

Analytical Measurement



pH and Redox Measurement

JUMO ecoLine, JUMO BlackLine pH and redox combination electrodes



Well-proven electrodes with a favorable price/performance ratio

- version with a glass or plastic shaft
- active component for pH: outstanding measurement results, thanks to the tried and tested JUMO U glass, optimized over many years
- active component for redox: rugged platinum tip for reliable measurements and easy sensor cleaning
- reference system: the acrylamide-free JUMO gel is made from a high-viscosity KCl solution

Possible application areas

Drinking water monitoring and treatment, swimming baths, aquariums (also seawater aquariums), greenhouses, lightly contaminated service, process and wastewater, rainwater, pond and surface water

Further information: Data Sheet 20.1005

JUMO tecLine pH, JUMO tecLine Rd pH and redox combination electrodes



High-quality industrial/process electrodes for a wide range of applications

- versions with solid electrolyte, without a diaphragm
- zirconium dioxide, platinum, teflon ring diaphragms
- for measurement in low-ion media
- high-temperature/high-alkaline versions for up to 135°C
- sterilizable and fluoride-resistant versions
- refillable electrodes for low-ion media

Possible application areas

Industrial and municipal as well as general water and wastewater engineering, process measurements, electroplating, final checks, neutralization plant, drinking and well water, boiler feed water, low-temperature applications (–30...+30°C)

Further information: Data Sheet 20.1020

JUMO labLine sensors/single sensors pH- redox- and ion-selective electrode system



High-quality electrodes in typical laboratory versions

- insertion, micro and flat membrane versions
- glass conductivity cells and compensation thermometers
- ammoniac sensors

Possible application areas

Chemical and pharmaceutical laboratories, coolant checking, measurement with hand-held instruments, agricultural and environmental measurement

Further information: Data Sheet 20.1030

JUMO tecLine PRO pH/redox pH and redox combination electrodes



Rugged electrodes with a high level of mechanical and chemical resistance

- integrated temperature sensor
- the stable PVDF body ensures that there is practically no danger of breaking the sensor
- rounded-tip or flat membrane, depending on the application

Possible application areas

Chemical industry, wastewater treatment, purification plant, paper industry

Further information: Data Sheet 20.1020

JUMO Multitrode – the combination sensor



Just one sensor, just one connecting cable

- a combination of pH, redox and temperature sensors all in one stem
- easy handling
- only one Pg13.5 gland connection required in the application setup

Possible application areas

The practical solution for applications where individual sensors can not be used, because of space or handling problems

Further information: Data Sheet 20.1030

pH and Redox Measurement

Connecting cables and buffer solutions for pH, redox and conductivity sensors



Further information: Data Sheet 20.1090

Simulators for pH/redox potential and conductivity



- a simulator can be connected to a transmitter in place of an electrode or conductivity cell
- this facilitates the dry-run commissioning of installations
- for testing connecting cables and investigating faults

Further information: Data Sheet 20.1090

Impedance converter for combination electrodes



This converts the high-impedance signal from the pH electrode into a low-impedance signal

- stabilizes the signal, independent of the electrical supply
- can be retrofitted
- enables the use of longer cables
- can also be supplied for electrodes with SMEK connection

Further information: Data Sheet 20.2995

JUMO dTRANS pH 01 Transmitter/controller for pH or redox potential



This instrument measures and controls (depending on the configuration) the pH value or redox potential of aqueous solutions

- display of pH or mV/ORP and temperature
- switchable from pH to mV/ORP (redox potential)
- simple, guided calibration procedure
- two relays as standard, freely programmable as limit controller or P, PI, PID, PD controller with pulse width or pulse frequency output, or as modulating controller
- two electrically isolated analog outputs 0(4) – 20 mA or 0(2) – 10 V, freely configurable as process value output for pH, redox or temperature, or as continuous controller (option)
- two logic inputs
- simulation of the process value outputs, for dry-run commissioning and fault-finding
- PROFIBUS-DP or RS485/422 serial interface with MOD-Bus/J-Bus protocol (option)
- panel-mounting housing to DIN 43 700, IP 65 enclosure protection at front
- wall-mounting housing with IP67 enclosure protection

Further information: Data Sheet 20.2530

JUMO dTRANS Rd 01 Transmitter/controller for redox potential

This instrument measures and controls the redox potential of aqueous solutions

- display range +/-2000 mV or 0 – 100 %
- 1-point or 2-point calibration ("3-bucket method")
- temperature input can be activated as independent measurement channel
- for further technical description, see dTRANS pH 01

Possible application areas

Industrial and municipal water and wastewater engineering, pharmacy and medicine, chemical industry, semiconductor engineering, plant engineering

Further information: Data Sheet 20.2535

Electrolytic Conductivity

JUMO BlackLine Lf-GT/-EC 2-electrode conductivity cells



Compact conductivity probes with an outstanding price/performance ratio

JUMO BlackLine Lf-GT, graphite electrodes

- cell constant $K = 1.0$ and 3.0 for ranges up to 200 mS/cm
- attached cable or screw-in version with Pg13.5
- 120 mm fitting length, 12 mm diameter
- usable up to 90°C and pressure up to 6 bar
- integrated temperature probe (option)

JUMO BlackLine Lf-EC, electrodes in titanium or stainless steel 1.4571

- cell constants $K = 0.01$, 0.1 and 1.0
- $G \frac{1}{2}$ " screw-in thread with attached cable or $\frac{1}{2}$ " NPT from 40 mm fitting length
- usable up to 100°C and pressure up to 6 bar
- integrated Pt 100 temperature probe
- as immersion version with immersion length up to 1500 mm (option)

Possible application areas

Drinking and surface water monitoring, ion exchangers and reverse osmosis plant, HVAC and refrigerating systems, horticulture, seawater and freshwater aquariums, lightly contaminated industrial process and flushing water

Further information: Data Sheet 20.2922

JUMO tecLine Lf-VA 2-electrode conductivity cells



Rugged versions in stainless steel or titanium, with a wide variety of process connections

- for measuring ranges from $0.05 \mu\text{S/cm}$ to 1 mS/cm
- pharmaceutical version with factory certificate to EN 10 204-3.1 and FDA verification
- high-temperature version up to 200°C and 17 bar

Possible application areas

Pure and high-purity water, pharmaceuticals, chemicals, food technology, chip production, ion exchangers, reverse osmosis plant

Further information: Data Sheet 20.2924

JUMO ecoLine Lf-PVC 2-electrode conductivity cells



Tried and tested versions for industrial use

- measuring ranges: $0 - 1 \text{ mS/cm}$ ($K = 0.1$) or $0.01 - 15 \text{ mS/cm}$ ($K = 1.0$)
- temperature range up to 55°C and pressures up to 6 bar at 20°C
- stainless steel version, $K = 0.1$, with three metallic pin electrodes, graphite version $K = 1.0$
- PVC flow-through fitting can be supplied

Possible application areas

General water engineering, refrigeration and air conditioning systems, drinking and bathing water

Further information: Data Sheet 20.2923

JUMO tecLine Lf-GT 2-electrode conductivity cells



Industrial version with graphite electrodes for measuring ranges up to 200 mS/cm .

- cell constants $K = 1.0$, 3.0 or 10.0
- various process connections provide optimum adaptation to process conditions

Possible application areas

Separating media, drinking water treatment, wastewater checks, concentration monitoring, service water treatment

Further information: Data Sheet 20.2925

Electrolytic Conductivity

JUMO ecoTRANS Lf 01/02

Transmitter/switching device for conductivity



Cell constant K	Measuring range
0.01/cm	0 – 5 µS/cm
0.01/cm	0 – 20 µS/cm
0.1/cm	0 – 200 µS/cm
0.1/cm	0 – 1000 µS/cm
1/cm	0 – 2 mS/cm
1/cm	0 – 20 mS/cm
10/cm	0 – 100 mS/cm
10/cm	0 – 200 mS/cm

The instrument measures the conductivity of liquids

- freely programmable through PC setup program
- electrically isolated process value output (Lf 01) 0/4 – 20 mA or 0/2 – 10 V
- switched output: changeover relay (Lf 02); learning function for switching point
- temperature probe input for compensation (Pt 100/Pt 1000/programmable curve)

Possible application areas

Installations for freshwater monitoring and water treatment, reverse osmosis installations, ion-exchange plant etc.

