

Ultrasonic Tank Sensor: MOTOSONIC

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With the ultrasonic level sensor, MOTOSONIC you enter a new dimension of measuring content levels because measurement of the liquid level in a tank is done contactless by using ultrasonic technology.

The flexible MOTOSONIC can be used for quite a high number of liquids in various tank shapes.

The ultrasonic level sensor MOTOSONIC generates a high frequency sound wave to measure the time, the wave needs to run to the fluid level and back, after it was reflected by the liquid surface. Based on the measured time and the speed of sound, the distance between the sensor and the liquid surface can be calculated, and by this means the tank content as well.

It is important for the calculation to take also the tank shape into account, just as waves on the surface of the liquid or possibly

upcoming reflections in the tank. Compared with classical level sensors, measurement with the ultrasonic method is very precise, because distance is detected with an accuracy of ± 2.5 mm and a resolution of 1.8 mm.

Moreover, measurement is done contactless to the medium, what avoids abrasion of mechanical parts and increases the lifetime of the sensor. Fixing on the tank is realized by a 54 mm 5-hole-flange or an 80 mm 6-hole-flange adapter (other flanges can also be offered on request).

The electrical connection is realized with a Delphi-connector. By programming a table of interpolation values into the sensor, tank contents of various tank shapes can exactly be displayed on standard gauges.

Contact us now with your individual MOTOSONIC inquiry:

Our team is available for personalized consultation and tailored offers.

Get in touch now to discuss optimizing your tank measurement processes and specific product customizations.

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Technical Information

MOTOSONIC 810 with Three-Wire Connection

Three-Wire Connection: Output signal: 0.5 to 4.5 Volts

Operating voltage: 10 to 30 Volts

Output signal: 3-Wire: 0.5 to 4.5 Volts
(Output impedance 1k to 20 kOhm)

Max. measuring length: 810 mm

Blind area: 50 mm

ESD: 15 KV

Mechanical shock: 18 G Shock

Vibration: 4 G, 8 hours each 3 directions in space



Acoustic cone angle: 6 degrees

Operation temperature: -40 to +85 °C

Ultrasonic tank sensors with 54 mm 5-hole flange

Length	Damping	Characteristic Line	Drawing	Art. Nr.	Shop Link
200 mm	Middle	Linear	Drawing	608 043 1115	Buy now
420 mm	Middle	Linear	Drawing	608 043 1051	Buy now
460 mm	Middle	Linear	Drawing	608 043 1017	Buy now
500 mm	Middle	Linear	Drawing	608 043 1007	Buy now
541 mm	Middle	Linear	Drawing	608 043 1001	Buy now
580 mm	Fast	Linear	Drawing	608 043 1059	Buy now
600 mm	Middle	Linear	Drawing	608 043 1044	Buy now
650 mm	Fast	Linear	Drawing	608 043 1039	Buy now
690 mm	Middle	Linear	Drawing	608 043 1033	Buy now
700 mm	Fast	Linear	Drawing	608 043 1013	Buy now
810 mm	Middle	Linear	Drawing	608 043 1014	Buy now
810 mm	Middle	Linear	Drawing	608 043 1027	Buy now
810 mm	Fast	Linear	Drawing	608 043 1038	Buy now

Ultrasonic tank sensor accessories:

Product Image	Product Name	Mounting	Drawing	Art. Nr.	Shop Link
	Tank flange adapter, spacer 54 mm 5-hole flange	54 mm 5-hole flange	Drawing	608 044 0003	Buy now
	Accessories Kit with float, 54 mm 5-hole flange	54 mm 5-hole flange	Drawing	608 044 1005	Buy now

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Special requests? Fill out and send us the configuration document now!

None of the listed products fit your requirements? No worries!

Download our configuration document now, fill in your individual requirements for your Motosonic and send it to info@motometer.de.

We will promptly review the feasibility and get back to you as soon as possible to offer you the best solution.

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Configuration Ultrasonic Sensor

Company: _____
Contact person: _____
Address: _____

Contact person MOTOMETER: _____
Project ident. no.: _____

Tank characteristics:

Characteristic: **linear** ☐ _____
For non linear please attach characteristic!

Range:
at: _____ V to _____ V
(min. 0.5V = empty to max. 4.5V = full)
gauge: _____
(Manufacturer, part-no., input, pin, impedance, range)

Board voltage: ☐ 12 V
☐ 24 V

Measure length: _____ mm
flange diameter: 54mm ☐
80mm ☐

Damping: ☐ 5 sec** ☐ 30 sec ☐ 100 sec
**damping "5 sec" use with focus-tube only!
with focus-tube ☐
length: _____ mm
fluids: _____
(diesel-oil, hydraulic-oil,...)

Comments:

(For quality reasons we only can attend to complete configuration forms!)

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