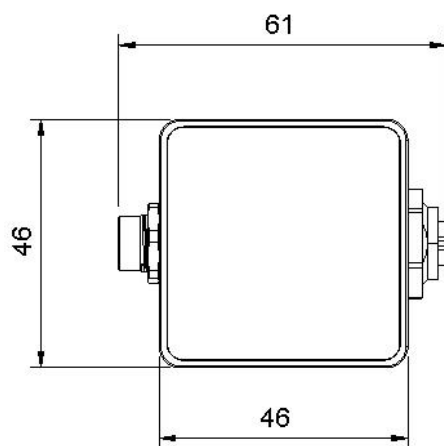
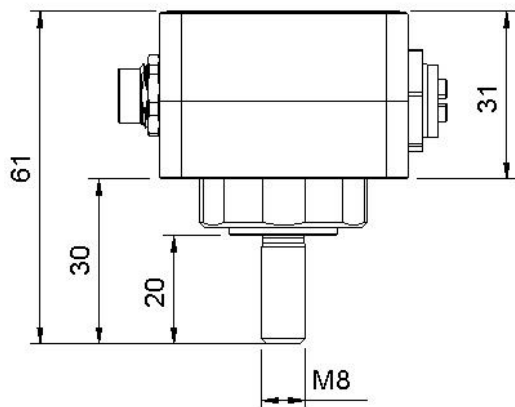


sealDOT

A compact multi-sensor node for pump monitoring, equipped with a 3-axis vibration sensor, enables precise detection of vibrations and temperature. The integrated magnetic field sensor also enables the detection of rotation speed, speed direction and offers start/stop detection. The patented seal monitoring based on ultrasound additionally provides seal temperature, lubrication condition and dry running.



Measured Values

- Temperature measurement: -30°C to 100°C ($\pm 1,6^\circ\text{C}$)
- Vibration measurement: effective value (m/s², mm/s), crest factor, kurtosis factor, absolute maximum value, 5 configurable frequency ranges (peak, frequency, effective value)
- Motor speed detection, start/stop-detection
- Bandwidth: 5 Hz to 5 kHz
- Amplitude: $\pm 2/\pm 4/\pm 8/\pm 16$ g
- Measuring interval: 1 s
- Seal temperature: -50°C to 250°C ($\pm 2^\circ\text{C}$)
- Lubrication of the seal:
 - green: Hydrodynamic
 - yellow: Mixed friction, particles, evaporation
 - red: dry running

Operating Conditions

- Operating temperature: -30°C to 65°C
- Storage / transport temperature: -30°C to 75°C

Electrical Data

- Voltage (PoE): 44 tp 57 VDC (PoE IEEE802.3af)
- Max. power consumption: 1 W
- Protection class: III

Housing

- H x W x D: 62,5 x 47 x 47 mm
- Weight: 275 g
- Assembly: single screw fastening M8
- Material: 303 stainless steel
- Protection class: IP65

Interfaces and Outputs(digital)

- Ethernet via M12
- Wireless connection
- Connection for sensorized mechanical seal M8

Communication Protocols

- OPC-UA for communication with the control center/control system
- MQTT for communication with the cloud
- Wireless connection with the app

Display Option of the sealDOT

- Status LED & Health LED: color indication of status (traffic light system)
- threshold values adjustable for user via digital interfaces

Part number U-DSSE-01