

# 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

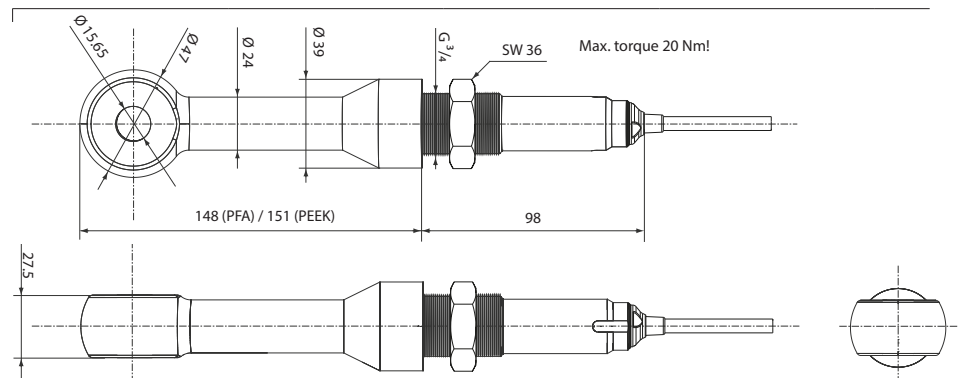
### Facts

- 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:	± (5 µS/cm + 0.5 % measured value) at -20 °C ... +100 °C ± (10 µS/cm + 0.5 % measured value) at >100 °C
Material:	Cell: PEEK; gasket: FKM (Viton)
Temperature detector:	Pt 100 (Class A)
Temperature:	-20 ... +125 °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

# Knick

## Product Range

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

Order No.

**SE 655**  
**SE 655X**

## Accessories

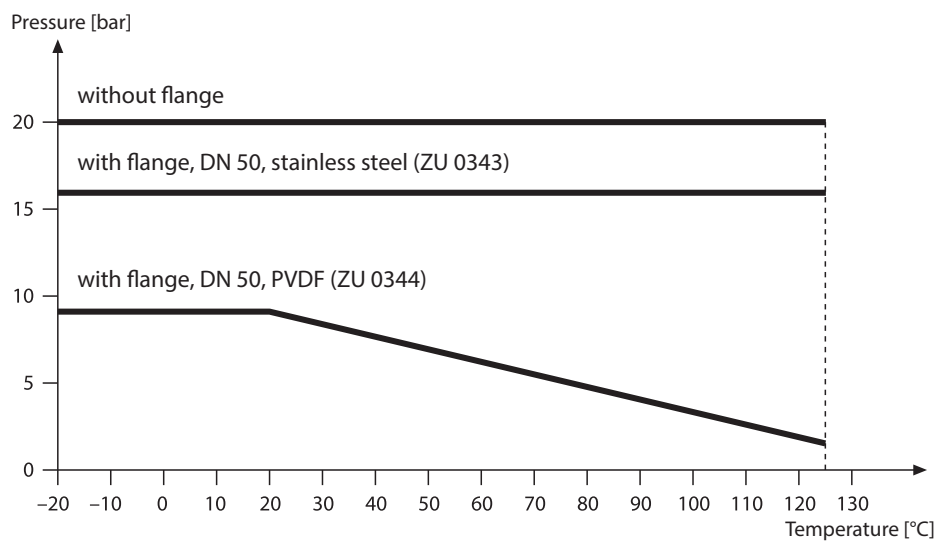
Flange DN 50 PN 16	Material: 316 L
Flange DN 50 PN 10	Material: PVDF
Sealing set A (spare parts)	Nut + FKM (Viton) O-ring (3 x)
Sealing set C	PTFE washer, DN 50 (protects ZU 0343 flange against aggressive media)
Conductivity standard*)	KCl 0.1 mol/l 12.88 mS/cm ± 1.5 % 250 ml

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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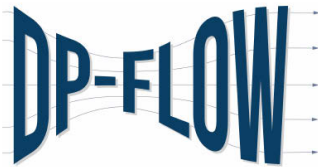
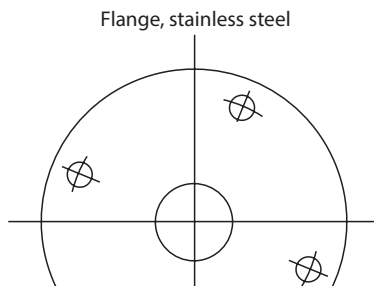
### Accessories / Specifications

316 L flange  
ZU 0343



DN 50 PN 16

Dimension drawing:



www: [www.dp-flow.co.uk](http://www.dp-flow.co.uk) email: [sales@dp-flow.co.uk](mailto:sales@dp-flow.co.uk)

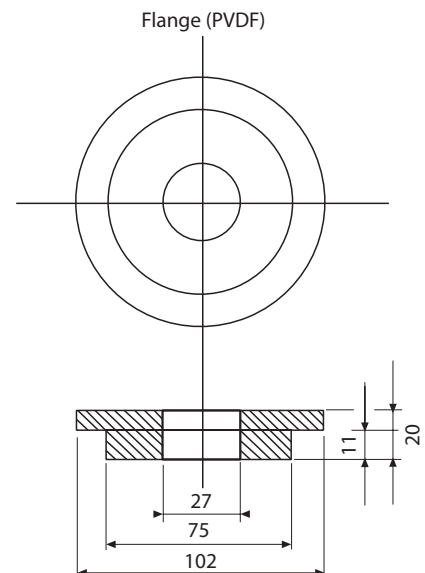
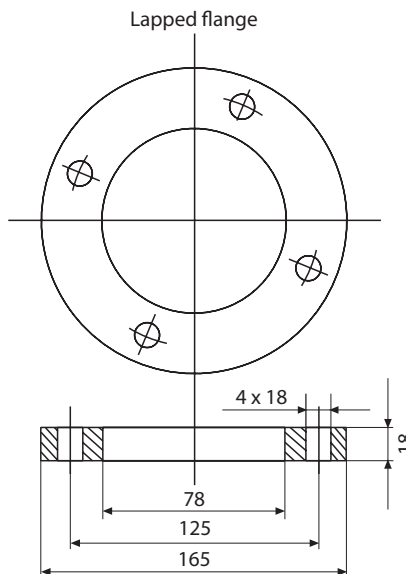


PVDF flange  
ZU 0344



DN 50 PN 10

Dimension drawings:



## Overview of Accessories and Assembly

Example:

