

Sensors for Conductivity Measurement

Chem

Energy

Pharm

Food

Water



SE 655 Toroidal Conductivity Sensor

Universal and precise sensor with high chemical resistance over a very large measuring range, for heavily polluted media

Corrosion-resistant toroidal sensor for measuring pure water up to maximum conductivities. Smooth, easy-to-clean design. High accuracy due to electrodeless measurement. Low risk of contamination because of large sensor opening. Also for hazardous locations.

Applications

Concentration measurement of acid and alkaline solutions, heavily polluted media, coating-forming and oil-containing media, salt spring, heavily polluted wastewaters, cooling water blowdown, concentrate monitoring, regeneration of ion exchangers

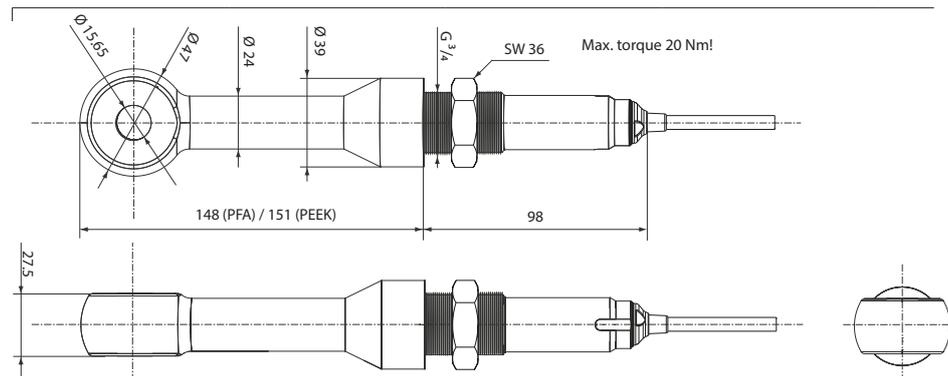
Facts

- Robust design
- Extremely large measuring range due to inductive measuring principle
- Insensitive to contamination
- No process-wetted electrodes
- High chemical resistance (PEEK)
- Measurement in hazardous locations
- Steam-sterilizable
- CIP-capable

Specifications

Cell factor:	Approx. 2/cm (≥ 30 mm distance to wall)
Measuring range:	0.002 to 2000 mS/cm
Accuracy:	$\pm (5 \mu\text{S/cm} + 0.5\% \text{ measured value})$ at $-20^\circ\text{C} \dots +100^\circ\text{C}$ $\pm (10 \mu\text{S/cm} + 0.5\% \text{ measured value})$ at $>100^\circ\text{C}$
Material:	Cell: PEEK; gasket: FKM (Viton)
Temperature detector:	Pt 100 (Class A)
Temperature:	$-20 \dots +125^\circ\text{C}$
Temp. response time t_{90} :	Approx. 7 min
Pressure:	0 ... 20 bar
Cable:	Fixed cable, 5 m
Protection:	IP 68 (when mounted)
Assembly:	G 3/4" (36-mm nut and FKM (Viton) gasket included in shipment)
ATEX Certificate (SE 655 X):	II 1 G Ex ia IIC T4/T6 Ga

Dimension Drawing



All dimensions in mm

Product Range

SE 655 conductivity sensor	G 3/4"
SE 655X conductivity sensor	G 3/4"

Order No.

