

DIGITAL
Memosens Protocol



SE 680 Toroidal Conductivity Sensor

High-precision sensor made of FDA-approved PEEK with an extremely large measuring range. Steam-sterilizable.

The joint- and gap-free, sealless design and stain-resistant surface made of Virgin PEEK make the SE 680 a heavy-duty sensor. The inductive technology is not influenced by polarization and does not have any sensor surfaces subject to corrosion.

Applications

Fresh water technology, dairy products, breweries, soft drink manufacturing, electroplating, air-conditioning, CIP monitoring in the beverage industry, pharmaceutical applications, cooling tower monitoring, on-site wastewater treatment plants, monitoring concentrations of salt solutions, alkalis and acids, washers, and rinsing processes

Facts and Features

- Compact design
- Competitively priced
- Large measuring range
- Quick-reacting temperature detector
- Digital data transfer
- Sealed plastic surface
- Virgin PEEK, FDA type
- Varivent with EHEDG

Specifications

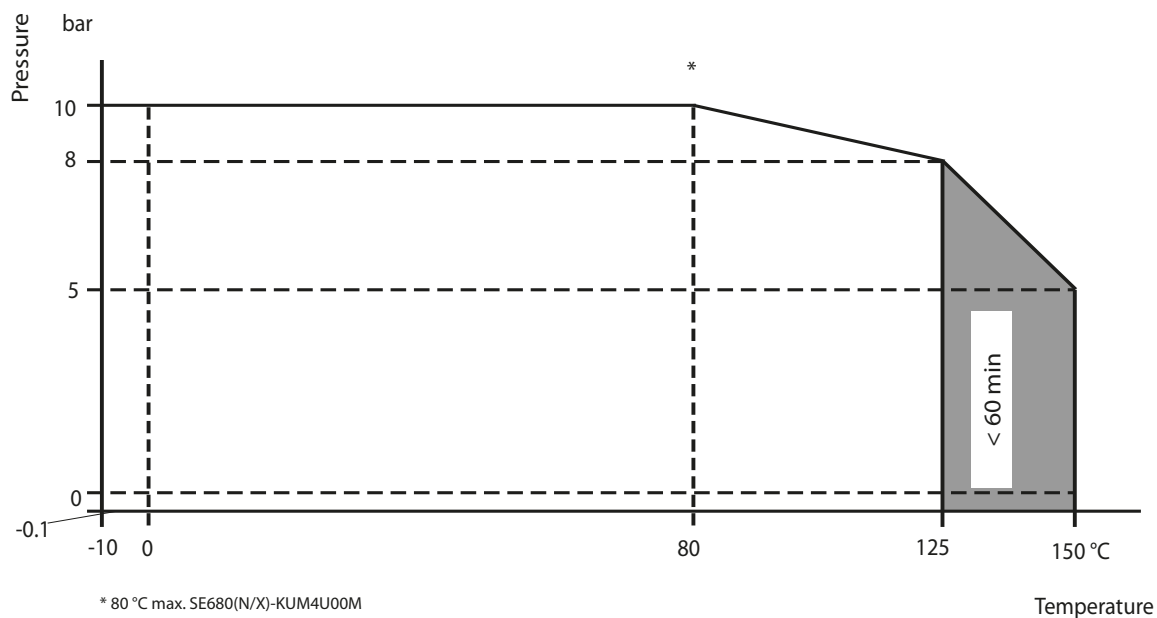
Cell factor:	c ≈ 5.0/cm
Installation factor:	1 (adjustable)
Measuring range:	0 ... 2000 mS/cm
Error:	± 1 % meas. val. + 0.002 mS/cm, ± 0.02 %/K
Resolution:	2 µS/cm
Process-wetted materials:	Virgin PEEK, FDA type
Non-wetted materials:	PP-ESD
Temperature detector:	Pt1000
Response time:	T ₉₀ approx. 30 s
Process temperature:	-10 ... +125 °C (see PT diagram) -10 ... +80 °C (SE680(N/X)-KUN4U00M)
Sterilization:	≤ 5 bar / ≤ 150 °C / ≤ 60 min
Ambient temperature:	-20 ... +60 °C
Process pressure P _{rel} :	-0.1 ... 10 bar (see PT diagram)
Electrical connection:	M12 plug, 4-pin Cable length max. 100 m

