

JUMO GmbH & Co. KG

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JUMO Instrument Co. Ltd.

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JUMO Process Control, Inc.

6733 Myers Road
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JUMO tecLine CR-GT

Conductive 2-Electrode Conductivity Sensor Industrial Version with graphite electrodes

Series 202925 (former 2 EL6... Series)

- 2-electrode system
- cell constant $K = 1.0, 3.0$ or 10.0
- for ranges up to 200 mS/cm
- different process connections enable optimal adaption to process conditions

Brief description

Conductivity sensors are used in conjunction with conductivity transmitters to determine the electrolytic conductivity of liquids.

JUMO 202925 Series conductivity sensors can be employed in areas such as:

- $K = 1.0/3.0$
media separation, drinking water purification, wastewater checks/treatment
- $K = 10.0$
wastewater checks/treatment, concentrate monitoring, domestic water treatment

The versions $K = 3.0$ and $K = 10.0$ are discontinued types and are only recommended for existing plants that need spare-parts.

When conductivity measurements are required in ranges above 10 mS/cm , we recommend use of the state-of-the-art 4-pole measuring technique or inductive conductivity measurement technology.

Principle of operation

202925 Series conductivity cells are 2-electrode conductivity sensors. An a.c. voltage is applied through the transmitter. The current flowing through the liquid and the electrodes is determined by the conductivity of the liquid.



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Technical data

Cell constant ^a	K = 1.0 or K = 3.0 or K = 10.0
Typical measuring ranges ^b	10 µS/cm – 15 mS/cm (for K = 1.0) 0,1 – 30 mS/cm or 200 mS/cm (for K = 3.0 or 10.0)
Temperature compensation	with Pt100 or Pt1000
Process connection	standard: G 3/4A optional: G 1A oder NPT3/4-14 or taper connection DIN 11851 - DN 25 (milk cone)
Body material	PVDF for K = 1.0 and K = 3.0 PP for K = 10.0
Cell material	graphite/PES
Maximaler pressure	Cell constant K = 1.0: 16 bar at 25 °C or 9 bar at 60 °C; at 130 °C max. 1 bar Cell constant K = 3.0: 8 bar at 25 °C or 1 bar at 130 °C Cell constant K = 10.0: 6 bar at 25 °C or 1 bar at 80 °C
Maximale temperature	PVDF 130 °C PP 80 °C
Electrical connection	angled connector (Hirschmann connector) to DIN 43650, protected to IP65, 10 m fixed cable 10 m, other cable lengths on request

^a Depending on the production conditions, the cell constant can deviate by ± 10 % from the nominal value. This deviation can be compensated at the transmitter.

^b The measuring ranges also depend on the transmitter used.

When used for wider ranges than the typical ones, measurement errors caused by polarization may occur.

