

JUMO GmbH & Co. KG
 Delivery address: Mackenrodtstraße 14
 36039 Fulda, Germany
 Postal address: 36035 Fulda, Germany
 Phone: +49 661 6003-0
 Fax: +49 661 6003-607
 E-mail: mail@jumo.net
 Internet: www.jumo.net

JUMO Instrument Co. Ltd.
 JUMO House
 Temple Bank, Riverway
 Harlow, Essex CM20 2DY, UK
 Phone: +44 1279 635533
 Fax: +44 1279 635262
 E-mail: sales@jumo.co.uk
 Internet: www.jumo.co.uk

JUMO Process Control, Inc.
 8 Technology Boulevard
 Canastota, NY 13032, USA
 Phone: 315-697-5866
 1-800-554-JUMO
 Fax: 315-697-5867
 E-mail: info.us@jumo.net
 Internet: www.jumousa.com



JUMO tecLine H2O2 JUMO tecLine PAA Sensor for hydrogen peroxide and peracetic acid

Type 202636/55
Type 202636/60

- Measures the concentration of peracetic acid and hydrogen peroxide in the mg range
- 2-electrode principle
- Membrane impervious to chemicals and surfactants
- Integrated temperature compensation
- Easy calibration

Brief description

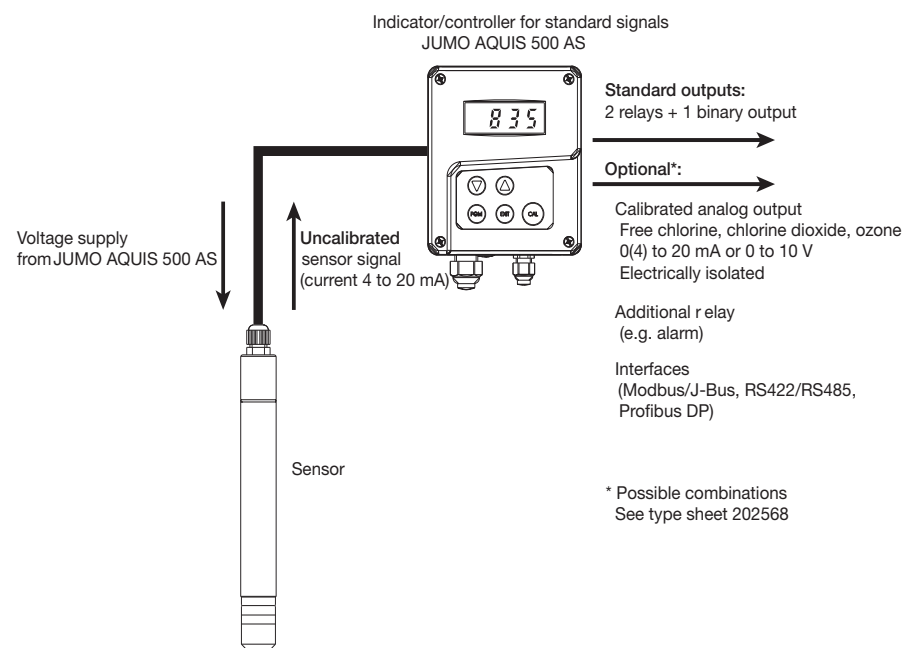
These membrane-covered, amperometric sensors are used to measure the concentration of hydrogen peroxide and peracetic acid in aqueous solutions.

Typical areas of application include electroplating plants, pharmaceuticals, the food and beverage industry, dairies, swimming pools and the chemical industry.

The sensors are not suitable for detecting the absence of hydrogen peroxide and peracetic acid. The integrated electronics of the sensors provides a temperature-compensated current signal of 4 to 20mA. A downstream device (indicator, controller, recorder, PLC, etc.) is used for calibration.

The sensors can be connected directly to a suitable indicator and controller. Two indicators / controllers, the JUMO dTRANS AS 02 (type sheet 202553) and the JUMO AQUIS 500 AS (type sheet 202568) are especially suitable for combining with these sensors. They provide the voltage required for the power supply of the sensor and make for an easy way to calibrate the measuring system.

