

# Sensors for Conductivity Measurement

Pharm

Food

MEMOSENS



## SE 605 (H) Memosens Conductivity Sensor

**Robust 2-electrode sensor, for precise and reliable measurement of low and very low conductivities, particularly in ultrapure water, digital, with Memosens technology**

Robust, coaxially arranged electrodes made of stainless steel. Large measuring range from ultrapure water to 1000  $\mu\text{S}/\text{cm}$  with only one sensor model (cell constant). Integrated temperature detector for exact temperature compensation. Easy to clean thanks to replaceable outer electrode.

### Applications

Ultrapure water, WFI (water for injection), pharmaceutical and food industry, biotechnology

### Facts

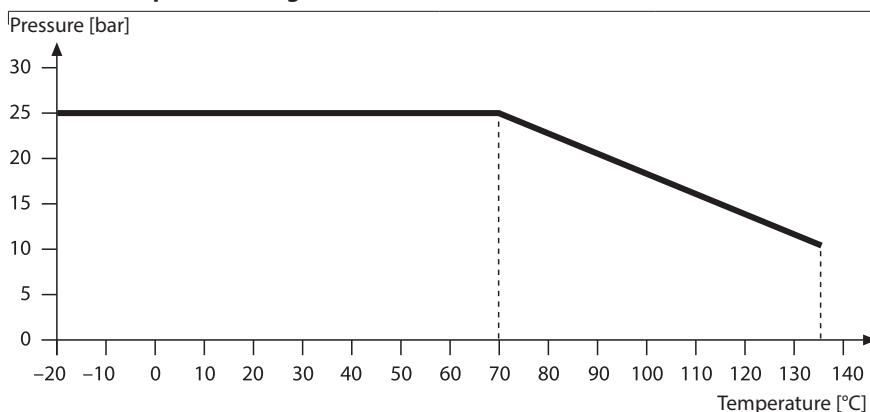
- Perfect galvanic isolation thanks to Memosens technology
- Digital data transfer
- Integrated sensor diagnostics

- Large measuring range from ultrapure water to 200  $\mu\text{S}/\text{cm}$
- Hygienic design
- Electropolished – roughness 0.4 to 0.8  $\mu\text{m}$
- FDA-certified materials
- Coaxially arranged electrodes
- Independent of installation conditions
- Integrated temperature detector
- High level of process safety due to durable materials and robust design
- Easy to clean thanks to detachable outer electrode
- Particularly suitable for monitoring ultrapure water in power plants
- Calibration Certificate

### Specifications

Cell constant:	0.021/cm $\pm$ 1 %
Measuring range:	0.04 ... 200 $\mu\text{S}/\text{cm}$
Accuracy:	$\pm$ 2% meas. value
Repeatability:	0.2 % meas. value + 3 nS/cm
Response time:	$T_{95} < 3$ s
Material:	Cell and electrodes: stainless steel 1.4435, PEEK insulator
Temperature detector:	NTC 30 kohms
Temperature:	Medium: -20 ... +135 °C Environment: -25 ... +80 °C
Pressure:	Max. 25 bar (-20 ... +70 °C) Max. 10 bar (135 °C)
Process adaptation:	See product line
Sensor connector:	Memosens

### Pressure/Temperature Diagram

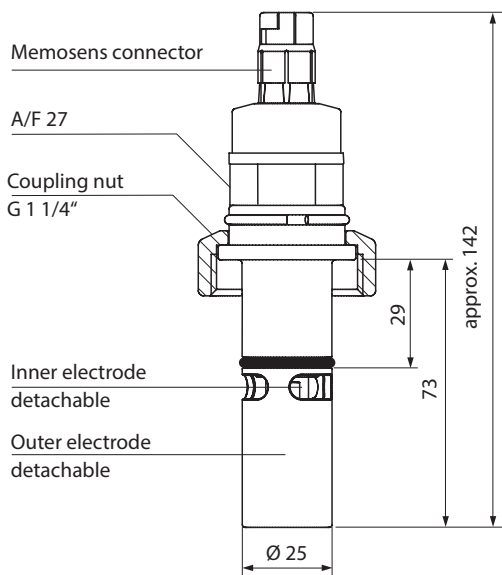


For up-to-date information, please visit [www.knick.de](http://www.knick.de)

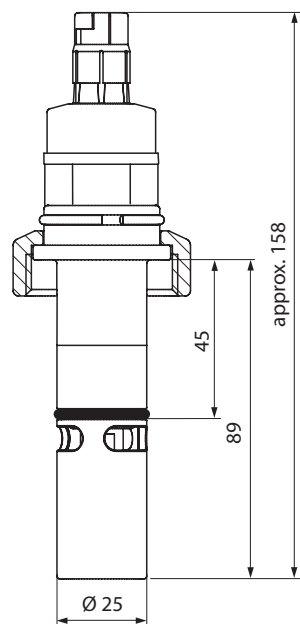
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### Dimension Drawings

