

CONDUCTIVITY MEASURING TRANSDUCER



HIGHLIGHTS:

- Compact measuring cells
- Freely scalable
- Adjustable cell constant
- Local display
- Integrated temperature compensation
- Measuring cell included, pre-adjusted

Optional PG (with PG 13.5 thread)  
up to 6 bar (@ 22 °C)  
Standard cable length: 1 m

Laboratory measuring cells  
best value  
Standard cable length: 1 m

Professional, field installation M12,  
G 1/2 A fitting, max. 16 bar (@ 22 °C)  
Standard cable length: 5 m

**GLMU 200 MP-TR**

Conductivity measuring transducer,  
incl. 2-pole measuring cell

**General:**

2-pole measuring cells,  
suitable for use in clean / potable / fresh  
water  
Recommended usage range:  
up to 2000 µS/cm  
4 Measuring ranges:  
0.1 µS/cm ... 200.0 mS/cm



**GLMU 200 MP-TR**  
Art. no. 607814  
Ø 12 mm 2-pole measuring cell LFE 202  
Graphite, C=1.0; -5 ... +80 °C

PG 13.5 THREAD



**GLMU 200 MP-TR-PG**  
Art. no. 607815  
Ø 12 mm 2-pole measuring cell LFE 202-PG;  
Graphite, C=1.0; -5 ... +80 °C



PROFESSIONAL

**GLMU 200 MP-TRP\*)**  
Art. no. 607816  
Ø 16 mm 2-pole measuring cell LFE 230  
Graphite, C=0.9; 0 ... +60 °C  
(higher available on request)

**GLMU 400 MP-SW**

Conductivity measuring transducer,  
incl. 4-pole measuring cell

**General:**

4-pole measuring cells,  
especially well-suited for use above  
2000 µS/cm, applications susceptible to  
contamination, sea water, etc.  
5 Measuring ranges:  
0.1 µS/cm ... 500 mS/cm



**GLMU 400 MP-SW**  
Art. no. 607819  
Ø 12 mm 4-pole measuring cell LFE 400  
Graphite, C=0.55; -5 ... +80 °C

PG 13.5 THREAD



**GLMU 400 MP-SW-PG**  
Art. no. 607820  
Ø 12 mm 4-pole measuring cell LFE 400-PG  
Graphite, C=0.55; -5 ... +80 °C



PROFESSIONAL

**GLMU 400 MP-SWP\*)**  
Art. no. 607821  
Ø 16 mm 4-pole measuring cell LFE 430  
Graphite, C=0.4; 0 ... +60 °C  
(higher available on request)

**GLMU 200 MP-RW**

Clean/cleanest water measuring system

**General:**

2-pole measuring cells,  
recommended usage range up to  
200 µS/cm  
Usage range up to 200 µS/cm  
2 measuring ranges: 0.01 ... 200.0 µS/cm



**GLMU 200 MP-RW**  
Art. no. 607817  
Ø 12 mm 2-pole measuring cell LFE 240  
stainless steel/ PEEK; C=0.1, -5 ... +80 °C

PROFESSIONAL



**GLMU 200 MP-RWP\*)**  
Art. no. 607818  
Ø 12 mm 2-pole measuring cell LFE 220  
stainless steel/ PEEK; C=0.1; -10 ... +100 °C

**GLMU 200 MP-LTG**

Measuring transducer with 2-pin electrode

**General:**

2-pole measuring cells,  
suitable for use in organic substances  
(alcohol, benzine, diesel)  
Usage range up to 1000 µS/cm  
2 Measuring ranges:  
0.1 µS/cm ... 2000 µS/cm



**GLMU 200 MP-LTG**  
Art. no. 607641  
Ø 12 mm 2-pole measuring cell LFE 210  
Platinum glass; C=1.0

\*) Attention:  
A special cable is supplied with the professional version.  
The measuring cell can be unscrewed locally without having to change the wiring!