Further information: Data Sheet 20.2731

JUMO ecoTRANS Lf 03

Transmitter/switching device for conductivity



USP <645>

The instrument measures the conductivity (or resistivity) and temperature of liquids

- display units µS/cm, mS/cm, kOhm x cm, MOhm x cm, µmho/cm, mmho/cm
- measuring ranges 0 – 1 µS/cm to 0 – 200 mS/cm, adjustable in 17 stages
- two parallel process value outputs for conductivity and process temperature 0(4) – 20 mA/0(2) – 10 V; freely programmable
- switching output (relay changeover contact or, alternatively, two open-collector outputs)

Possible application areas

High-purity water and pharmaceutical applications, ion-exchange plant, drinking and service water

Further information: Data Sheet 20.2732

JUMO dTRANS Lf 01

Transmitter/controller for electrolytic conductivity



This instrument measures and controls the conductivity of aqueous solutions

- display of conductivity µS/cm (mS/cm) and temperature
- calibration procedure for the relative cell constant and temperature coefficient of the measuring solution
- measuring ranges from 0 – 0.5 µS/cm to 0 – 200 mS/cm in one instrument
- two relays as standard, freely programmable as limit controller or P, PI, PID, PD controller with pulse width or pulse frequency output, or as modulating controller
- two electrically isolated analog outputs 0(4) – 20 mA/0(2) – 10 V freely configurable as process value output for pH, redox or temperature, or as continuous controller (option)
- two logic inputs
- PROFIBUS-DP or RS 485/422 serial interface with MOD-Bus/J-Bus protocol (option)
- panel-mounting housing to DIN 43700, IP65 enclosure protection at front
- wall-mounting housing with IP67 enclosure protection

Further information: Data Sheet 20.2540

JUMO dTRANS Rw 01

Transmitter/controller for high-purity water

The instrument measures the conductivity (or resistivity) of high-purity water

- temperature compensation as per ASTM D-1125-95
- conforms to the current requirements of USP <645>
- additional linear compensation is possible
- USP contact
- for further technical description, see JUMO dTRANS Lf 01

Possible application areas

Industrial and municipal water, general water and waste-water engineering, pharmacy and medicine, chemical industry, semiconductor engineering

Further information: Data Sheet 20.2545

JUMO CTI-500 Conductivity transmitter with switched contacts



Combined instrument



Remote version

Split version
up to 2000mm
immersion depth
(sensor is shown shortened)

Compact measuring cells in polypropylene (PP) up to 100°C and pressures up to 6 bar

- measuring ranges from 0 – 500 $\mu\text{S}/\text{cm}$ to 0 – 2000 mS/cm
- four ranges and temperature coefficients (switchable)
- concentration measurement of
 - caustic soda NaOH
 - nitric acid HNO_3
 - a freely definable curve (through setup program)
- temperature sensor with a fast response
- temperature compensation
 - linear
 - natural water
 - integrated characteristic (learning function)
- operation
 - through keypad and LC display
 - through setup program
- setup program
 - easy-to-use programming option
 - plant documentation
- two analog process value outputs for conductivity/ concentration and temperature (0/4 – 20 mA or 0/2 – 10 V), electrically isolated
- large selection of process connections available
- integrated dilution control
- electrical connection through M12 connector (option)
- remote version with 10m connecting cable

Possible application areas

General water engineering, HVAC systems, cooling water monitoring (dilution control), flushing baths, inlet and final checks in factory purification plant, drinking water checks.