Function



Type 202636/55- ...

Note

All types

- This measurement is only possible in a suitable flow-through fitting (see accessories).
- For proper operation, the incident flow of the process medium on the sensor must be at least 15 cm / s (0.5l / min). The minimum inflow can be ensured with JUMO flow monitoring (see accessories), which consists of a flow monitor and the matching fitting.
- A test set is required for calibration to determine the content of hydrogen peroxide or peracetic acid. Various forms of manganometric or iodometric titration, etc. can be used as methods of determination.
- To ensure fault-free sensor functionality, only one disinfectant should be used.
- For further information about how to set up and use amperometric sensors, refer to our brochure "Information on Amperometric Measurement of Hydrogen Peroxide and Peracetic Acid in Water".

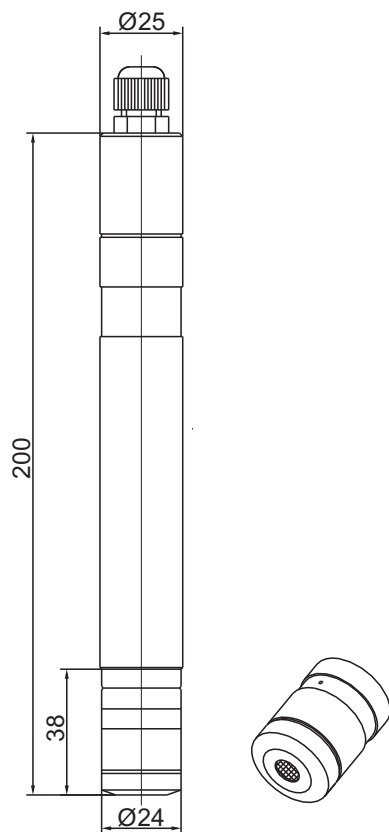


Technical data

Analyte	Hydrogen peroxide (H₂O₂) or peracetic acid (PAA)
Membrane type	Silicone/rubber membrane
Measuring cable connection	2-pin terminal, polyamide PG7 screw connection; conductor cross section 2x 0.25 mm ² , cable diameter approx. 4 mm
Voltage supply	U _B 12 to 30V DC (electrical isolation recommended)
Electromagnetic compatibility	According to EN 61326-1 Interference emission: Class B Interference immunity: To industrial requirements
Output signal	4 to 20mA
Burden	$\leq \frac{U_B - 7.5 \text{ V}}{0.02 \text{ A}}$
Settling time Hydrogen peroxide Peracetic acid	3 h 1 h
Incident flow velocity	approx. 15cm / s If the sensor is installed in a JUMO flow-through fitting 00392611, this is equivalent to a flow rate of about 30l / h.
Measuring ranges (other ranges on request)	0 to 500 / 0 to 10,000 / 0 to 20,000 / 0 to 50,000 mg / l (ppm)
Measuring accuracy	± 2% of the displayed value
Response time t₉₀ Hydrogen peroxide Peracetic acid	About 5 ... 10 min approx. 3 min
Operating temperatures / temperature compensation Hydrogen peroxide Peracetic acid	+5 to +45 °C +5 to +45 °C
Zero point adjustment	Not required
pH value operating range Hydrogen peroxide Peracetic acid	2 to 11 pH 1 to 7 pH
Disruptive substances / cross sensitivities Hydrogen peroxide Peracetic acid	Chlorine is disruptive, peracetic acid is disruptive, ozone is disruptive, sulfides and phenols will destroy the measuring system Chlorine is disruptive, ozone is disruptive, hydrogen peroxide is not disruptive
Pressure resistance	p _{abs} max. 2 bar p _{rel} max. 1 bar No pressure fluctuations are admissible when operating under pressure. We recommend unpressurized operation (atmospheric pressure).
Material	Shaft, cover, cap: PVC, stainless steel, silicone rubber, PA
Dimensions	Diameter: 25 mm, length: 220 mm
Weight	approx 125 g
Maintenance	Check the measurement signal: regularly, at least once a week Replace the membrane cap: once a year (subject to water quality) Change the electrolyte: every 3 to 6 months
Storage	Sensor: Frost-free, dry and without electrolyte, can be stored for an unlimited time at +5 to +45 °C Membrane cap: Used membrane caps cannot be stored! Electrolyte: In the original bottle and protected against sunlight at +5 to +25 °C

