



More than **sensors + automation**

2018

# New Products

2nd half of 2018



## JUMO Safety Performance – the new brand for more safety

JUMO Safety Performance is a new brand from JUMO. Products marked with this brand are suitable for safety-related plants. Included here are devices that are SIL and PL certified, but also passive elements that are suitable for use in SIL and PL measuring chains. These are labeled with “SIL qualified” and “PL qualified”.



### Functional Safety – Hassle-Free!

## Advantages of the new JSP (JUMO Safety Performance) brand

- Certified measuring chain protection up to SIL 3/PL e possible
- Highest degree of flexibility for the configuration of the SIL components through comprehensive delivery program
- Safe monitoring and shutoff of systems
- Selectable security features (e.g. limiter or monitor function according to DIN 14597)
- Suitable for different measurands such as temperature, pressure, level, and flow
- Variable, manufacturer-independent selection of sensor technology and actuators
- Certified measuring chain individually adaptable to the process requirement
- SIL calculation is no longer necessary by the user when the JUMO safetyM is used in combination with JUMO temperature probes
- Also available as explosion-protected compact solution according to ATEX directive in different ignition protection types such as [Ex i]
- Individual assessment of the safety chain by the experienced JUMO Safety Performance team of experts



## Safety-related shutdown up to SIL 3

### Certified compact system for temperature



JUMO thermocouples/  
RTD temperature probes

JUMO safetyM STB/STW  
Type 701150



Manufacturer's  
declaration



### Compact system for temperature



JUMO thermocouples/  
RTD temperature probes



JUMO dTRANS T07  
Type 707800



Repeater power supply/input  
isolating amplifier  
Type 707530

JUMO safetyM STB/STW  
Type 701150



### Compact system for pressure\*



JUMO dTRANS p20  
Type 403025

JUMO safetyM STB/STW  
Type 701150



### Compact system for pressure



JUMO dTRANS p20  
Type 403025



Repeater power supply/input  
isolating amplifier  
Type 707530

JUMO safetyM STB/STW  
Type 701150



### Compact system for flow\*



JUMO flowTRANS MAG S01  
Type 406012

JUMO safetyM STB/STW  
Type 701150



- The JUMO safetyM STB/STW has an output signal to control the downstreamed safety actuator systems.
- Additional output signal suitable for downstreamed visualization, controlling, and documentation.

\* Auxiliary energy for power supply is required separately.