Further information: Data Sheet 20.2755

Inductive Conductivity

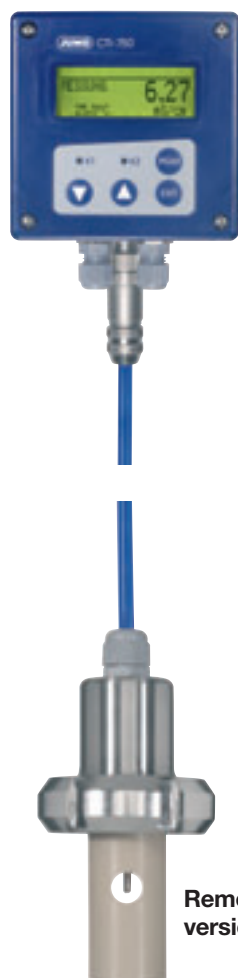
JUMO CTI-750 Conductivity transmitter with switched contacts



Combined instrument



Stainless steel



Remote version



Remote version,
immersion depth
up to 2000 mm
(sensor is shown
shortened here)

Immersion probe
made of PVDF

High-quality, well-established measuring cell in polyether-ether-ketone (PEEK®) or PVDF up to 140°C and 10 bar pressure

- measuring ranges from 0 – 500 µS/cm to 0 – 2000 mS/cm
- four ranges and temperature coefficients (switchable)
- concentration measurement of
 - caustic soda NaOH
 - nitric acid HNO₃
 - a freely definable curve (through setup program)
- temperature sensor with a fast response
- temperature compensation
 - linear
 - natural water
 - integrated characteristic (learning function)
- operation
 - through keypad and LC display
 - through setup program
- setup program
 - easy-to-use programming option
 - plant documentation
- two analog process value outputs for conductivity/ concentration and temperature (0/4 – 20 mA or 0/2 – 10 V), electrically isolated
- large selection of process connections available
- integrated dilution control
- electrical connection through M12 connector (option)
- remote version with 10 m connecting cable

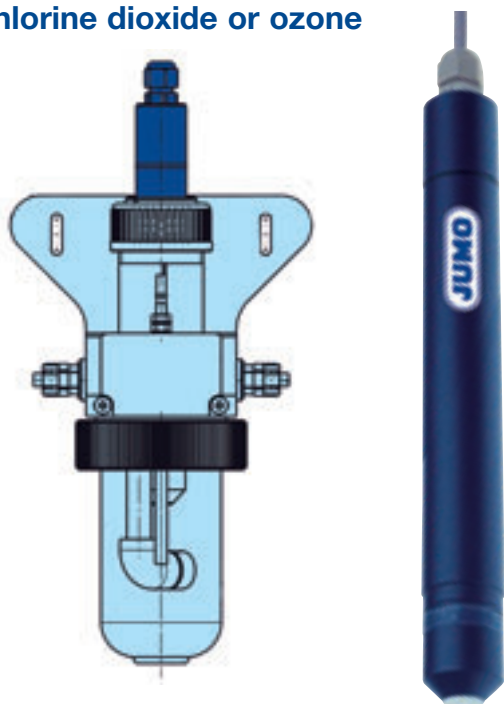
Possible application areas

Food, beverage and pharmaceutical industries, product monitoring (phase separation of product/product mix/water) in the beverage industry, breweries and dairies, control (e.g. phase separation of detergent/flushing water) of cleaning processes, such as in bottle cleaning plant and cleaning of containers, regulation of the concentration of acids and caustic solutions e.g. in electroplating and processing chemistry, use in CIP installations, water and wastewater engineering, e.g. car washing and service water monitoring, dosing of chemicals, leak indication in separated circulation systems, e.g. for heating and cooling

Further information: Typenblatt 20.2756

chlorine, chlorine dioxide, ozone, hydrogen peroxide, peracetic acid measurement

Measuring cells for free chlorine, chlorine dioxide or ozone



Membrane-covered amperometric measuring cells for determining the concentration of free chlorine, chlorine dioxide or ozone

- 2- or 3-electrode principle
- simple calibration
- integrated temperature compensation
- proven measuring system