## CONDUCTIVITY MEASURING TRANSDUCER

General:			
Cheap conductivity measurement in drinking water, sea water, process water and wastewater, operational.			
Specifications:	GLMU 400 MP	GLMU 200 MP	GLMU 200 MP-RW
<b>Measuring ranges: (customer-selectable)</b>			
<b>Conductivity:</b>	0.0 ... 200.0 µS/cm 0 ... 2000 µS/cm 0.00 ... 20.00 mS/cm 0.0 ... 200.0 mS/cm 0 ... 500 mS/cm	0.0 ... 200.0 µS/cm 0 ... 2000 µS/cm 0.00 ... 20.00 mS/cm 0.0 ... 200.0 mS/cm	0.0 ... 200.0 µS/cm 0.00 ... 20.00 µS/cm
<b>Specific resistance:</b>	0.0 ... 200.0 kOhm*cm 0.00 ... 20.00 kOhm*cm 1 ... 5000 Ohm*cm 1.0 ... 500.0 Ohm*cm 1.00 ... 50.00 Ohm*cm	5.0 ... 100.0 kOhm*cm 0.50 ... 10.00 kOhm*cm 50 ... 1000 Ohm*cm 5.0 ... 100.0 Ohm*cm	0 ... 200 kOhm*cm 0 ... 2000 kOhm*cm
<b>TDS:</b>	0.0 ... 200.0 mg/l 0 ... 500.0 mg/l. 0 ... 2000 mg/l 0.0 ... 20.0 g/l. 0 ... 200 g/l	0.0 ... 200.0 mg/l 0 ... 2000 mg/l	0.0 ... 200.0 mg/l 0.00 ... 20.00 mg/l
<b>Salinity:</b>	0.0 ... 70.0 (PSU)	0.0 ... 70.0 (PSU)	
<b>Temperature measurement:</b>	-5.0 ... +140.0 °C (device) - permissible temperature of the measuring cell note!		
<b>Measuring cell:</b>	4-pole measuring cell	2-pole measuring cell	2-pole measuring cell
<b>Standard measuring cell:</b>	conductivity measuring cell with integrated temperature sensor. Cell constant determined from the factory and preset.		
<b>Accuracy: (at nominal temperature = 25 °C)</b>			
<b>Conductivity:</b>	0.5 % of m.v. ± 0.3 % FS (-RW: ±1 % of m.v. ±0.3 % FS)		
<b>Temperature measurement:</b>	±0.2 °C ±1 digit		
<b>Cells connection:</b>	7-pin DIN socket		
<b>Cell constant:</b>	K = 0.30 ... 1.20, adjustable (-RW: 0.03 ... 0.12)		
<b>Temperature compensation: (customer-selectable)</b>	off: no compensation Lin: linear compensation (of 0.3 ... 3.0 % / K) nLF: non-linear function of natural water according to EN27888 (ISO 7888) in salinity: automatically after IOT		
<b>Display:</b>	approx. 10 mm high, 4-digit LCD display		
<b>Output signal:</b>	4 ... 20 mA (2-wire), standard, 0 ... 1 V or 0 ... 10 V (3-wire), surcharge		
<b>Galvanic isolation:</b>	input electrically isolated		
<b>Power supply:</b>	12 ... 30 V DC (for option 0 ... 10 V: 18 ... 30 V DC)		
<b>Reverse polarity:</b>	50 V continuous		
<b>perm. burden (at 4 ... 20 mA):</b>	$R_N [\Omega] \leq (U_v [V] - 12 V) / 0.02 A$		
<b>perm. load (at 0 ... 10 Volt):</b>	$R_L > 3000 \Omega$		
<b>Working temperature:</b>	-25 ... +50 °C (transmitter), 0 ... +80 °C (measuring cell)		
<b>Storage temperature:</b>	-25 ... +70 °C		
<b>Electrical connection:</b>	Angle connector according to EN 175301-803/A (IP65)		
<b>Housing:</b>	ABS (IP65) except electrode connection sockets		
<b>Dimensions:</b>	82 x 80 x 55 mm, without angle plug and socket		
<b>Warranty:</b>	12 months		
<b>Mounting:</b>	with fixing holes for wall mounting, mounting distance: 70 x 50 mm (W x H)		
<b>Scope of supply:</b>	Device, measuring cell, manual		

Options:
<b>AV010:</b> Output signal 0 ... 10 V
<b>AV01:</b> Output signal 0 ... 1 V
<b>KL=...:</b> longer measuring cell cable (recommended max. 5 m)
<b>M12:</b> M12 connector, 4-pin

