



UTS™

Ultrasonic Level Switch



Product data sheet



Main features:

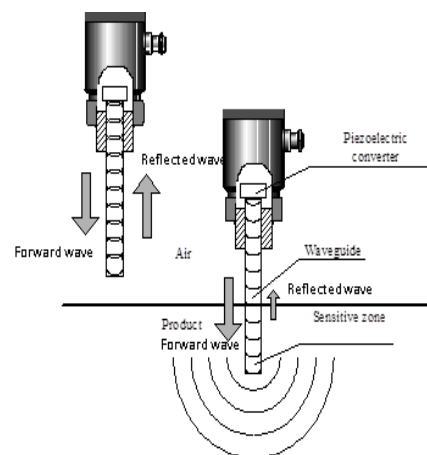
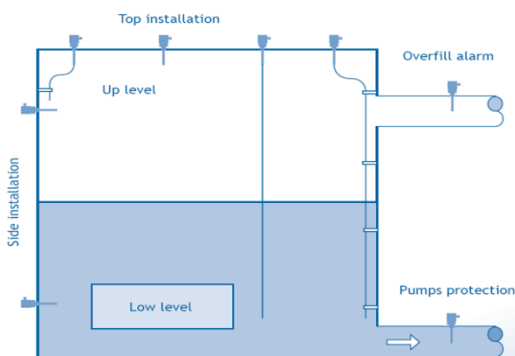
- Temperature range from -200°C to +450°C
- Any type of liquid
- Only a steel rod inside the tank (electronics and connections outside)
- No moving parts
- No maintenance required
- No sensitivity to foam

General description

The UTS™ has an extended operating temperature range of -200°C to +450°C and is designed for level detection in cargo holds, wells and service tanks in sea and river ships, oil tankers, chemical tankers, gas carriers and offshore drilling platforms.

The operating principle of the UTS™ is based on a breakthrough patented acoustic wave technology, providing outstanding results in extreme operating temperature. The accuracy of measurement is ensured regardless of the shape of the tank, type of liquid or liquid temperature.

The UTS™ is installed outside the tank/pipe with only a metal rod inside the tank/pipe. The UTS™ can be easily installed in vertical, horizontal or any inclined position and is tested for operation in a wide range of media. Can be installed indoors, as well as outdoors, including explosive environments and harsh arctic conditions. The UTS™ is characterized by a high resistance to sticky products, high robustness and shock resistance and increased reliability under dynamic load and vibrations due to a reinforced rod and electronic unit of new generation.





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Technical specifications

Output signal:

- a) Current: 7mA/14mA
- b) Dry contact: NO/NC, current limit 200mA, max. switching voltage 200V

Repetition of actuation level:

- Vertical installation: 3 mm
- Horizontal installation: 1 mm

Power supply voltage:

18 – 30 V DC

Power consumption:

less than 0,5 W

Ambient operating temperature:

-40°C to +85°C, (-55°C to +85°C),
for IS -40°C to +57°C

Product temperature:

-200°C to +450°C

Length of rod:

Standard length 115 mm (minimum)
Other length on request

Relative ambient humidity:

up to 100% at 50°C

Working pressure:

Std. up to 40 bar
(special version up to 400 bar)

Response time:

1 sec. subject to actual programming

Protection rate:

IP67, IP68

MTBF:

50000 hrs

Housing type:

Stainless steel AISI 316L

Wetted parts:

Stainless steel AISI 316L (hastelloy on request)

Process connection:

- a) Thread: From G1, 1NPT, M27x 1,5
- b) Flange: From DN 25
Others on request

Ex protection:

Ex ia IIC T5 (T6)