Possible application areas

Drinking, bathing, service, process and cooling water

Further information: Data Sheet 20.2630

Measuring cells for hydrogen peroxide or peracetic acid



Measuring cell for determining the hydrogen peroxide concentration in aqueous solutions

- measures hydrogen peroxide or peracetic acid concentrations at the milligram level
- membrane is insensitive to chemicals and tensides
- integrated temperature compensation
- simple calibration
- 2-electrode principle

Possible application areas

Electroplating plant, pharmaceutical, food and beverage industries, dairies, swimming baths and the chemicals industry

Further information: Data Sheet 20.2630

JUMO dTRANS Az 01 Indicator/controller for analytical measurement



Indicator/controller for the measuring cells on this brochure page

- input: standard 0/4 – 20 mA signal and Pt 100/Pt 1000 temperature sensor
- supply output for 2-wire transmitter (option)
- for technical features, see also JUMO dTRANS pH 01 or JUMO dTRANS Lf 01

Possible application areas

Monitoring of disinfectant concentration in water circulation systems, in combination with the measuring cells according to the data sheet: 20.2630

Further information: Data Sheet 20.2550

Oxygen Measurement

JUMO dTRANS O2 01

Two-wire transmitter for dissolved oxygen (DO)



Two-wire transmitter with optional terminal box or operating unit for measuring dissolved oxygen in aqueous solutions

- measuring dissolved oxygen in aqueous solutions
- simple, reliable servicing through chemical-free module replacement
- reliable 1-point calibration
- 2-wire transmitter (for the basic and standard versions)
- electrical isolation of the signal being measured (DO) and the output signal (mA)
- easily incorporated into an existing system (e.g. PLC)
- maximum version as a stand-alone solution with switching contacts
- compensation for temperature, air pressure and salinity
- output of the measurement point temperature
- setup program for user-friendly configuration and documentation of the measurement points
- background lighting, i.e. easy to read, even in the dark (with maximum version)
- numerous accessories

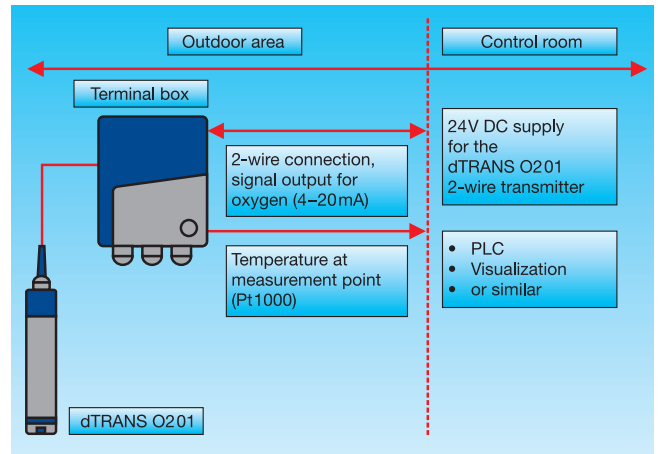
Available accessories

- setup software
- PC interface cable
- replacement sensor modules (set)
- fittings

Possible application areas

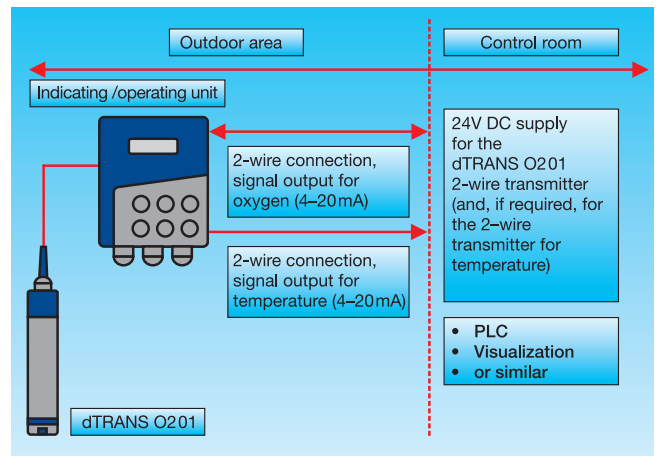
Communal and industrial wastewater treatment plants, drinking water monitoring, water protection, fish farming (seawater and freshwater), processing plant