Accessories and spare parts:
<b>LFE 202</b> Art. no. 604344 2-pole spare measuring cell (for GLMU 200 MP-TR)
<b>LFE 202-PG</b> Art. no. 603594 2-pole spare measuring cell (for GLMU 200 MP-TR-PG)
<b>LFE 230</b> Art. no. 607825 2-pole spare measuring cell (for GLMU 200 MP-TRP)
<b>LFE 400</b> Art. no. 604635 4-pole spare measuring cell (for GLMU 400 MP)
<b>LFE 400-PG</b> Art. no. 603565 4-pole spare measuring cell (for GLMU 400 MP-PG)

<b>LFE 430</b> Art. no. 607827 4-pole spare measuring cell (for GLMU 400 MP-SWP)
<b>LFE 240</b> Art. no. 607828 2-pole spare measuring cell (for GLMU 200 MP-RW)
<b>LFE 220</b> Art. no. 607829 2-pole spare measuring cell (for GLMU 200 MP-RW-RWP)
<b>LFE 210</b> Art. no. 606991 2-pole spare measuring cell (for GLMU 200 MP-LTG)
<b>PG 13.5</b> Art. no. 603205 Plug on thread adapter for pressureless use, for electrodes with 12 mm shank diameter
<b>GWA1Z</b> Art. no. 602914 Thread adapter PG13.5 to G1", plastics
<b>GKL 100</b> Art. no. 601396 Conductivity control solution 100 ml bottle with 1413 µS/cm, according to DIN EN 27888
<b>GKL 101</b> Art. no. 601398 Conductivity control solution (250 ml bottle with 84 µS/cm)

<b>GKL 102</b> Art. no. 601400 Conductivity control solution (100 ml bottle containing 50 mS/cm)
<b>VKMU-M12</b> Art. no. 609306 Connection cable, 5 m long
<b>Universal measuring transducers for measuring cells of your choice:</b>

<b>GLMU 400 MP-UNI-AV010</b> Art. no. 608006
<b>GLMU 400 MP-UNI-AV01</b> Art. no. 608053
<b>GLMU 400 MP-UNI-A1</b> Art. no. 608052
Transmitter without measuring cell, suitable for 2- and 4-pole measuring cells to create your own conductivity measuring system with special measuring cells.
<b>Different standard systems:</b>
• Area selection of cell constant 0.01; 0.1; 1.0; 10, for example, 1.0 corresponds to 0.300 ... 1.200, 0.1 corresponds to 0.0300 ... 0.1200
• Depending on this measuring range selection without limitations (5 regions)
• Selection of temperature input Pt1000 or NTC10 k
Note: The measuring accuracy of the overall system strongly from the measuring cell used and the dependent on the area of application

Option:
<b>M12:</b> M12 connection socket, 8-pole, e.g. for connecting cable A SK8M



- HIGHLIGHTS:**
- For the installation of up to 3 electrochemical transducers with an installation length of 120 mm and PG 13,5 process connection
  - Side connections with G1/2 thread
  - Flow direction reversible by reinserting the filling tube

<b>DFG70</b> Art. no. 104095 Flow-Thru Vessel
---

General:
The flow vessel DFG70 is used for the installation of electrochemical transducers (e.g. pH and redox electrodes, glass conductivity sensors, compensation thermometers etc.) with PG13, 5-screw-in thread and an installation length of 120 mm. It protects the built-in sensors from breakage and ensures a correct flow of the sensor to prevent measurement errors. Up to 3 transducers can be installed. Unneeded openings are sealed with sealing plugs (2 pieces included). The flow vessel is mounted inline or in a bypass.

Specifications:	
<b>Container:</b>	PC Polycarbonate, crystal clear, color less, 250 ml
<b>Connector block:</b>	PVC-U with mounting holes for 6 mm screw
<b>O-Ring seals:</b>	EPDM
<b>Storage vessel hose connection:</b>	PP polypropylene, outside/inside diameter 6/4 mm
<b>Working temperature:</b>	0 ... 60 °C
<b>Operating pressure:</b>	6 bar at 20°C; 0.2 bar at 60°C
<b>Line connection:</b>	2 x female G1/2 thread, sidewise
<b>Sensor connection:</b>	3 x female PG 13.5 thread, topwise (2 with sealing plugs)