Dimensions

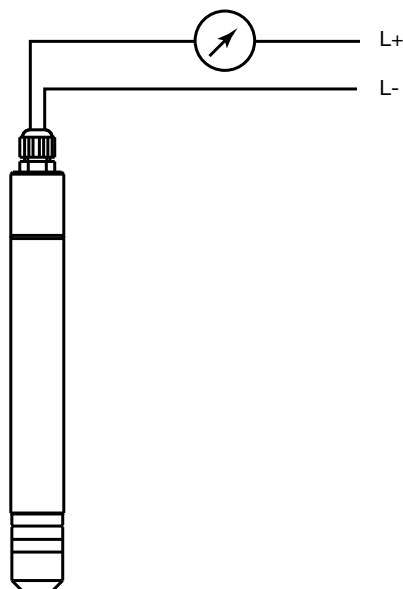
Type 202636/55
 Type 202636/60



Scope of delivery

Two-wire sensor including membrane cap, electrolyte and special abrasive paper for cathode cleaning.
 In addition, for devices with measuring range 0 to 20,000 mg/l and 0 to 50,000 mg/l: device holder with forceps.

Electrical connection



Connection		Screw terminals
Voltage supply DC 12 to 30V	+ -	1 L+ 2 L-
Output 4 to 20mA, two wires Impressed current 4 to 20mA in voltage supply	+ -	1 L+ 2 L-

Accessories

Flow-through fitting for sensors according to type sheets 202630, 202631, 202634, 202636

