Level Pressure Flow Temperature Liquid Analysis Registration Systems Components Services Solutions

Technical Information

# Condumax W CLS15 and CLS15D

## Conductivity sensors, analog or digital with Memosens technology, Cell constant k = 0.01 $cm^{-1}$ or k = 0.1 $cm^{-1}$

### Application

Measurement in pure and ultrapure water:
- Monitoring ion exchangers
- Reverse osmosis
- Distillation
- Chip cleaning

The measuring range of the sensors depends on the cell constant k:
- k = 0.01 $cm^{-1}$: 0.04 to 20 µS/cm
- k = 0.1 $cm^{-1}$: 0.1 to 200 µS/cm

Sensors with a temperature sensor are used together with conductivity transmitters equipped with automatic temperature compensation:
- Liquiline M CM42
- Mycom S CLM153
- Liquisys M CLM223/253

For measurement of resistivity, MΩ · cm measuring ranges are available in the menus of these transmitters.

### Your benefits

- High measuring accuracy as cell constant is individually measured
- Installation in pipes or flow chambers
- Compact design
- Available with plug-in head or fixed cable
- Easy to clean thanks to polished measuring surfaces
- Can be sterilized up to max. 140°C (284°F)
- Stainless steel 1.4435 (AISI 316L)
- Quality certificate stating the individual cell constant
- Available with inspection certificate according to EN 10204 3.1

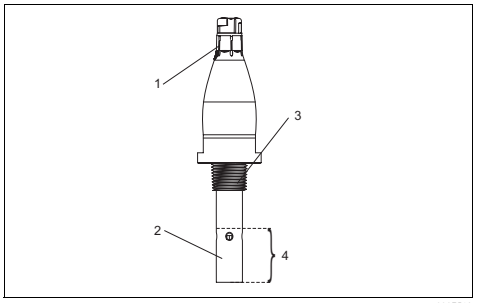
### Further benefits offered by Memosens technology

- Maximum process safety through contactless inductive signal transmission
- Data safety through digital data transmission
- Easy handling thanks to storage of sensor-specific data
- Predictive maintenance possible thanks to registration of sensor load data

TI109C/24/ae/10.07

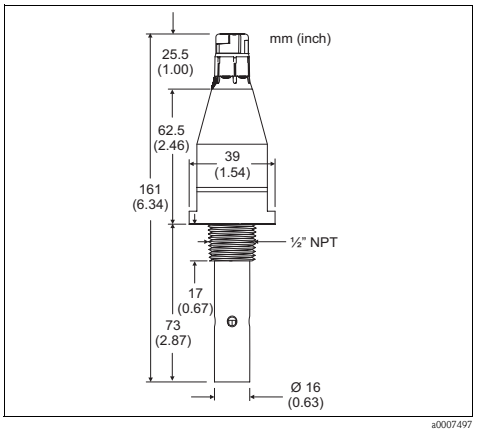
Endress+Hauser
People for Process Automation

**Design, dimensions CLS15D**

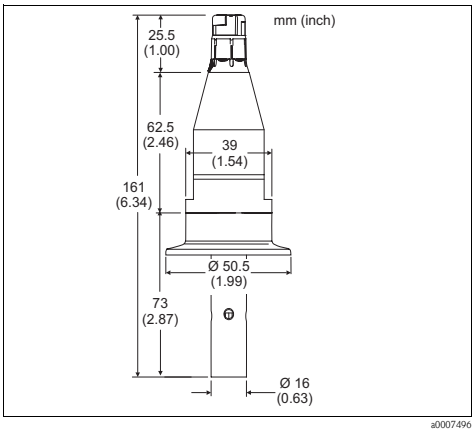



Version with thread NPT ½"

1 Memosens plug-in head
2 Coaxial measuring electrode
3 NPT ½" thread
4 Minimum immersion depth




Dimensions of version with NPT thread




Dimensions of version with clamp

**Weight**

Depending on version, approx. 0.3 kg (0.7 lb.)

**Materials**

| | |
|---|---|
| Electrodes: | polished, stainless steel 1.4435 (AISI 316L) |
| Sensor shaft: | polyethersulfone (PES-GF20) |
| O-ring, in contact with medium (clamp version only): | EPDM |

**Surface roughness**

$R_a \leq 0.8$ µm
($R_a \leq 0.4$ µm available under TSP C-LS020130-02)

**Process connection**

CLS15

| | |
|---|---|
| Fixed-cable versions: | Thread NPT ¾", clamp 1-½" acc. to ISO 2852 |
| Plug-in head versions: | Thread NPT ½", clamp 1-½" acc. to ISO 2852 |
| CLS15D: | Thread NPT ½" and ¾", clamp 1-½" acc. to ISO 2852 |

# Certificates and approvals

**Ex approval**[1)]

- ATEX II 1G EEx ia IIC T3 / T4 / T6
- FM/CSA in combination with the Liquiline M CM42 and Mycom S CLM153 transmitters

For all product versions listed in the product structure (see Ordering Information)

Note!
Ex versions of digital sensors with Memosens technology are indicated by an orange-red ring in the plug-in head.

1) Approval for CLS15D pending