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Specifications

Certificates:	FDA CFR 177.2415
EHEDG	Type EC Class I (SE680(N/X)-KUN4U00M
Explosion protection:	IECEX TUN 15.0026 X
SE680X-*****M	Ex ia IIC T6/T4/T3 Ga
	TÜV 15 ATEX 154534 X
	Ⓜ II 1 G Ex ia IIC T6/T4/T3 Ga
Temperature class:	Ambient and process temperature range
T6	-20 °C ≤ Ta ≤ +75 °C
T4	-20 °C ≤ Ta ≤ +125 °C
T3	-20 °C ≤ Ta ≤ +150 °C

Pressure/Temperature Diagram



Product Range

		Order No.	
		SE 680	<input type="checkbox"/> - <input type="checkbox"/> N4U00M
Explosion protection	Safe area	N	
	Hazardous area Zone 0	X	
Process connection	Dairy pipe DN50		C1
	Varivent pipe ≥ DN50		V1
	Clamp 2"		J2
	for ARF 210/215		K8
	SMS 2"		M2
	for ARD 75		KU

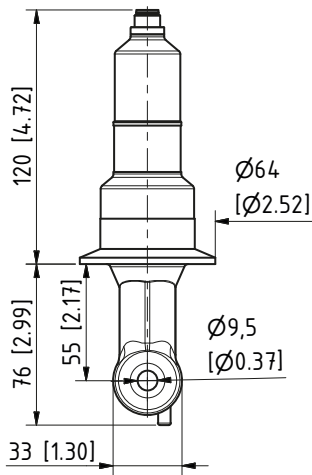
Accessories

		Order No.	
Digital cable with M12 socket	5 m	CA/M12-005NA	
	10 m	CA/M12-010NA	
	20 m*	CA/M12-020NA	
		Order No.	
Conductivity standard	KCl 0.1 mol/l 12.88 mS/cm ± 1.5 %	250 ml	CS-C12880K/500

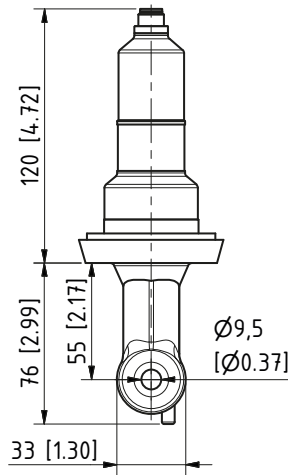
* Greater lengths on request (max. 100 m)

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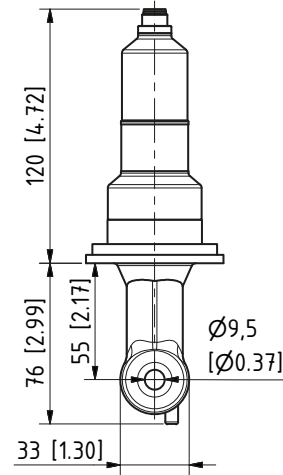
Dimension Drawings / Process Connections / Order References



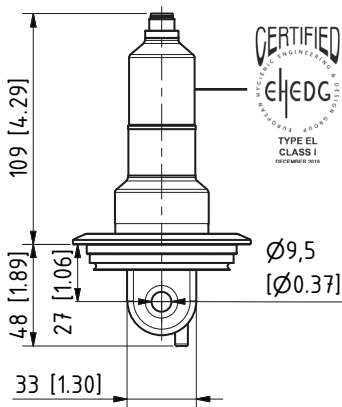
Clamp 2"
SE680(N/X)-J2N4U00M



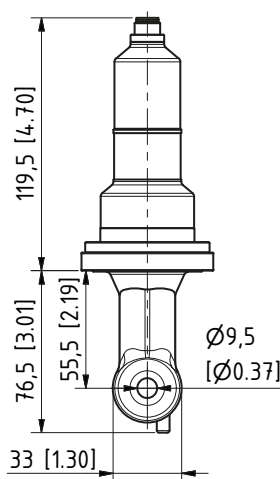
Dairy pipe DN 50
SE680(N/X)-C1N4U00M



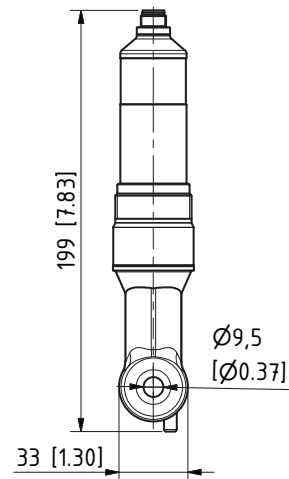
SMS 2"
SE680(N/X)-M2N4U00M



Varivent DN 50 or larger
SE680(N/X)-V1N4U00M



for ARF 210/215
SE680(N/X)-K8N4U00M



for ARD 75
SE680(N/X)-KUN4U00M

All dimensions in mm [inches].