microsonic



extract from our online catalogue:

hps+130/DD/TC/E/G1

current to: 2026-11-04

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hps+

hps+ in safety gear - When you need chemically resistant, pressure-resistant sensors.

Highlights

- Optionally used in normal pressure or overpressure
- PTFE membrane › for protection against aggressive media
- Stainless-steel or optional PVDF housing for hps+340 › for use in the food industry
- Sealed against the housing with an O-ring made from FFKM › for the highest possible chemical resistance
- Digital display with direct measured value output in mm/cm or %
- Numeric configuration of the sensor using digital display
- UL Listed › to Canadian and US safety standards

Basics

- 2 switching outputs in pnp variant
- Analogue output plus 1 pnp switching output
- 4 detection ranges with a measurement range of 30 mm to 8 m
- microsonic Teach-in using T1 or T2 buttons
- 0.025 mm to 2.4 mm resolution
- Temperature compensation
- 9–30 V operating voltage
- LinkControl › for configuration of sensors from a PC

For fill level measurements of aggressive media and in overpressure

the ultrasonic transducers of the new hps+ sensors are now fitted out - as standard - with a PTFE film. It is sealed with a FFKM O-ring against the housing made of 1.4571 stainless steel or PVDF. This ensures a high degree of resistance to aggressive media.



Fill level measurement in tanks



hps+340 in highly resistant PVDF housing - PTFE protective film sealed with an O-ring made from FFKM against the housing

The hps+ sensors can be used for fill level measurement under normal pressure or in tanks and containers with an overpressure of up to 6 bar. Its special software filters also allow its use in containers filled from above or that have a stirring system. Pressure-tight installation in a tank is undertaken by means of a 1“ threaded flange or a 2“ one in the case of hps+340.

Chemical resistance

and seal tightness were tested through being stored over cellulose thinner and 1,000,000 alternating pressure stresses. Cellulose thinner is extremely corrosive and has a high rate of penetration.

Two different output stages

are available for four detection ranges:



2 switching outputs in pnp switching technology



1 analogue output with an additional pnp switching output

Sensors with switching output have three operating modes:

- Single switching point
- Two-way reflective barrier
- Window mode

Two three-colour LEDs

always show the current state of the switching outputs or the analogue output.

With TouchControl

all configuration can be done right at the sensor. The easily legible three-digit LED display continually shows the current distance value and automatically switches between millimetre and centimetre displays.

Setting a switching or analogue output

can optionally be carried out by numeric input of the desired distance values, or using a Teach-in procedure. This permits the user to select the configuration method preferred. The hps+ sensors support synchronisation and multiplex operation and have extensive parameterisation options via LinkControl. (Further information on how to set up hps+ sensors can be found at mic+ sensors.)

LinkControl

consists of the LinkControl-Adapter LCA-2 and the LinkControl-Software and facilitates the configuration of the hps+ sensors via a PC or laptop with any conventional conventional Windows® operating system.



Sensor connected to the PC via LCA-2 for programming

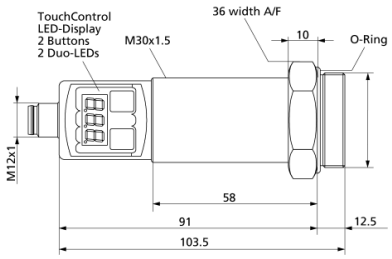
You have special requirements?

Nothing as simple as that.

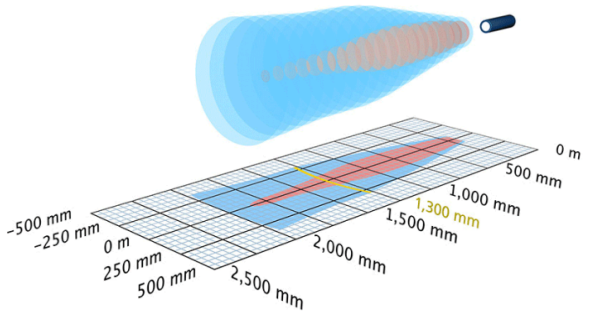
With us, you can easily find an individual solution. Let us talk about your application: +49 231 97 51 51-82.

hps+130/DD/TC/E/G1

scale drawing



detection zone



2 x pnp

design	process connection G1
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	pressure-resistant up to 6 bar overpressure high chemical resistance stainless steel version display process connection G1 UL Listed

Ultrasonic-Specific

means of measurement	echo propagation time measurement
transducer frequency	180 kHz
blind zone	200 mm
operating range	1.300 mm
resolution	0.18 mm
reproducibility	± 0.15 %
accuracy	± 1 % (temperature drift internally compensated)

Electrical Data

operating voltage U_B	9 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 80 mA
type of connection	5-pin M12 initiator plug

Outputs

output 1	switching output pnp: I_{max} = 200 mA (U_B-2V) NOC/NCC adjustable, short-circuit-proof
Ausgang 2	switching output pnp: I_{max} = 200 mA (U_B-2V) NOC/NCC adjustable, short-circuit-proof
switching hysteresis	20 mm
switching frequency	5 Hz
response delay	160 ms
delay prior to availability	< 300 ms

Inputs

input 1	com input synchronisation input

Housing

material	stainless steel, plastic parts: PBT, TPU
ultrasonic transducer	coated with PTFE film, FFKM O-ring
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	210 g

Technical Features/Characteristics

temperature compensation	yes
controls	2 push-buttons + LED display (TouchControl)
scope for settings	Teach-in and numeric configuration via TouchControl LCA-2 with LinkControl
synchronization	yes
multiplex	yes
indicators	3-digit LED display, 2 x three-colour LED

Accessories

deployable accessory	LCA-2 LCA-2 Koffer KST5G-2/M12 KST5G-5/M12 KST5A-2/M12 KST5A-5/M12

pin assignment