Part no.: 00392611

Materials

Case: PVC

Measuring vessel: PC

Admissible temperature / pressure

0 to +50 °C; at 1 bar

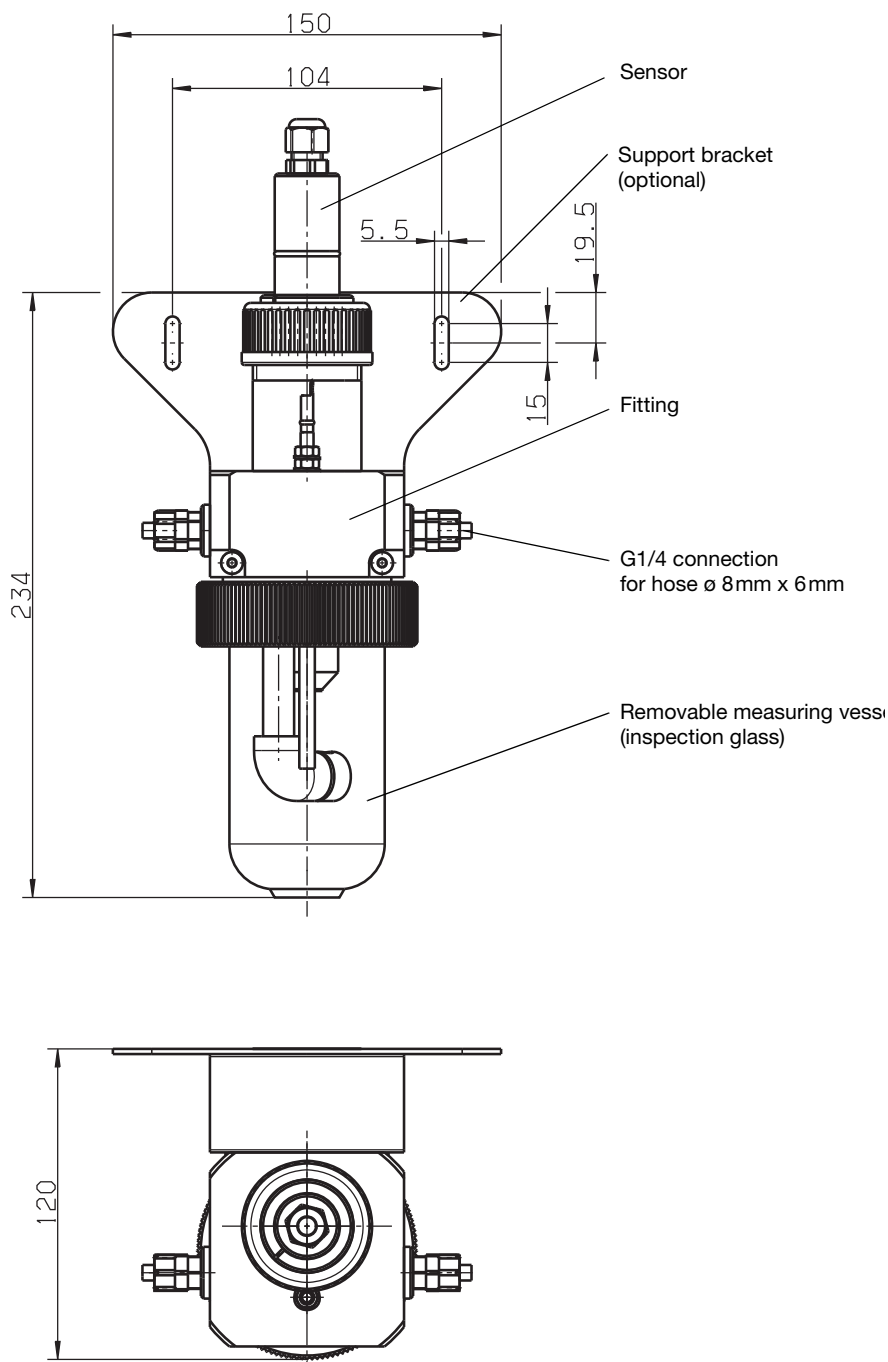
Connection

Hose screw connection G 1/4

Mounting

Optional: stainless steel support bracket,
Mat. no. 1.4571

Part no.: 004557066



Flow monitoring device

Consisting of:

Flow monitor

Part no.: 00396471

and

Fitting for flow monitor

Part no.: 00396470

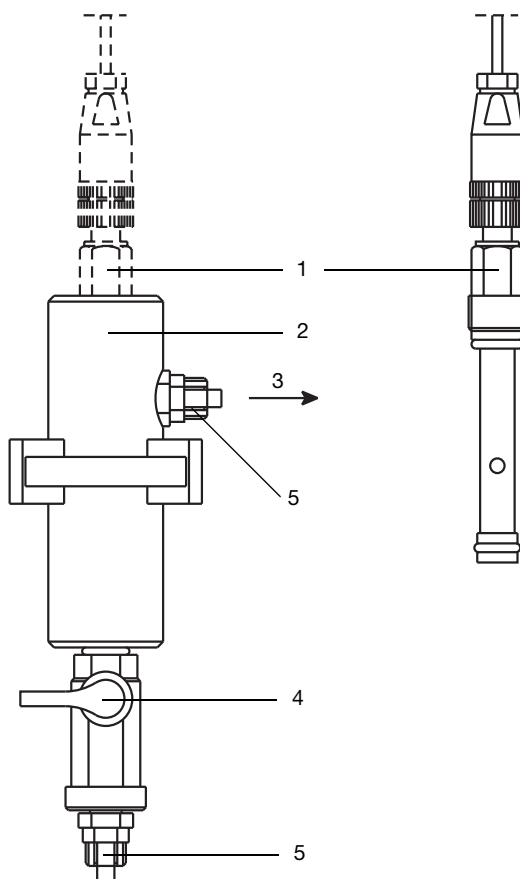
Function

For proper operation, the incident flow of the process medium on the sensors must be at least 15cm / s.