Further information: Data Sheet 20.2610



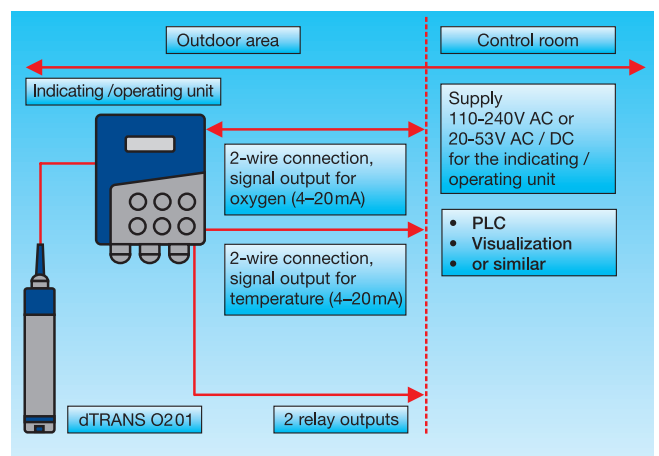
Basic version

- in the basic version, the parameterization of the transmitter is made entirely through the PC setup program



Standard version

- in the standard version, the parameterization of the transmitter is made through the keyboard and the text-guided operation in the graphics display or the setup program



Maximum version

- the integrated power supply enables implementation of a stand-alone solution with two additional switched outputs

JUMO AQUIS 500 Transmitter/Controller Series for Liquid Analysis



Transmitter/controller series in on-site housing

- operation
 - plain-text operation
 - multi-lingual: German, English, French; additional languages can be loaded
 - unambiguous key assignment
- graphics display with background lighting
- menu-guided sensor calibration
- full controller functionality (with outputs fitted)
- surface-mounting housing, IP 67 protection
- cabinet mounting, IP 65 protection
- plug-in terminal blocks for easy installation
- electrode monitoring
- complete family of instruments
- maximum of two relays (changeover contacts, 3A 250V AC)
- PID action (can be activated)
- maximum of two continuous outputs (0/4 – 20mA / 0 – 10V)

Instrument versions

JUMO AQUIS 500 pH

For the measurement of pH, redox potential and ammonia concentration

- Asymmetrical/symmetrical high-impedance input
- Single-point, 2-point and 3-point calibration
- ISFET electrodes (glass-free measurement) can be connected

JUMO AQUIS 500 CR

For the measurement of electrolytic conductivity or specific resistance, using 2- and 4-electrode sensors

- integrated temperature compensation (linear, natural water, ASTM)
- USP function (pharmaceutical water)
- High-purity water

JUMO AQUIS 500 AS

For the measurement of disinfectants (such as free chlorine, chlorine dioxide, ozone) and dissolved oxygen

- Flow monitoring can be directly connected

JUMO AQUIS 500 Ci

For the measurement of electrolytic conductivity or concentration in liquid media

(inductive measurement principle, especially suited to higher conductivities and media that form deposits)

- Stored concentration curves, e.g. for
 - caustic soda
 - nitric acid

Mounting variants

Wall mounting



Cabinet mounting



Possible application areas

Drinking water monitoring and treatment, process measurements, electroplating, final checks, neutralization plants, industrial/municipal and general water and wastewater engineering, service/process and wastewater, drinking and well water, boiler feed water, rain/pond and surface water, greenhouse technology, swimming pools, aquariums (also seawater aquariums)

Further information: Data Sheets 20.2560, 20.2565

Fittings

Flow-through fittings



Flow-through fittings are used for holding electrochemical transducers (e.g. pH and redox combination electrodes, glass conductivity cells, compensation thermometers etc.) with a Pg13.5 screw thread and a mounting length of 120mm. Fitting types are available for 1 to 3 transducers. The fittings are mounted directly in the feed lines of the substance being measured, or in bypasses. They protect the installed sensors from breakage and, thanks to their special construction, prevent measurement errors by ensuring the correct incident flow on the sensor. Various mounting methods and materials are available.