**Ingold socket process adaptation,  
e.g. 40 mm (H0)**



**Ingold socket process adaptation,  
e.g. 50 mm (HZ)**



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## SE 605 Memosens Conductivity Sensor

Product Range		Order No.						
		<b>SE 605 -</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explosion protection	Without ATEX	<b>N</b>						
		<b>X</b>						
Sensor cap	Memosens, digital		<b>MS</b>					
	M12 (8-pin), analog		<b>12</b>					
Process adaptation	Ingold socket, 25 mm (G 1 1/4"), 29-mm groove			<b>H</b>	<b>0</b>			
	Ingold socket, 25 mm (G 1 1/4"), 45-mm groove			<b>H</b>	<b>Z</b>			
	G1			<b>G</b>	<b>1</b>			
	For ball-valve fitting, length = 110 mm			<b>A</b>	<b>1</b>			
	For ball-valve fitting, length = 210 mm			<b>A</b>	<b>2</b>			
Gasket material	Elastomeric ring set F, FKM (Viton) FDA					<b>F</b>		
	Elastomeric ring set E, EPDM FDA					<b>E</b>		
	Elastomeric ring set H, FFKM FDA					<b>H</b>		
Certificates	Without						<b>0</b>	
	Material Certificate 3.1 and roughness < 0.8 µm						<b>1</b>	

Accessories		(Details from pages 134 and 206)				Order No.	
Memosens cable		3 m				<b>CA/MS-003NAA</b>	
		5 m				<b>CA/MS-005NAA</b>	
		10 m				<b>CA/MS-010NAA</b>	
		20 m <sup>*)</sup>				<b>CA/MS-020NAA</b>	
Memosens cable, Ex		3 m				<b>CA/MS-003XAA</b>	
		5 m				<b>CA/MS-005XAA</b>	
		10 m				<b>CA/MS-010XAA</b>	
		20 m <sup>*)</sup>				<b>CA/MS-020XAA</b>	
Conductivity standard	KCl	300 ml	15 µS/cm	± 1 %		<b>ZU 0350</b>	
	KCl	500 ml	147 µS/cm	± 1 %		<b>ZU 0702</b>	
Calibration Certificate						<b>ZU 0320</b>	
Safety weld-in socket, straight, 40 mm	For tank wall					<b>ZU 0717</b>	
	For pipe, DN 50					<b>ZU 0717/DN50</b>	
	For pipe, DN 65					<b>ZU 0717/DN65</b>	
	For pipe, DN 80					<b>ZU 0717/DN80</b>	
	For pipe, DN 100					<b>ZU 0717/DN100</b>	
Safety weld-in socket, beveled, 15°, 40 mm	For tank wall					<b>ZU 0718</b>	
	For pipe, DN 50					<b>ZU 0718/DN50</b>	
	For pipe, DN 65					<b>ZU 0718/DN65</b>	
	For pipe, DN 80					<b>ZU 0718/DN80</b>	
	For pipe, DN 100					<b>ZU 0718/DN100</b>	

<sup>\*)</sup> Greater lengths on request

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Isolation Amplifiers  
Transmitters

Indicators

Process Analytics

Portable Meters

Laboratory Meters

Sensors

Fittings

**Knick** 

## SE 605H Memosens Conductivity Sensor

### Product Range

Order No.

		SE 605H -					
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explosion protection	Without ATEX	<b>N</b>					
		<b>X</b>					
Sensor cap	Memosens, digital M12 (8-pin), analog		<b>MS</b>				
			<b>12</b>				
Process adaptation	Ingold socket, 25 mm (G 1 1/4"), 29-mm groove			<b>H</b>	<b>0</b>		
	Ingold socket, 25 mm (G 1 1/4"), 45-mm groove			<b>H</b>	<b>Z</b>		
	Clamp 1.5"			<b>J</b>	<b>1</b>		
	Clamp 2"			<b>J</b>	<b>2</b>		
	Varivent, 1.4435, for pipe ≥ DN 40/50			<b>V</b>	<b>1</b>		
	Varivent, 1.4435, for pipe, ≥ DN 80			<b>V</b>	<b>2</b>		
Gasket material	Elastomeric ring set F, FKM (Viton) FDA					<b>F</b>	
	Elastomeric ring set E, EPDM FDA					<b>E</b>	
	Elastomeric ring set H, FFKM FDA					<b>H</b>	
Certificates	Without						<b>0</b>
	Material Certificate 3.1 and roughness < 0.8 µm						<b>1</b>
	Material Certificate 3.1 and roughness < 0.4 µm						<b>2</b>
	Material Certificate 3.1 and roughness < 0.8 µm USP<88> <661>						<b>3</b>
	Material Certificate 3.1 and roughness < 0.4 µm USP<88> <661>						<b>4</b>