Below this minimum incident flow velocity, the sensor will indicate values that are too low. This could result in dangerous overdosing or underdosing in a connected control system. Above the minimum incident flow velocity, the measurement signal is only slightly affected by the incident flow velocity.

The flow monitoring device can be used to monitor the minimum incident flow velocity of 15cm / s.

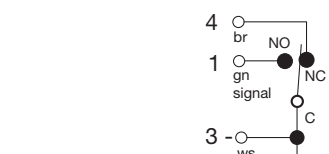
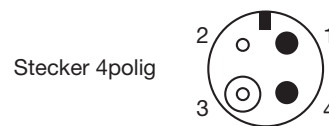
The flow monitoring device consists of a flow monitor and the corresponding fitting. The flow monitoring device is installed in series with the flow-through fitting. If the minimum flow speed is not reached or is exceeded, a contact in the terminal head of the flow monitor switches. The contact can be used, for example, to control a binary input of the indicator/controller for JUMO AQUIS 500 AS standard signals. If the incident flow is too low, the JUMO AQUIS 500 AS is placed in "HOLD". This can prevent imprecise dosing.



- 1 Flow monitor part no.: 00396471
- 2 Fitting for flow monitor part no.: 00396470
- 3 Flow direction
- 4 Shut-off valve
- 5 G1/4 connection (for hose diameter 8mm x 6mm)

Electrical connection

of the flow monitor



Function

Contact (3 + 4) of the flow monitor is opened at a flow velocity of 15cm / s or greater.

Options

JUMO AQUIS 500 AS

Indicator/controller for standard signals and temperature
 (for detailed information, see type sheet 202568)



JUMO dTRANS AS 02

Transmitter/controller for standard signals and temperature
 (for detailed information, see type sheet 202553)





Order details

	(1) Basic type
202636	Sensor
	(2) Basic type extension
55	for peracetic acid (PAA)
60	for hydrogen peroxide (H ₂ O ₂)
	(3) Measuring range
60	0 to 500 mg / l (ppm)
80	0 to 10,000 mg / l (ppm)
81	0 to 20,000 mg / l (ppm)
85	0 to 50,000 mg / l (ppm)

Order code	(1)	(2)	(3)
Order example	202636	/ 60	- 80

Note:
 The type code is an order detail, not a modular system.
 If possible, choose items listed under "stock 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.

Stock versions (delivery 3 working days after receipt of order)

Type	Part no.
Sensor for hydrogen peroxide, type 202636/60-80	00409343

Accessories (delivery 10 working days after receipt of order)

Designation	Part no.
Flow-through fitting for sensors according to type sheets 202630, 202631, 202634 and 202636	00392611
Support bracket for flow-through fitting	00455706
Flow monitor	00396471
Fitting for flow monitor	00396470
Special electrolyte for 202636/55	00440821
Special electrolyte for 202636/60	00438126
Spare parts set for 202636/55 and 202636/60, measuring range 0 to 500 mg/l ¹ (1x membrane cap, fine abrasive paper)	00409344
Spare parts set for 202636/55 and 202636/60, measuring range 0 to 10,000 mg/l ¹ (1x membrane cap, fine abrasive paper)	00438125
Spare parts set for 202636/55 and 202636/60, measuring range 0 to 20,000 mg/l and 0 to 50,000 mg/l ¹ (1x membrane cap, fine abrasive paper, device holder)	00572408
Matching indicator/controller: JUMO AQUIS 500 AS, type: 202568/20-888-888-310-310-23/000 (for other versions see type and price sheet 202568)	00528718
Matching transmitter / controller: JUMO dTRANS AS 02, type: 202553/01-8-01-4-0-00-23/000 (for other versions see type and price sheet 202553)	00550842

¹ **Important:** When ordering spare parts sets for measuring cells, always specify the measuring range!