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**JUMO Process Control, Inc.**  
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# JUMO single/twin redox electrodes

## Brief description

Single/twin redox electrodes consist of a glass or plastic shaft, to the lower end of which a metal pin or metal tip is fused or cemented. With metal electrodes, the redox potential of aqueous media can be determined in conjunction with a reference electrode (data sheet 20.1083). Twin metal electrodes are used to measure the end point in amperometric titrations.

The following active components are available:

- gold: tip for media with a powerful oxidizing action, such as in cyanide detoxification
- platinum: tip for media with a powerful reducing action, such as in chromate reduction
- platinum/gold: pins in twin metal electrodes
- platinum/platinum: pins in twin metal electrodes
- antimony: for determining the pH value in media with a high hydrofluoric acid content (HF)



Type 201082/13 ...

## Technical data

<b>Redox range</b>	Pt tip/Pt pin $\pm 2000$ mV Au tip/Au pin $\pm 2000$ mV Sb pin
<b>Temperature range</b>	Pt tip 0 - 135 °C Au tip 0 - 135 °C Sb pin
<b>Pressure range</b>	with plug cap: unpressurized operation with Pg 13.5 screw cap: 6 bar/25 °C, 1 bar/80 °C
<b>Terminal head</b>	PPO
<b>Process connection</b>	plug cap without thread or Pg 13.5 screw cap
<b>Washer</b>	PSU
<b>Seal</b>	FPM70
<b>Shaft material</b>	glass (DIN 19 263)
<b>Fitting length</b>	120 mm (standard) other fitting lengths on request

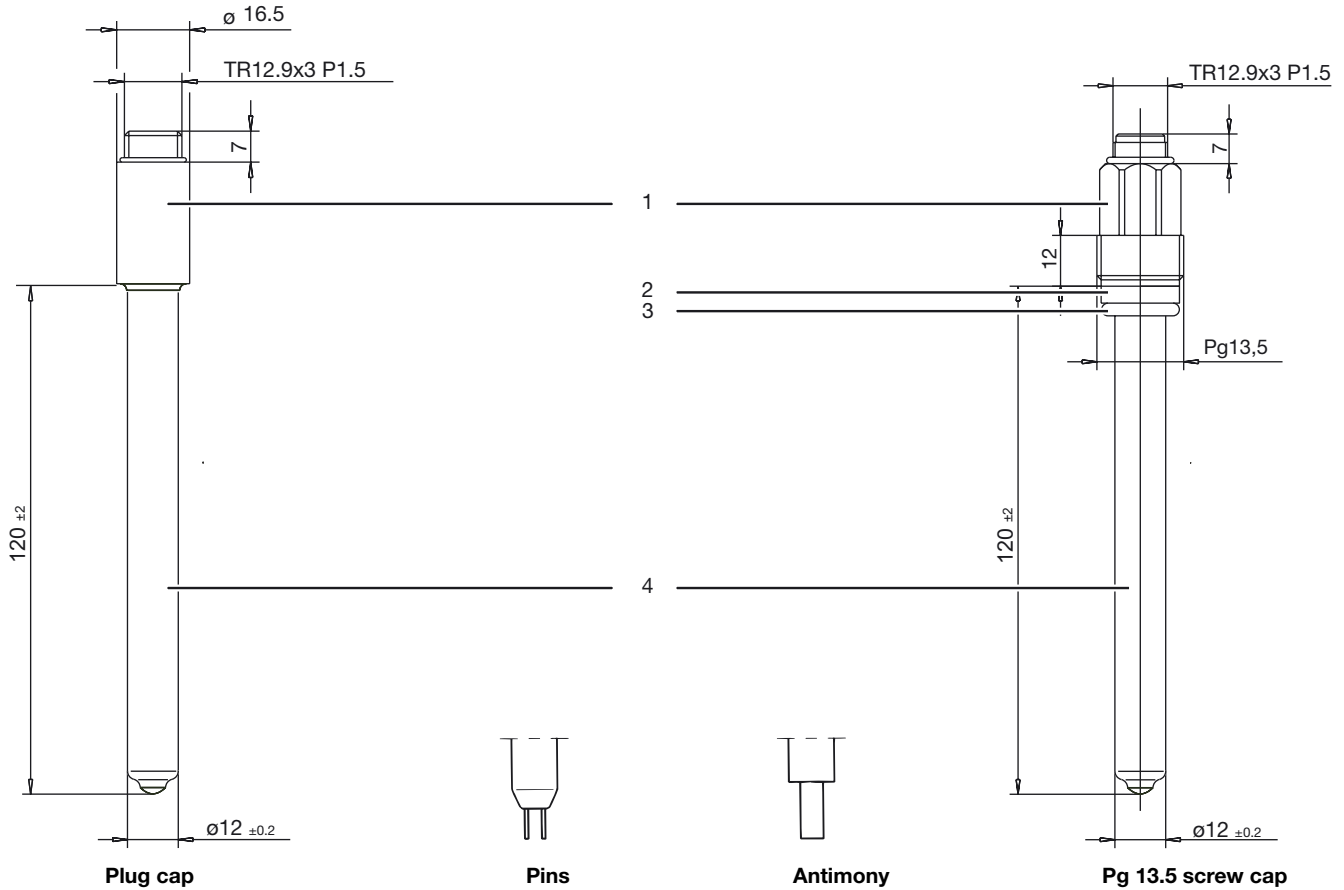
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## Dimensions



- 1 Plug cap without thread or Pg 13.5 screw cap
- 2 Washer
- 3 Seal
- 4 Shaft material

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## Order details

(1) **Basic type**  
 201082 JUMO single/twin redox electrodes

(2) **Basic type extension**

- 12 antimony electrode for measuring the pH value
- 13 metal redox electrode
- 14 twin metal redox electrode

(3) **Shaft material**

- 85 glass
- 89 plastic

(4) **Active component**

- 22 platinum tip/redox range ±2000 mV/-5 to +135°C
- 23 platinum/platinum pin/redox range ±2000 mV/-5 to +135°C
- 24 platinum/gold pin/redox range ±2000 mV/-5 to +135°C
- 27 antimony/pH 0 - 10/fluoride concentration > 1000 mg HF/l
- 32 gold tip/redox range ±2000 mV/-5 to +135°C

(5) **Connection**

- 21 Plug cap
- 22 Pg 13.5 screw cap

(6) **Fitting length<sup>a</sup>**

- 120 120 mm (standard)

x = as standard  
 o = option

<sup>a</sup> Other fitting lengths on request.

Order code	(1)	/	(2)	-	(3)	-	(4)	-	(5)	-	(6)
Order example	201082	/	13	-	89	-	22	-	22	-	120

**Note:**

The order code is a type designation, not a modular system. If possible, choose items listed under "stock versions" or "production versions" for your orders. We will have to technically inspect and approve a free combination of individual key features. In case of doubt, please ask.

## Production versions

(delivery 10 working days after receipt of order)

Type	Brief description	Sales no.
201082/13-89-22-21-120	Metal redox electrode, platinum tip, plug cap, 120 mm	20/00300402
201082/13-89-22-22-120	Metal redox electrode, platinum tip, Pg 13.5 screw cap, 120 mm	20/00300403
201082/12-85-27-22-120	Antimony electrode, Pg 13.5 screw cap, 120 mm	20/00325951