SE 655
SE 655X

Accessories

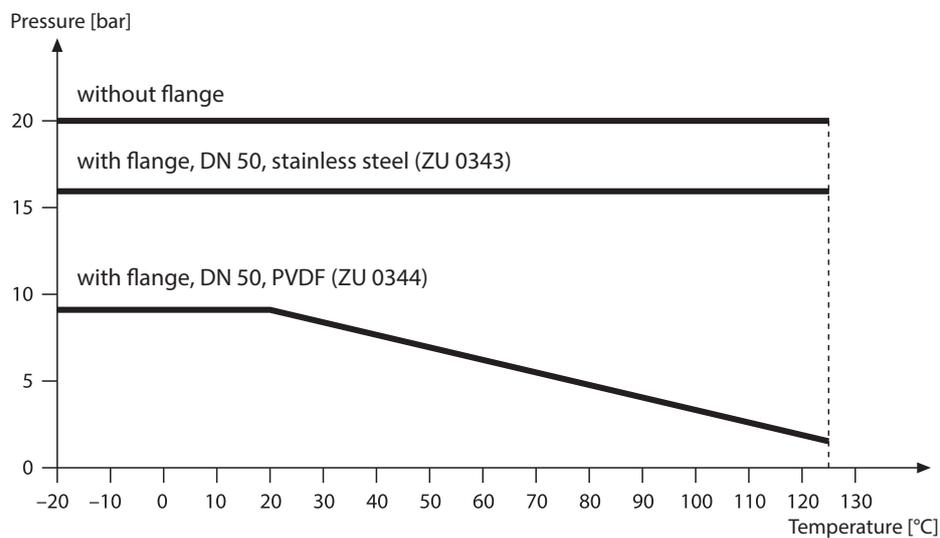
Flange DN 50 PN 16	Material: 316 L
Flange DN 50 PN 10	Material: PVDF
Sealing set A (spare parts)	Nut + FKM (Viton) O-ring (3 x)
Sealing set C	PTFE washer, DN 50 (protects ZU 0343 flange against aggressive media)
Conductivity standard*)	KCl 0.1 mol/l 12.88 mS/cm ± 1.5 % 250 ml

Order No.

ZU 0343
ZU 0344
ZU 0340N
ZU 0342N
ZU 0348

*) Observe instructions for use (field conditions)

Pressure/Temperature Diagram



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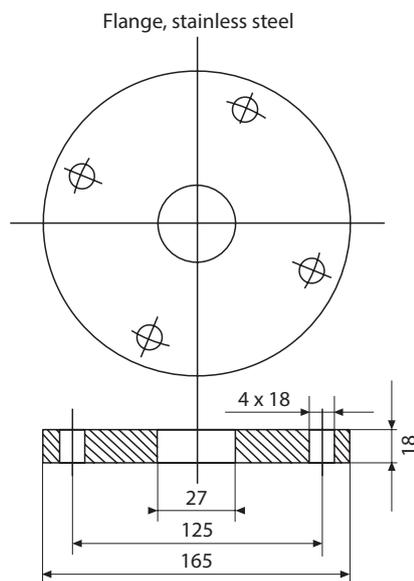
Accessories / Specifications

316 L flange
ZU 0343



DN 50 PN 16

Dimension drawing:

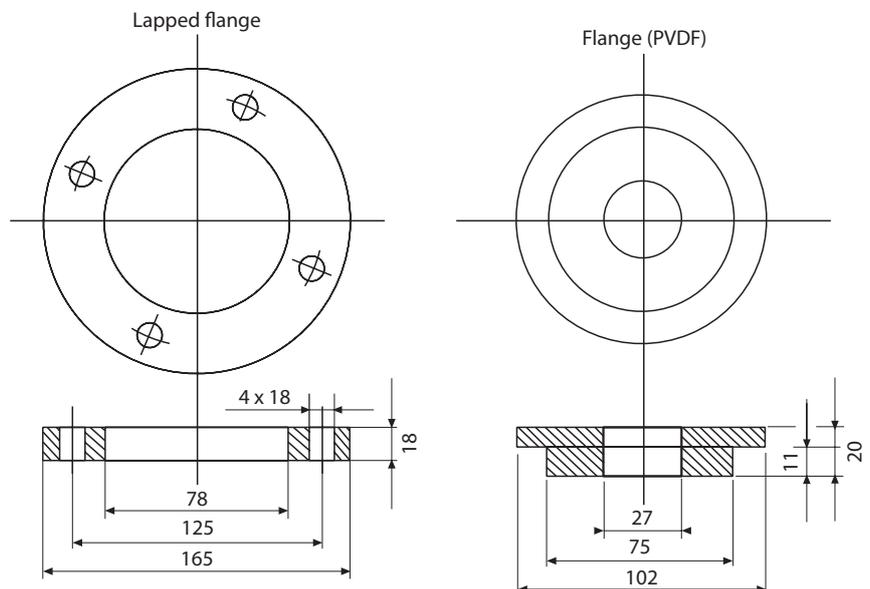


PVDF flange
ZU 0344



DN 50 PN 10

Dimension drawings:



Overview of Accessories and Assembly

Example:

