

## ULTRASONIC LEVEL METER

For continuous non-contact water level measurement in outdoor applications - rivers, canals, sumps, liquid and slurry, pastes and bulk materials



**HART**  
COMMUNICATION PROTOCOL



- Remote installation and communication via HART® protocol
- Variable installation thanks to the possibility of connection via lower or upper thread
- Intelligent numerical signal processing with the elimination of false reflections
- Choice of connection using a standard cable gland or a gland for protective hoses
- High degree of protection IP68
- With the help of a horn adapter it is possible to increase the reception of the reflected echo and to measure problematic media (foaming levels, loose materials, etc.)

### Technical specifications

Measuring range <sup>1)</sup>	ULM-54N-02	0,15 ... 2 m
	ULM-54N-06	0,25 ... 6 m
	ULM-54N-10	0,4 ... 10 m
Supply voltage	ULM-54N-__	18 ... 36 V DC
Output	ULM-54N-__-I	4 ... 20 mA, HART®
Accuracy (within the total range)		0,15 %
Temperature error		max. 0,04 % / K
Ambient temperature range	ULM-54N-02	-30 ... +70 °C
	ULM-54N-06	-30 ... +70 °C
	ULM-54N-10	-30 ... +60 °C
Max. operation overpressure (on transmission surface)		0,1 MPa
Protection class		IP68
Mechanical connection	ULM-54N-02	screwing with thread G 1"
	ULM-54N-06	(upper or lower threads) screwing with thread G 1½"
	ULM-54N-10	and upper thread G 1" screwing with thread G 2¼" and upper thread G 1"
Recommended cable	ULM-54N-__-I	PVC 2 x 0,75 mm <sup>2</sup>
Material of housing		All-plastic PP design with PVDF transmitter

1) In case the level of bulk-solid materials is measured, the measurement range is reduced.

## BASIC FEATURES AND VARIANTS

For continuous non-contact measurement of water level in outdoor applications (rivers, canals, cisterns), liquid and slurry, pastes and bulk materials in open cisterns, containers, etc.

VARIANTS	
name	measuring range
ULM-54N-02	0,15 m - 2 m
ULM-54N-06	0,25 m - 6 m
ULM-54N-10	0,4 m - 10 m

# DIMENSIONS

**ULM-54N\_02**

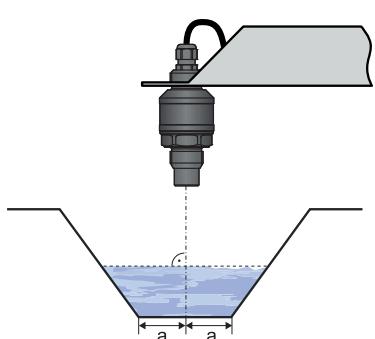
**ULM-54N\_06**

**ULM-54N\_10**

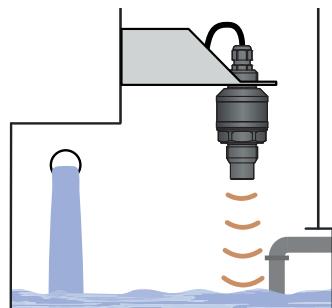
The drawings show the following dimensions:

- ULM-54N\_02:** Total height is 143 mm. The top section has a height of 26 mm, a G1 thread, and an o-ring. The middle section has a height of 20 mm and a diameter of Ø 46 mm. The bottom section has a height of 39 mm, a G1 thread, and a diameter of Ø 55 mm. A central bore has a diameter of Ø 25 mm.
- ULM-54N\_06:** Total height is 154 mm. The top section has a height of 26 mm, a G1 thread, and an o-ring. The middle section has a height of 20 mm and a diameter of Ø 55 mm. The bottom section has a height of 53 mm, a G1 1/2 thread, and a diameter of Ø 38 mm.
- ULM-54N\_10:** Total height is 175 mm. The top section has a height of 26 mm, a G1 thread, and an o-ring. The middle section has a height of 20 mm and a diameter of Ø 65 mm. The bottom section has a height of 65 mm, a G2 1/4 thread, and a diameter of Ø 56 mm.

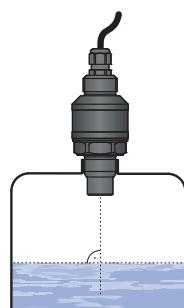
# USE



Installation in the trough

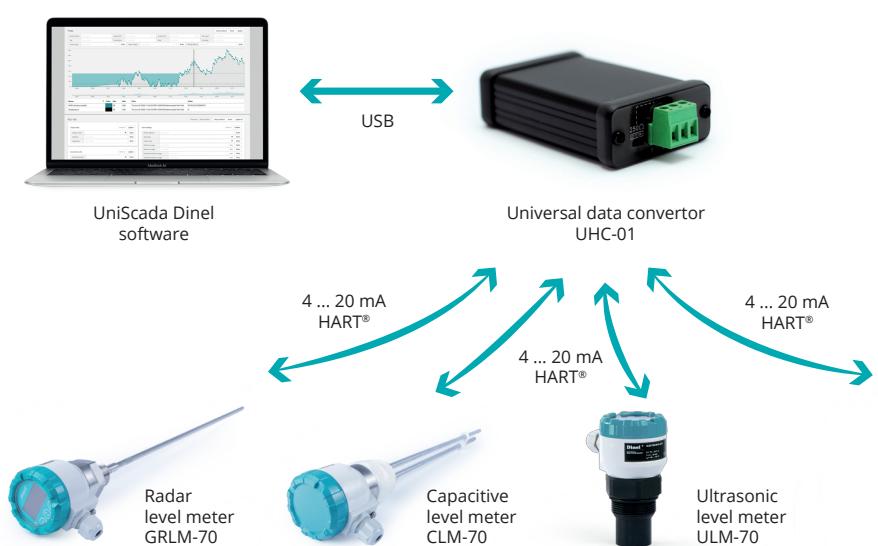
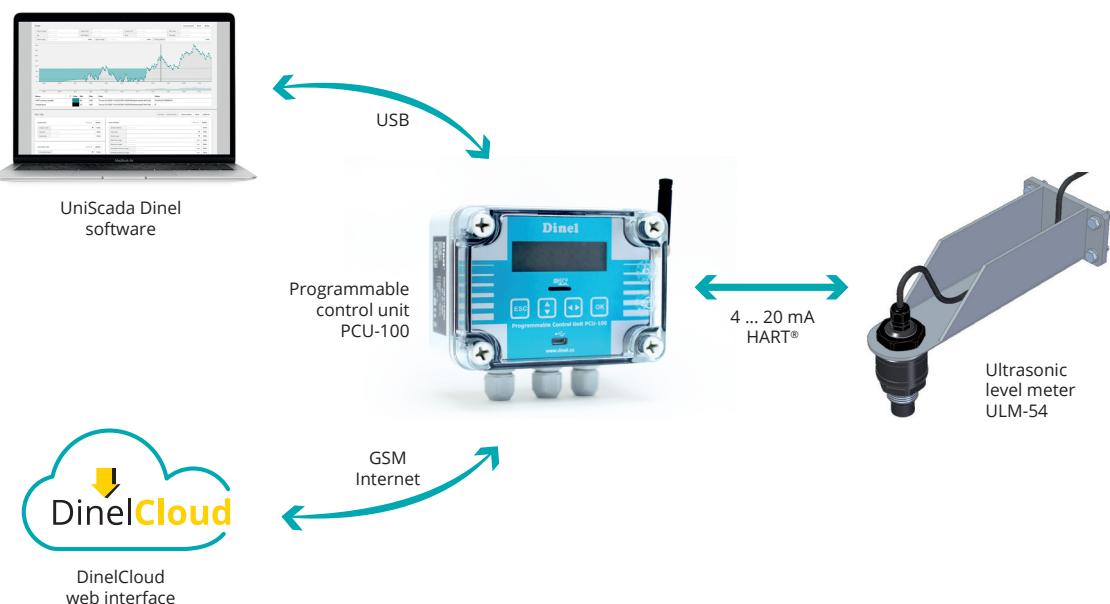


Recommended installation of the ULM-54 level meter in the tank via the upper thread



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

## CONNECTION SYSTEM



# ORDER CODE

ULM-54

## PERFORMANCE

N non-explosive areas

## MAXIMUM RANGE

- 02 0,15 ... 2 m
- 06 0,25 ... 6 m
- 10 0,4 ... 10 m

## PROCESS CONNECTION

G pipe thread G

## TYP VÝSTUPU

I proudový

## TYPE OF ELECTRICAL CONNECTION

- B standard plastic cable gland
- H plastic cable gland for protective hose

## CABLE

K cable length in m

ULM-54 N - 06 - G - I - B - K5

## EXAMPLE OF CODING

# ACCESSORIES

2x seals (o-ring)	included in the price		
Universal USB to HART® converter	at extra cost	UHC-01	
Horn adapter	at extra cost	ST-G 1 ST-G 1½ ST-G 2¼	
Plastic fixing nuts	at extra cost	PUM-G 1 PUM-G 1½ PUM-G 2¼	
Weld flanges stainless steel (NN) or carbon steel (ON)	at extra cost	NN-G1 ON-G1 NN-G1½ ON-G1½	
protecting hose (for H cable gland)	at extra cost		

Dinel, s.r.o.

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