

Conductivity Measuring Cells *CLS 20*

Two-electrode measuring cells with constant $k = 1/\text{cm}$



The compact conductivity measuring cells have been designed especially for measurement in industrial water. The measuring cells are used together with conductivity measuring instruments of the Mycom and Liquisys families.

The measuring range for cells with a constant of $k = 1/\text{cm}$ is from $50 \mu\text{S}/\text{cm}$ to $500 \mu\text{S}/\text{cm}$.

Areas of application

- Service water
- Waste water treatment

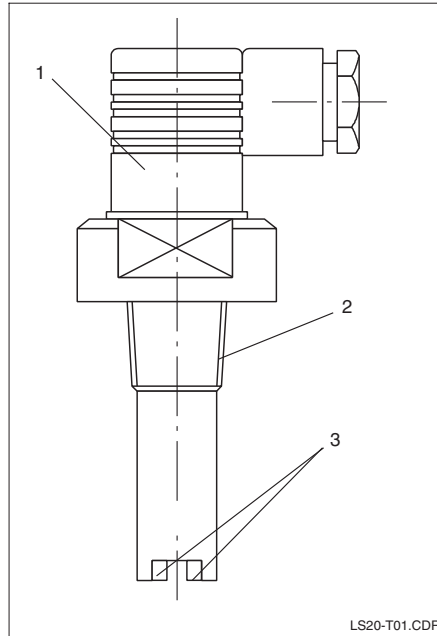
Benefits at a glance

- High chemical, thermal and mechanical stability
- Installation in pipes or flow chambers
- Compact design



Operating principle

- CLS 20
1 Four-pin connector
2 NPT thread
3 Rod electrodes



The measuring cells can be used at temperatures up to 120 °C. The threaded PVC coupling supplied (max. temperature 60 °C) can be bonded to commercially available PVC crosses and tees (DN 25). The cell can then be easily screwed in and is pressure proof up to 6 bar.

For simple measuring cell installation in crosses or tees with DN 32, 40 or 50, specially designed adapters (made of PVC and suitable for cementing) are available.

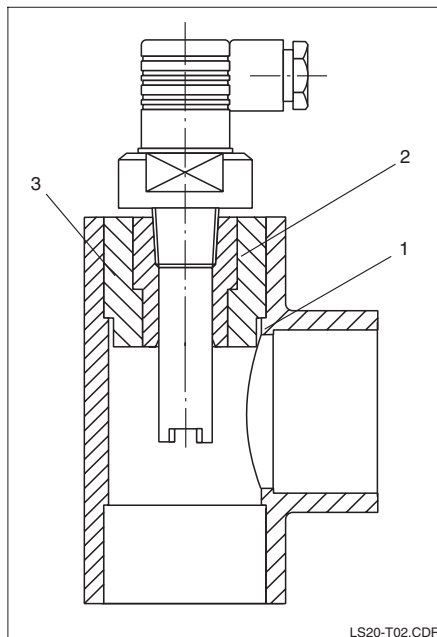
When installing the measuring cell, make sure that the rod electrodes are immersed completely into the medium during operation.

The two-electrode measuring cell CLS 20 is supplied with an alternating voltage by the conductivity measuring transmitter. The alternating current flowing through the measuring electrodes and the medium is determined by the conductivity of the medium. The rod electrodes in the measuring cell are made of stainless steel (SS 316Ti), the cell shaft of PES.

The cells are connected via a 4-pin plug connector which can be secured with a screw. The measuring cable is introduced through a Pg 9 cable gland.