Further information: Data Sheet 20.2810

Manual quick-change fittings



Manually operated quick-change fittings make it possible to remove and replace the sensors under process conditions, i.e. the circulation or main feed that is concerned does not have to be interrupted.

The principal areas of application for quick-change fittings are in closed circulation systems or measurement in the inlets or outlets of wastewater systems. Quick-change fittings can also be mounted in the side walls of containers – in this case, a sensor can be removed without first having to empty the container. The fittings enable the mounting of sensors with a Pg13.5 thread and a mounting length of 120 or 225mm.

Further information: Data Sheet 20.2822

Immersion fittings

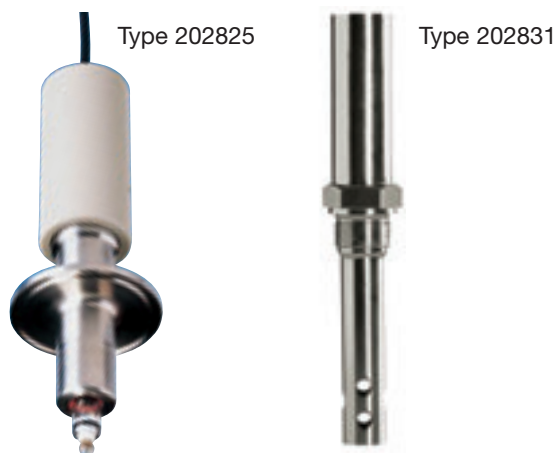


Immersion fittings are used for holding electrochemical transducers (e.g. pH and redox electrodes, glass conductivity cells, compensation thermometers etc.) with a Pg13.5 screw thread and a mounting length of 120mm. Fitting types are available for 1 to 3 transducers.

The fittings are mounted in open sluices or containers. They protect the installed sensors from breakage, and permit measurement at various immersion depths. Options and accessories make it possible to adapt the fittings to match the application conditions. The standard versions use two pipe clamps for wall mounting, but optionally available sliding flanges also permit mounting in container lids and the like.

Further information: Data Sheet 20.2820

Stainless steel process fittings



These fittings are used to mount and protect the transducers. They can be installed directly in existing stainless steel piping systems or in the walls of containers. Type 202825 fittings are primarily used in processing installations that are subject to enhanced hygienic requirements. The parts in contact with the medium, and the sealing materials that are used, comply with the requirements of the FDA (Food & Drug Administration). Type 202831 fittings are primarily used in water engineering and process technology. Both types of fitting are intended to be used for installing sensors with a length of 120mm.

Further information: Data Sheet 20.2825

JUMO ecoTRANS pH 03 Transmitter for pH Value/Redox Voltage and Temperature with Switching Contact

- **Main variables**
 - pH value (temperature compensated)
 - Redox voltage
- **Usable sensors**
 - Electrodes
 - Measurement electrodes with isolated reference electrode
- **Connection**
 - Screw terminals
 - Asymmetrical (normal) connection
 - Symmetrical connection
- **Switching output**
 - Relay switching contact
- **Two permanent outputs, electrically isolated**
 - Main variable
 - Temperature
- **Binary input
(activated by external floating contact)**
 - Can be used to change the outputs to previously defined states
(for example during maintenance work)
- **Housing for rail mounting**
 - 35 mm x 7.5 mm rail to EN 60715 A.1
 - Dimensions:
109 mm x 22.5 mm x 124.8 mm (H x W x D)
- **Operation/programming**
 - Keys and LC display
 - Setup program (file)



Possible areas of application:

General water systems, drinking water and wastewater, industrial water, surface water and sea water, swimming pools, fountains, monitoring tasks

