

Sonicont® USN

Ultrasonic filling level transmitter, non-contact measurement of filling levels in liquids, pastes and coarse bulk materials, level measurement in liquids up to 2 / 5 / 8 m and in bulk materials up to 1 / 2 / 3,5 m

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Technical data

solid materials
liquids

non-contact
measurement

up to
8m
measuring
range

0/4...20mA
4x PNP

data
logger

Supply voltage:	Setting output 0/4...20 mA: 9...30 VDC, reverse polarity protected Setting output 0...10 V: 14...30 VDC, reverse polarity protected
Supply current:	≤ 50mA up to ≤ 100mA (depending on output, bluetooth ON/Off, US)
Start-up time:	≤ 1s
Operating range:	Analogue output – current 0...20mA IOut: 0...20,5mA, max. 22mA Analogue output – current 4...20mA IOU: 3,8...20,5mA, min. 3,6mA, max. 22mA Analogue output – voltage 0...10V UOut: 0 ... 10,5 V, max. 11 V
Switch output PNP S1 / S2 / S3 / S4	
Function:	PNP switch to +L
Output current:	0... ≤ 200mA current limited, short circuit protected
Measuring accuracy	
Characteristic deviation:	≤ ±2mm or ±0,2% of set measuring range
Long term drift:	≤ ± 0,1% FS / year not cumulative
Temperature deviation	≤ ±0,006% FS / K
Materials	
Sensor	PVDF
Process connection	Steel 1.4404/316L / Steel 1.4571/316Ti
Gaskets	EPDM – ethylene-propylene-dienmonomere
Terminal enclosure	CrNi-steel
Control panel surface	PES
Electrical connection part:	Device plug PUR
Pressure compensation element:	Acrylic copolymer
Gaskets:	FPM – fluorelastomere (e.g. Viton®)
Environmental conditions	
Environmental temperature:	- 20°C...+70°C
Process temperature:	-40...+85°C
Process pressure:	-0,3...2 bar
Protection:	IP65/IP67 EN/IEC 60529



Terminal enclosure

Type 5 – Thread ISO 228-1 – G1”B /
Measuring range type O2 – 2m

Type D – Thread ISO 228-1 – G2”B /
Measuring range type O8 – 8m

Type 7 – Thread ISO 228-1 – G1½”B /
Measuring range type O5 – 5m

Application

The device is an electronic level transmitter / level switch for monitoring, control as well as continuous measurement of filling levels in liquids, pastes and coarse bulk materials. Additional application fields are volume or flow measurement.

The software was optimized and extended by a new algorithm. The Sonicont is a better algorithm for the detection of ultrasonic signals, so that interference signals e.g. agitators etc. can be recognized even better and thus a safe operation can be ensured.

Due to the device construction with measuring ranges of 2m / 5m / 8m, process temperatures from -40°C to +85°C and process materials PVDF / CrNi-steel / EPDM as well as the availability of extensive equipment and functionality predefined vessel types for fast commissioning, predefined linearization curves for volume and flow measurement, integrated error signal suppression for adaption the installation situation, integrated compensation of the process temperature, limit value function for two-point control, pump control function, impulse output function for quantity counter and error indication function for error monitoring the device is especially suitable for the use for level and volume measurement and flow measurement at open channels and measuring weirs for water and waste water sector, process industry, environmental technology, storage tanks, storage bunkers, silos. The device is suitable for demanding measuring requirements.

Due to its high accuracy and the high flexibility of configuration, the device can be suited a wide variety of applications.

The robust design and the high-quality workmanship turns the device into a very high quality product, which even the most adverse environmental conditions cannot affect, whether low temperatures when used outdoors, high shock and vibration or aggressive media.

A captive laser marking of the type label ensures the identifiability throughout the entire lifetime of the device. Obviously is the optional marking of a measurement point designation resp. TAG, a customer label or of a neutral type label, of course also per laser marking.

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Basic price	726,00 €	Price group A
Ausführung		
4S Standard	0,00 €	
Sensor (process wetted)		
P Piezo, PVDF	0,00 €	
Approval		
S Standard	0,00 €	
Process connection		
5 Thread ISO 228-1 - G1"B (only at measuring range 2m)	0,00 €	
7 Thread ISO 228-1 - G1½"B (only at measuring range 5m)	0,00 €	
D Thread ISO 228-1 - G2"B (only at measuring range 8m)	0,00 €	
Material process seal (process wetted)		
3 EPDM	0,00 €	
Material process connection (process wetted)		
V CrNi-Stahl 316L/316Ti	0,00 €	
Material terminal enclosure		
C CrNi-Stahl N41, 304	0,00 €	
Measuring range		
02 2m	0,00 €	
05 5m	51,00 €	
08 8m	84,00 €	
Electronic - Output		
M Current 0/4...20mA / voltage 0...10V, 3-wire	256,00 €	
K Current 0/4...20mA / voltage 0...10V, 2x switch PNP, 3-...5-wire	329,00 €	
R Current 0/4...20mA / voltage 0...10V, 4x switch PNP, 3-...7-wire	402,00 €	
Electronic - Function		
0 without	0,00 €	
1 Bluetooth® 2.1	136,00 €	
2 Data logger with time stamp, backup battery	60,00 €	
3 Data logger with time stamp, backup battery / Bluetooth® 2.1	198,00 €	
Process temperature		
0 -40°C...+85°C	0,00 €	
Electrical connection		
S Plug M12x1 - A	0,00 €	
+ Additional Options (optional)		
SF LABS-free, silicone-free / paint compatible version	109,00 €	
ML Measurement point designation / TAG - Laser marking	24,50 €	
KF Configuration/ Preset	66,00 €	

Order code

Sonicont® USN 4S P S 3 V C O O O S

Equipment

Order information
 LKZ0405PUR-AS
 LKZ0410PUR-AS
 LKZ0505PUR-AS
 LKZ0510PUR-AS
 LKZ0805PUR-AS
 BKZ0412-VA
 BKZ0512-VA

Model
 Connection cable 5 m, 4-pole, shielded

27,50 €
 34,00 €
 32,00 €
 42,00 €
 55,00 €
 22,50 €
 27,50 €

PGE