Installation

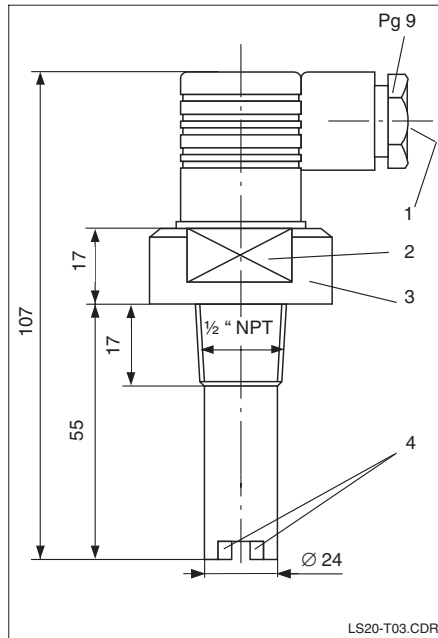
- 1 DN 32, 40 or 50
2 Adapter for cementing
(for DN 32, 40 or 50)
3 Threaded coupling
(for cementing) is
supplied with the cell



Installation of the measuring cell in a standard DN 32, 40 or 50 cross or T-piece by using a bonded adapter coupling. No adapter is required for installation in DN 25 crosses or tees.

Dimensions

Dimensions CLS 20
with thread 1/2" NPT
1 Cable entry
2 36 AF
3 PES shaft
4 SS 316Ti



Electrical connections

The conductivity measuring cable is connected to the plug connector terminals according to the following table:

	Terminal	SMK cabel
Inner electrode	2	Inner conductor
Outer electrode	⊕	Screen

Accessories

- ❑ Adapter AM 32
PVC adapter coupling for cementing.
For installation of CLS 20 with thread
in a commercial T 90 tee or
DN 32 cross.
- ❑ Adapter AM 40
As AM 32, but for DN 40
- ❑ Adapter AM 50
As AM 32, but for DN 50

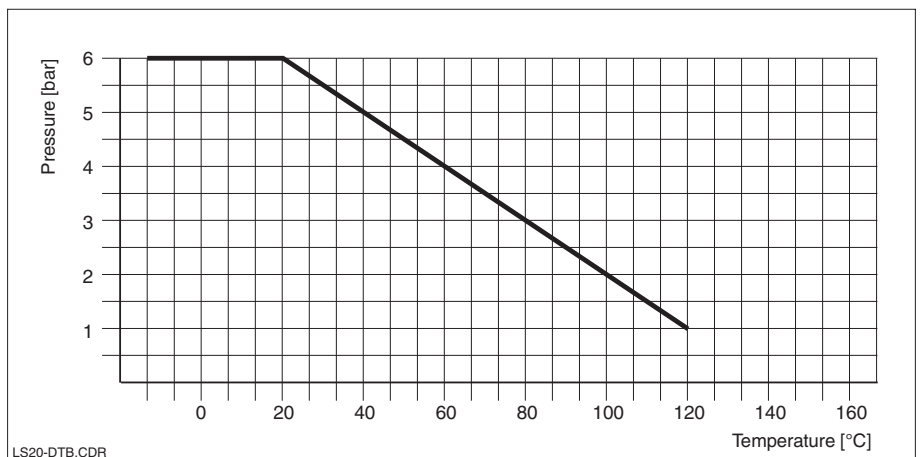
Order no.
50004738

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Pressure/temperature diagram

Pressure/temperature
diagram



Technical data

General data

Manufacturer	Endress+Hauser
Product designation	Measuring cell CLS 20

Material

Cell shaft	PES (polyethersulfone)
Electrodes	stainless steel 316Ti

Conductivity measurement

Cell constant k	1/cm
Measuring range	50 μ S/cm to 500 μ S/cm

Operating data

Ingress protection	IP 65
Max. temperature	cell: 120 °C cell with threaded PVC coupling: 60 °C
Max. pressure	6 bar (20 °C)

Process connection

Threaded coupling for cementing	PVC, max.temperature 60 °C
Internal thread	1/2" NPT, 3/4" NPT
Connection	four-pole plug with Pg 9 cable gland for measuring cable connection

Subject to modifications.

Product structure

Measuring cell CLS 20				
Cell constant				
C	50,0 μ S ... 500,0 μ S/cm (k = 1)			
Process connection / material				
1A	Thread 1/2" NPT / PES-cell shaft			
1B	Thread 3/4" NPT / PES-cell shaft			
Measuring surface / sealing				
1	Stainless steel / EPDM			
Temperature sensor				
D	Without temperature sensor			
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CLS 20 -				

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Endress + Hauser
 Nothing beats know-how