Further information: Data Sheet 20.2723



Head office Fulda
JUMO GmbH & Co. KG
☎ +49 661 6003-0
mail@jumo.net
www.jumo.net

Darmstadt
☎ +49 6151 3508-0
http://darmstadt.jumo.info

Essen
☎ +49 201 86627-0
http://essen.jumo.info

Hannover
☎ +49 5723 9432-0
http://hannover.jumo.info

Ingolstadt
☎ +49 841 37934-0
http://ingolstadt.jumo.info

Stuttgart
☎ +49 7021 95091-0
http://stuttgart.jumo.info

Austria
JUMO Mess- und Regelgeräte
Ges.m.b.H.
☎ +43 1 6 10 61 0
info@jumo.at
www.jumo.at

Belgium
JUMO Automation
S.P.R.L./P.C.M.B.H./B.V.B.A.
☎ +32 87 59 53 00
info@jumo.be
www.jumo.be

Bulgaria
JUMO Izmervatelni uredi i
Regulatori
☎ +359 2 973 39 88
jumbog@centrum-group.com

China
JUMO Automation Dalian Co. Ltd.
☎ +86 411 8718 9010
info@jumo-china.com
www.jumo-china.com

Croatia
JUMO
Mess- u. Regelgeräte Ges.m.b.H.
☎ +385 42 30 30 10
info@jumo.hr
www.jumo.hr

Czech Republic
JUMO Mereni a regulace s.r.o.
☎ +420 541 321 113
info.it@jumo.cz
www.jumo.cz

Denmark
JUMO Måle- og Regulerings teknik A/S
☎ +45 46 19 46 66
info.dk@jumo.net
www.jumo.dk

France
JUMO Régulation SAS
☎ +33 3 87 37 53 00
info.fr@jumo.net
www.jumo.fr

Hungary
JUMO HUNGARIA Kft.
☎ +36 1 467 08 35
jumbobudapest@jumo.hu
www.jumo.hu

India
JUMO India Pvt. Ltd.
☎ +91 124 4121 600
info.in@jumo.net
www.jumo.in

Italy
JUMO Italia SRL
☎ +39 02 24 13 55 1
info.it@jumo.net
www.jumo.it

Netherlands
JUMO Meet- en Regeltechniek B.V.
☎ +31 294 49 14 91
info@jumo.nl
www.jumo.nl

Norway
JUMO AS
☎ +47 67 97 37 10
info.no@jumo.net
www.jumo.no

Poland
JUMO Sp.z.o.o.
☎ +48 71 3 39 82 39
biuro@jumo.com.pl
www.jumo.com.pl

Romania
S.C. JUMO Romania S.R.L.
☎ +402 573 48 499
info@jumo.ro
www.jumo.ro

Russia
JUMO GmbH
☎ +7 495 961 32 44
jumo@jumo.ru
www.jumo.ru

Serbia/Montenegro
JUMO Mereni i regulacioni uredaj
☎ +381 11 285 2279
sijljan@eunet.yu

Slovakia
JUMO Slovensko s.r.o.
☎ +421 244 87 16 76
jumo@stonline.sk
www.jumo.sk

Slovenia
JUMO merilni in regulacijski aparati
☎ +386 2 421 51 83
info@jumo.si
www.jumo.si

Spain
JUMO Control S.A.
☎ +34 91 8863 153
gerardo.jentsch@jumo.net
www.jumo.es

Sweden
JUMO Mät- och Reglertechnik AB
☎ +46 42 38 62 80
info@jumo.se
www.jumo.se

Switzerland
JUMO Mess- und Regeltechnik AG
☎ +41 44 928 24 44
info@jumo.ch
www.jumo.ch

Türkei
JUMO Ölçü Sistemleri ve
Otomasyon San. ve Tic. Ltd. Şti.
☎ +90 216 455 86 52
info.tr@jumo.net
www.jumo.com.tr

USA
JUMO Process Control, Inc.
☎ +1 315-697-5866
info@jumo.us
www.jumo.us

United Arab Emirates
JUMO GmbH & Co. KG
☎ +971 4 347 2936
info.ae@jumo.net
www.jumo.ae

United Kingdom
JUMO Instrument Co. Ltd.
☎ +44 1279 63 55 33
sales@jumo.co.uk
www.jumo.co.uk

For further international locations
please visit www.jumo.net