 ... 20 mA); (B) standard plastic cable gland; (K5) cable length 5 m



ACCESSORIES

Recommended evaluation and power supply unit power supply of sensors, converting their status to power contact and remote parameterization	at extra cost		
extendable bracket	at extra cost		
2x EPDM gasket (o-ring)	included in the price	Ø30 x 3,5 mm Ø44 x 4 (pro G1½) Ø54 x 4 (pro G2)	
converter from USB to HART®	at extra cost		
plastic fixing nuts	at extra cost	PUM-G1 PUM-G1½ PUM-G2	
stainless steel or steel sleeves	at extra cost	G1 G1½ G2	
protective hose (for version with „H“ type outlet)	at extra cost		

