

## OPTISONIC 4400: New ultrasonic flowmeter for elevated process temperature and pressure

- Inline 2-path ultrasonic flowmeter in high temperature (HT) and high pressure (HP) versions
- OPTISONIC 4400 HT for up to 600°C/ 1112°F, e.g. in concentrated solar power plants (CSP), oil refineries or coal fired thermal power plants
- OPTISONIC 4400 HP for up to 490 bar/ 7107, e.g. oil and gas well injection or processing of (petro)chemical products

### Text:

Duisburg, September 11, 2017: With the new OPTISONIC 4400, KROHNE introduces an inline 2-path ultrasonic flowmeter for flow measurement at elevated process temperature and pressure. It is available in two versions: high temperature (HT) and high pressure (HP).

With a full bore/unobstructed sensor tube and their large dynamic range, both OPTISONIC 4400 versions feature an excellent long term stability and perform with minimum operational and maintenance costs. The dual parallel path design provides information about the flow profile and can also compensate for varying flow profiles. The rugged and fully welded construction without moving parts is complemented by protected cables that are insensitive to electrical interference and/or environmental conditions. Wet calibration is standard for both versions. Options include e.g. redundant designs for safety applications with complete separation of electronics. Next to 4...20mA outputs, OPTISONIC 4400 features HART 7, PROFIBUS PA/DP, Modbus RS485 and Foundation Fieldbus communication (NAMUR NE 107 compliant).

The two versions in more detail:

OPTISONIC 4400 HT is the successor of UFM 530 HT. With a temperature range of -45...+600°C/ -49...+1112°F, it is aimed at flow applications such as molten salt or synthetic thermal oil/HTF in concentrated solar power plants (CSP), hot liquid hydrocarbons in oil refineries, or feed water measurement in coal fired thermal power plants. It features an accuracy of  $\pm 0,5\% \pm 5$  mm/s in a measurement range of 0.5...20 m/s/ 1,7...66 ft/s, and foil wave guide transducers with standardized length and flexibility in frequency depending on the application. Sensor material is ASTM A1106 Gr B/ A105N as standard in a diameter range DN25...1000/ 1...40".

With a pressure range up to 490 bar/ 7107 psi, OPTISONIC 4400 HP aims at high pressure applications, e.g. water/chemical well injection or transportation networks in the oil and gas industry up to usage in petrochemical/refinery units or chemical plants. It features an accuracy of  $\pm 1\%$  of m.v.  $\pm 10$  mm/s. As standard, sensor material is stainless steel AISI 316(L), in a diameter range DN25...200/ 1...8".

About KROHNE:

KROHNE is a full-service provider for process measuring technology for the measurement of flow, mass flow, level, pressure and temperature as well as analytical tasks. Founded in 1921 and headquartered in Duisburg, Germany, the company employs over 3,700 people all over the world and is present on all continents. KROHNE stands for innovation and maximum product quality and is one of the market leaders in industrial process measuring technology.

**Picture:**

**Caption:** New ultrasonic flowmeter OPTISONIC 4400 for liquids is available in two versions: high pressure HP (two left) and high temperature HT (right)

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