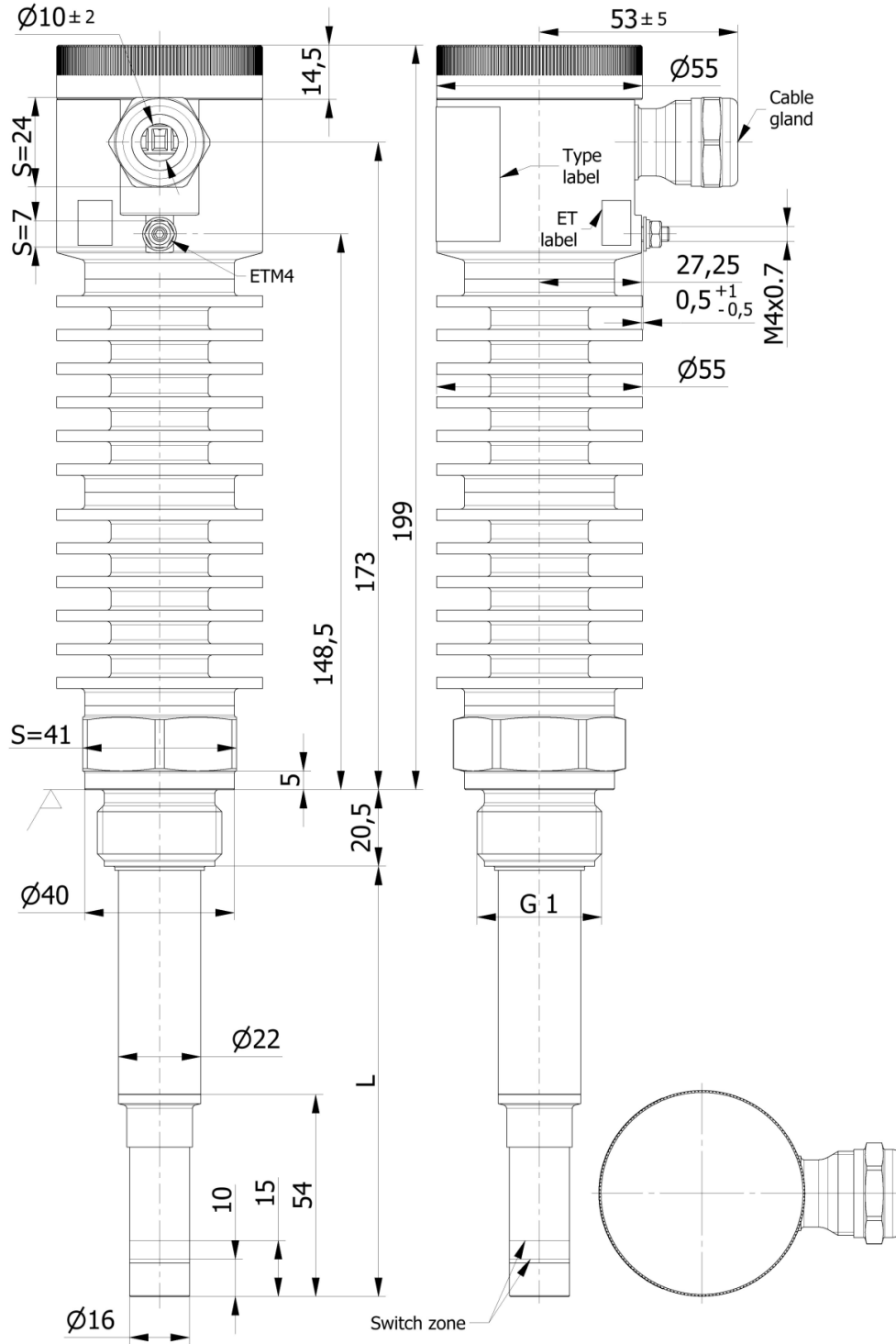


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Drawings



(Example/illustrations only)



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Order codes

UTS - [] [] - [] [] [] [] - [] [] [] - [] [] [] - [] [] [] - [] [] [] - [] [] [] - ([]) - ([])

Type of housing

Protection level IP67	67
Protection level IP68	68

Length of the switch

Standard length 115mm	0 1 1 5
Length on request (specify length in mm)	X X X X

Type and size of connection

Metric cylindrical thread M27x1.5	M 2 7
Pipe cylindrical thread 1 inch	0 1 G
Flange DN 25 PN10-40	F 2 5
On request	x x x

Output signal

Current 14 mA ("dry")/ 7 mA ("wet")	C 1
Current 7 mA ("dry")/ 14 mA ("wet")	C 2
Dry contact: open ("dry")/closed ("wet")	R 1
Dry contact: closed ("dry")/open ("wet")	R 2

Cable input

PG13	P 1 3
M24x1.5 inner thread	M 2 4
M20x1.5 inner thread	M 2 0
Special for IP68, specify cable length in meters	x x x

Temperature range of controlled liquid

Standard (-55°C - +100°C)	L
High temperature 1 (-55°C - +200°C)	M
High temperature 2 (-55°C - +325°C)	N
High temperature 3 (-55°C - +450°C)	H
Low temperature (-200°C - + 100°C)	C

Explosion protection

Standard type	N
Spark-proof type Ex ia IICT5(6)	I

Test button - if not needed, this section is left out

Yes	1
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Additional certification - if not needed, this section is left out

China Classification Society (CCS)	C
Det Norske Veritas (DNV)	D
Germanischer Lloyd (GL)	G
Lloyd's Register (LR)	L
Bureau Veritas (BV)	B
Russian Maritime Register of Shipping (RMRS)	M
Russian River Register (RRR)	R
American Bureau of Shipping (ABS)	U
other	X