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## JUMO plastoSENS T

### Innovative temperature measurement technology in a unique plastic design

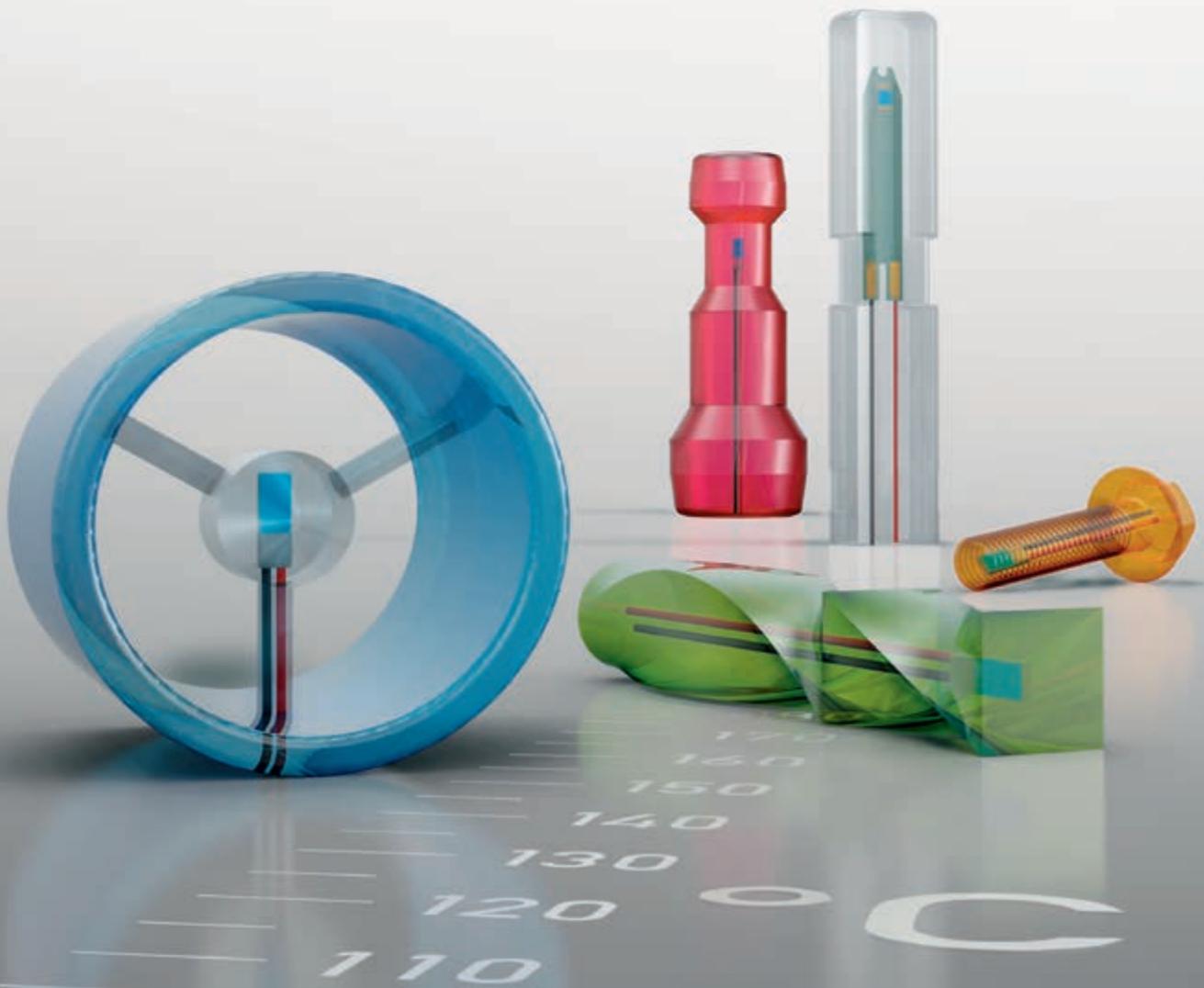
At first glance JUMO plastoSENS T products may look like ordinary temperature probes. But upon a closer look they reveal themselves to be an innovation in temperature probe production. The metal that has been previously used for temperature probes is replaced by a new type of thermoplastics through which an almost infinite amount of possibilities are made possible.

Here, the applied thermoplastics can be combined individually. One advantage is that heat-conducting and non-heat-conducting plastics can be combined so that response times are increased and the heat conduction error is lowered. The addition of different additives such as fiberglass or UV protection improves the stability of the temperature probe. That provides ideal conditions for reliable application in a wide variety of industries as well as for a long operating life of the measurement technology.

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### Advantages of JUMO plastoSENS technology

- Geometric freedom of design – almost any form is possible
- Application-specific composition of the thermoplastics
- User selectable sensor type (e.g. SMD, NTC, PTC, Pt sensor)
- Temperature range from -50 to +200 °C





Type 904001

## JUMO plastoSENS T01

### Voltage-resistant plastic temperature probe

- Insulation resistance up to 10,000 V
- Standardized, voltage-resistant probe (e.g. for use in transformers)
- Electrically insulating and heat conducting at the same time
- Higher capacity – compared to conventional probes used in high voltage areas
- Application areas: in transformers, generators, voltage rails, combined heat and power plants, etc.



Type 904002

## JUMO plastoSENS T02

### Vibration-resistant plastic temperature probe

- Vibration and shock-resistant – withstands forces of up to 20 g
- Shock-resistant – thanks to temperature probe that is completely surrounded by plastic
- Can be used in almost all liquids – even in chemicals
- High-performance plastic favors low natural frequency in case of oscillation, resulting in higher load capacity for the temperature probe
- Breakage resistance due to stable sensor
- Can be used for engine oils, fuels, battery acids, AdBlue®, etc.



Type 904003

## JUMO plastoSENS T03

### Steam-tight plastic temperature probe

- Protection type IP69K – also steam-tight and on the cable outlet
- Absolute tightness – the applied special plastics form a substance-to-substance bond during the injection molding process and thereby guarantee steam-tightness
- Application areas: in autoclaves, steam sterilizers, CIP cleaning, SIP cleaning, etc.



## JUMO NESOS series

Series of point and continuous level measurement via floats

- Point level measurement via floats and reed contact
- Level measurement via floats and reed contact
- For liquid media irrespective of foam formation, conductivity (permittivity), or pressure ratios
- Temperature range from -52 to +240 °C
- Available in numerous versions
- Approvals for shipbuilding and explosion-protected areas as well as a certificate for the Pressure Equipment Directive (PED)

Types 408301, 408302, 408303, 408320



 IO-Link

 digiLine



## JUMO digiLine CR and JUMO digiLine Ci

Digital sensor technology for conductive and inductive conductivity measurement – **Now with IO-Link!**

- Smart sensor for conductive and inductive conductivity and concentration measurement
- JUMO digiLine interface
- IO-Link interface
- Head transmitter with and without display
- Transmitter with separate sensor with and without display
- Digital Sensor Management (DSM) for measuring point documentation provides support with predictive maintenance
- Digital data transfer
- Modular system – for both individual measuring points as well as for setting up sensor networks
- Delivery includes calibration certificate
- Temperature compensation according to ASTM
- Integrated temperature compensation (e.g. linear)
- Switching function according to USP <645>

Types 202706, 202707, 202708, 202709



## JUMO platinum-chip temperature sensor in SMD design

According to DIN EN 60751, type PCS, as flip chip



- Secure installation without short circuit
- Space-saving installation ensures for up to 15 % more space on the circuit board
- High degree of insulation resistance due to insulation of the side that is turned away from the circuit board
- Flexible use even when space is constrained

Type 906125



## JUMO CEROS S01 M

Digital pressure measuring cell



- Already adjusted and completely temperature-compensated
- Zero point correction possible (e.g. after installation)
- Pressure and temperature values as a digital signal
- Direct mounting on circuit board possible (without additional connector)
- Adjustable sensor monitoring (signal limitation, attenuation, limit values)
- Traceability of the sensor with a clear digital signature

Type 405101



## JUMO heatTHERM p300

3-phase panel-mounted thermostat



- 3-phase safety temperature limiter
- Maximum switching capacity 30 A, 480 V
- Variable electrical connection options
- Trip-free function (restart lock)
- Capillary break monitoring

Type 602090



## JUMO diraTRON series

### Compact controllers

- Quick and simple startup
- Intuitive configuration and operation
- Fixed value and program controller
- ST code (structured text) for individual application development
- Easy-to-use USB setup without auxiliary energy
- Service and operation hours counter
- Text display for process information



Types 702110, 702111, 702112, 702113, 702114



## JUMO diraVIEW series

### Digital indicator

- On-site display of various process variables
- Quick and simple startup
- Intuitive configuration and operation
- Diverse functions such as hold and tare, ST code (structured text) for individual application creation, saving of minimum and maximum values
- Easy-to-use USB setup without auxiliary energy
- Text display of process information



Types 701510, 701511, 701512, 701513, 701514



## JUMO dTRANS T06

### Multifunctional four-wire transmitter in mounting rail case

- Universal input for a large number of sensors and standard signals
- Intuitive operation and configuration on the device or through USB interface with setup program
- Intelligent additional functions such as min./max. drag indicator, operating hours counter, and output simulation
- SIL 2/SIL 3 according to DIN EN 61508 and PL c/d according to DIN ISO 13849
- Sensor matching for RTD temperature probes
- Customer-specific linearization
- High galvanic signal separation



Type 707071





Type 705000

## JUMO mTRON T – system version 05

Measuring, control, and automation system

- Program preview directly in the multifunction panel
- User logon via interface (e.g. with RFID chip card)
- Update to CODESYS version 3.5 SP10 patch 0
- Expansion of the process contacts from 16 to 64
- Expanded range of JUMO mTRON T operating panels
- Expansion of the TAG numbers from 7 to 42 characters
- Expansion of the Modbus RTU/TCP interface description
- Expansion of the analog selector in the controller module



Type 707101, 707209

## JUMO dTRANS T08 and JUMO dTRANS S08

Temperature transmitter as well as signal and isolating converter series

- Minimal width of only 6 mm
- Simple startup via DIP switch
- High degree of precision and reliability with a basic accuracy of up to 0.05 %
- Quick response time of up to 7 ms
- Large ambient temperature range of -25 to +70 °C



Type 987050

## JUMO thermoCOR

Portable measuring system according to AMS2750 and CQI-9

- Implementation of SAT and TUS tests
- Creating and managing test reports
- 12 thermocouple inputs and 4 universal inputs
- Tamper-proof recording using TÜV approved JUMO PCC and PCA software
- Mobile version in high-quality and robust design
- Very user-friendly due to unique process screens as well as tried-and-tested JUMO programming
- Various JUMO service packages available

# JUMO Engineering

Food and beverage



Renewable energy



Plastics and packaging



Pharmaceuticals and biotechnology



Industrial furnaces



- Project management
- Feasibility analysis
- Product requirement specifications
- Project planning
- Startup
- Training

Processes

- Controlling
- Recording
- Monitoring
- Automation
- Pressure
- Humidity
- Flow
- Level
- Analytical measurement
- Temperature

sensors + automation

Industries

- Renewable energy
- Mechanical engineering
- Pharmaceutical engineering
- Water and wastewater engineering
- Industrial furnace construction
- Food technology
- Railway technology
- Shipbuilding
- Heating and airconditioning

Expertise

- Personalized consulting and support
- Individual and market-oriented solutions
- Wide range of technologies
- Decades of experience

Service

- Service and maintenance concepts
- Technical support
- Training courses and workshops
- Implementation concepts
- On-the-job training

## System solution – JUMO Engineering

What began with a customer application in climate control that required sensor technology, control, recording, and automation has now become the basis for JUMO Engineering. As a system provider specialized in complete solutions, we take a holistic yet individual approach to meeting your needs in a customized manner. In addition to the required devices that we provide we also take on project planning and project management of plants. You benefit from the expertise we have acquired over decades of working in a variety of indus-

tries. Our engineers and technicians are always available to assist with clarification of technical details, workshops, subapplications, and the development of complete solutions. The structured process covering the creation of the specification sheet, implementation, documentation, and startup through to final training delivers clear and effective solutions. Our global sales organization is available to provide additional information.

### Our services

- Feasibility analysis
- Creating a technical concept including product requirements/specification sheet
- Complete project planning and documentation
- Project planning incl. PLC programming, visualization, network technology, etc.
- Continuous project management
- On-site startup
- Training and support

### Your advantages

- JUMO, as the central contact partner, develops a technical system solution specifically for you
- You benefit from our team's extensive expertise with all measurement and automation devices
- Global support through experienced specialists
- A flexible, tailored solution to suit your individual needs and application

### In a nutshell

- Precise and prompt communication channels.  
*This saves you time and prevents mistakes!*
- Highly developed expertise for maximum flexibility:  
*You benefit from fully reliable and secure project planning!*
- Technology that has proven itself over decades reduces downtimes:  
*As a result you get excellent plant availability and process reliability!*





[www.jumo.net](http://www.jumo.net)

