

## rH Metal Electrodes

measurement of redox potentials



The redox metal electrodes can be individually adjusted to the specific task and conditions by a wide-ranged modular configuration system including various types of sensor designs and available materials. Combined with the respective reference system in all fields of industrial process technology, monitoring and laboratory applications universal and precise redox potential measurements are available.

### Features

- utilization as single or double measuring sensor in combination with a reference system
- various sensor designs selectable (calotte, bar, pin)
- sensor material platinum, gold, silver oder antimony
  - gold uneligibile in case of permanent high cyanide concentrations
- silver bar suitable for amalgamation and available with sulfide coating
  - sulfide-coating not applicable in the presence of iron, pH-dependent
- automatic temperature compensation by PT100, PT1000 or NTC possible
- high measuring rate
- high accuracy and long-term stability
- low maintenance required in combination with long service life
- robust, shock-protected design
- installation length variable
- several shaft materials available
- universally applicable at temperatures up to +90 °C (depending on shaft material)
- electrical connection by threaded plug head connector PG 13.5, plug head connector S+ or fixed connection
- appropriate for installation in armatures

## Application fields

- redox measurements in combination with a reference system for industrial applications and laboratories
- operation in waste water treatment plants and swimming pools
- double measuring sensor appropriate for auxiliary current operated redox measurement
- measurements in fluids with high sulfide contents (silver)

## Technical data

Parameter		Description
sensor material		platinum (99.99 Pt)
		gold (99.99 Au)
		silver (99.95 Ag)
		antimony (99.80 Sb)
sensor design	single measurement sensor	platinum calotte
		gold calotte
		platinum pin, Ø 1 mm, length 7 mm
		gold pin, Ø 1 mm, length 7 mm
		silver bar, Ø 4 mm, length 8 mm (sulfide-coated also available)
		antimony bar, Ø 4 mm, length 8 mm
	double measurement sensor	platinum pin / gold pin, Ø 1 mm each, length 10 mm
		platinum pin / platinum pin, Ø 1 mm each, length 10 mm
		platinum calotte / platinum ring
		gold calotte / platinum ring
shaft material		normal-purpose glass
		plastic (PMMA)
shaft diameter		12 mm
installation length		fabrication according to customer request
temperature compensation		PT100
		PT1000
		NTC
electrical connection		threaded plug head connector PG 13.5
		plug head connector S+
		fixed connection
permitted temperature range		normal-purpose glass shaft: 0 to +90 °C
		plastic shaft: 0 to +60 °C
max. permitted pressure		6 bar

## Order options

design measuring system		membrane/diaphragm reference system		electrolyte reference system		electrical connection			design measuring sensor		temperature comp.		shaft properties			installation length		electrolyte refilling	
PT		-		-		PA			E		O		D			12		-	
gold calotte	AU	not applicable	-	not applicable	-	connector	plug head connector S+ <sup>1</sup>	S+	double sensor	D	PT100	P	plastic	Standard, PVC	K	variable, indication in cm	XX	not applicable	-
platinum calotte	PT	-					Fixed connection, X=cable length in m, measuring transducer with...	plug head connector S+, 4-pin <sup>2</sup>	S4	single sensor	E	PT1000		L					
gold pin	AD							no thread	no connector <sup>1</sup>	FX	connector	no connector <sup>2</sup>	AX	NTC	N	normal-purpose glass	D		
platinum pin	PD								BNC connector straight <sup>1</sup>	FXG									
gold calotte / platinum ring	AP								BNC connector angled <sup>1</sup>	FXB									
platinum calotte / platinum ring	PC								DIN connector <sup>1</sup>	FXD									
gold pin / platinum pin	PA								threaded plug head connector PG 13.5 <sup>1</sup>	PA									
silver bar	AG								threaded plug head connector PG 13.5, 4-pin <sup>2</sup>	C4									
silver bar, sulfide coated	AGS								no connector <sup>1</sup>	EX									
antimony bar	SB								no connector <sup>2</sup>	EAX									
						thread PG 13:5			BNC connector straight <sup>1</sup>	EXG								none	O
		BNC connector angled <sup>1</sup>	EXB																
		DIN connector <sup>1</sup>	EXD																

<sup>1</sup>electrode without automatic temperature compensation

<sup>2</sup>electrode with automatic temperature compensation

Not all options are combinable. We will be pleased to assist you by selecting the suitable options that meet your requirements. In addition to the displayed order options special customized designs are certainly possible. Please contact us!

The necessary accessories such as connecting cable or armatures can be found in the respective technical data sheets.

Specifications are subject to modifications.