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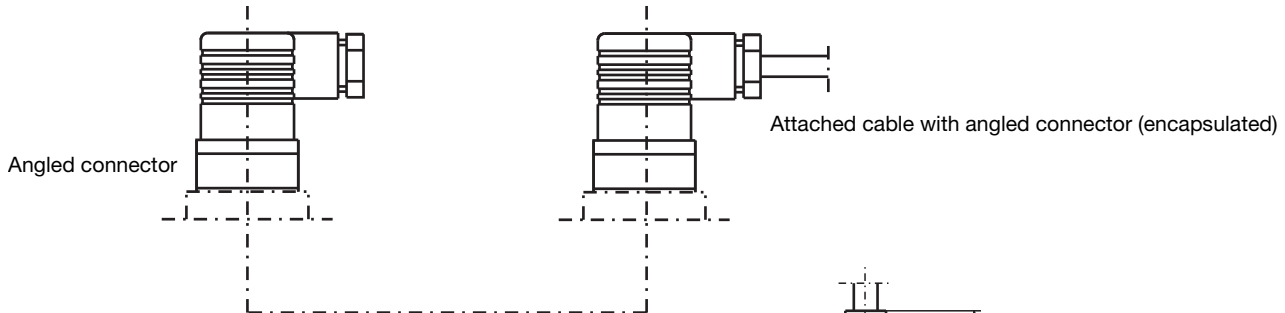
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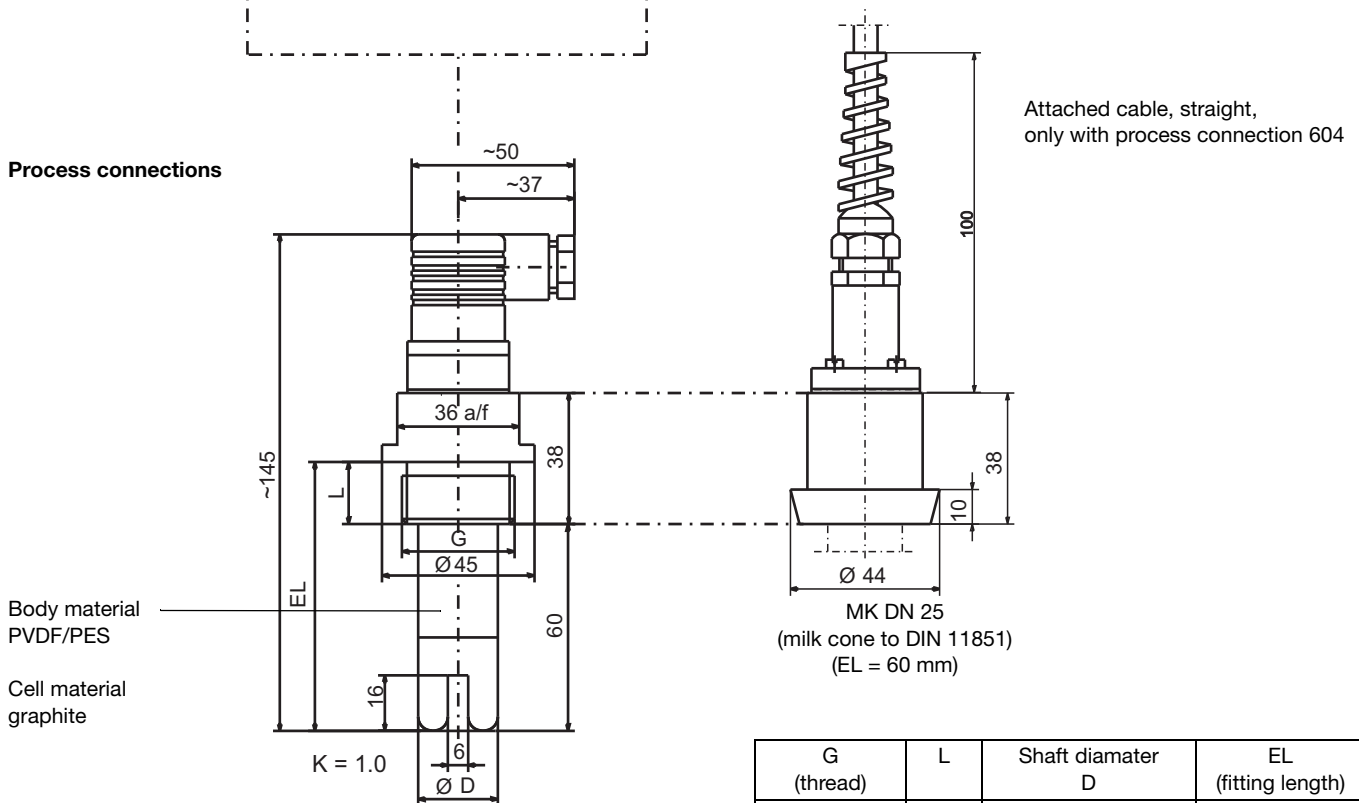


Dimensions/overview of types

Electrical connections



Process connections



Body material
PVDF/PES

Cell material
graphite

MK DN 25
(milk cone to DIN 11851)
(EL = 60 mm)

^a with K = 10.0 shaft diameter is 30 mm

Body material
PVDF/PES

Cell material
graphite

Body material
PP

Cell material
graphite

K = 3.0

K = 10.0

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Electrical connection

Connection for	Connector	Attached cable
Outer electrode		white
Inner electrode	2	brown
Temperature compensation (option)	1 3	yellow green

Order details

(1) Basic type

202925 JUMO tecLine CR-GT - Conductive 2-Electrode Conductivity Sensor with Graphite Electrodes

(2) Cell constant

0100	K = 1.0 (range 10 µS/cm – 15 mS/cm)
0300	K = 3.0 (range 0.1 mS/cm – 30 mS/cm)
1000	K = 10.0 (range 0.1 mS/cm – 200 mS/cm)

(3) Temperature sensor

0000	none
1003	Pt100
1005	Pt1000

(4) Process connection

105	thread G 3/4A
106	thread G 1A
145	3/4-14 NPT
604	taper connection DIN 11851 - DN 25 (milk cone)

(5) Electrical connection

37	angled connector to DIN 43650 (Hirschmann connector)
17	attached cable connection, cable length 10 m

(6) Body material

87	PP
88	PVDF (standard)

(7) Cell material

84	graphite (standard)
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x = standard
 o = optional
 - = not available

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Order code							
Order example	202925	/	0100	-	1003	-	105 - 37 - 88 - 84

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Stock items

Type	Brief description	Part no.
202925/0100-1003-105-37-88-84	K = 1.0/Pt100/G 3/4A	00300200
202925/0100-0000-105-37-88-84	K = 1.0/G 3/4A	00300201
202925/0100-1003-106-37-88-84	K = 1.0/Pt100/G 1A	00089385
202925/1000-1003-106-37-87-84	K = 10.0/Pt100/G 1A	00305206

Non-stock-items

Type	Brief description	Part no.
202925/0300-1003-105-37-88-84	K = 3.0/Pt100/G 3/4A	00089381