



More than **sensors + automation**



# Pressure

Innovative solutions for the toughest requirements



**Contact:**

Phone: +49 661 6003-0

Email: [sensors@jumo.net](mailto:sensors@jumo.net)

## Dear Reader,

Sensor technology is one of our core areas of expertise. This is particularly so for pressure sensor technology. After all, we produce both the pressure sensors and the pressure electronics ourselves. The high quality of our products is the result of more than 40 years of knowledge and experience as well as the motivation to continually improve.

We attach just as much importance to new developments as we do to the continuous improvement of existing products. We optimize our production methods so that we can respond flexibly to your requirements and deliver the highest quality at the best price. As a universal supplier for all industrial sectors, JUMO develops standard devices as well as customized versions – both in small and large quantities – with the same diligence and commitment.

Why is this diversity so important to us? Because we do not only want to be among the best in Germany but also in all other markets throughout the world. As a result, we make sure that all our products meet the current standards, directives, and laws.

This brochure provides an overview of JUMO's extensive range of products for pressure measurement technology. In addition, we would be happy to work with you to attain solutions that are tailored to your specific requirements. We look forward to hearing from you.

Further information about our products can be found at [www.jumo.net](http://www.jumo.net) using the specified type designation or data sheet number.

## Table of Contents



<b>Pressure measurement</b>	<b>4</b>
<b>JUMO sensor and measuring system production</b>	<b>6</b>
<b>Products</b>	<b>8</b>
JUMO CEROS S01 M	8
JUMO MIDAS series	10
JUMO dTRANS p30 series	14
JUMO TAROS S46H	16
JUMO Wtrans p	18
JUMO DELOS series	20
JUMO dTRANS p02/p20 series	22
JUMO differential pressure transmitters	26
JUMO CANtrans series	28
JUMO pressure sensors with IO-Link	30
JUMO PEKA and pressure separators	32
Service	34

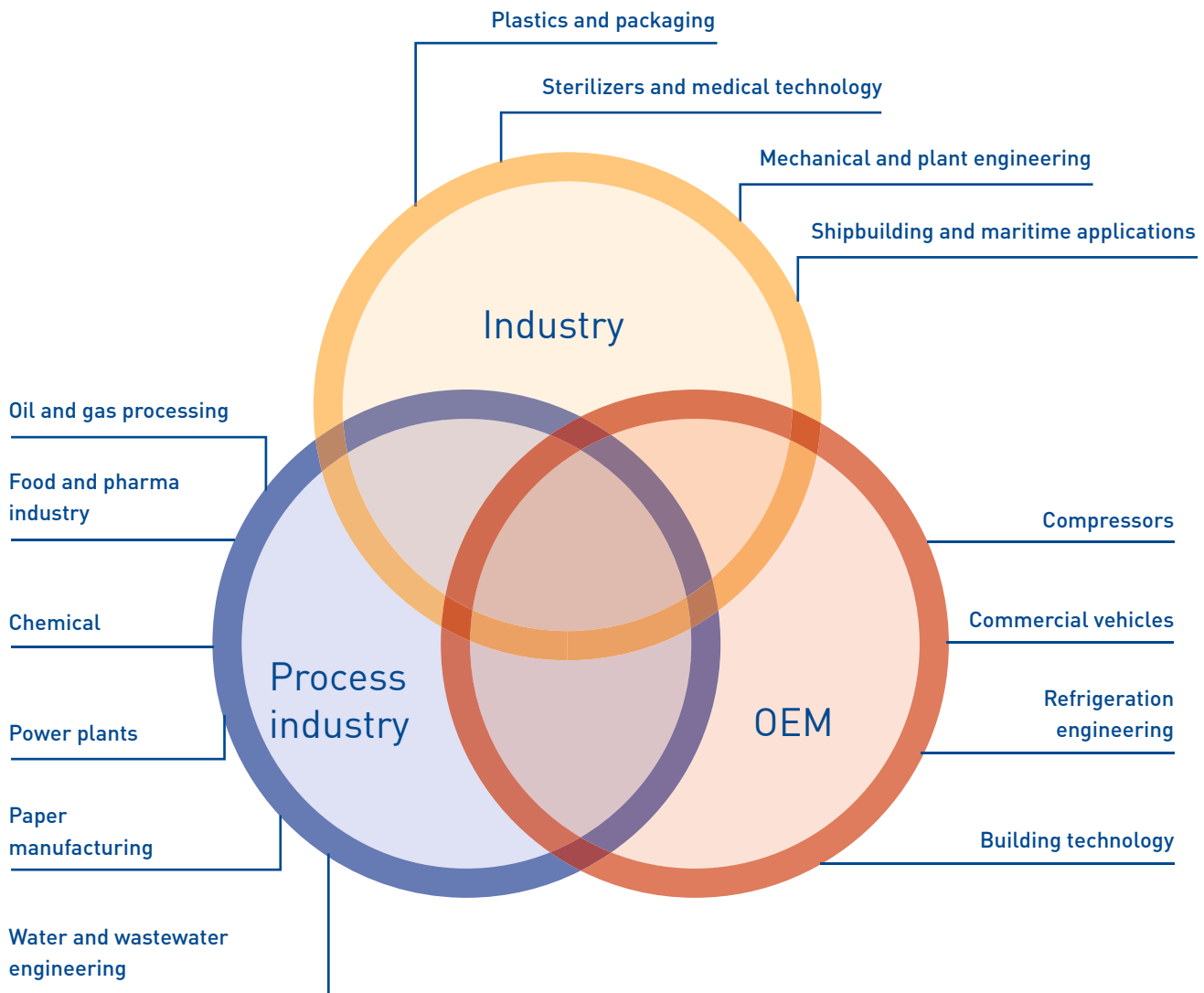


# Pressure measurement

Pressure measurement is one of the most important tasks in almost all industrial sectors. High-quality pressure measuring devices ensure reliable and safe measuring results. JUMO supplies precision solutions for the process industries, hygienic solutions for the food and pharmaceutical industry, universal solutions for mechanical and plant engineering, large quantities for the OEM market, and modules for its competitors. Consequently, JUMO can also provide the right solution for your specific application.

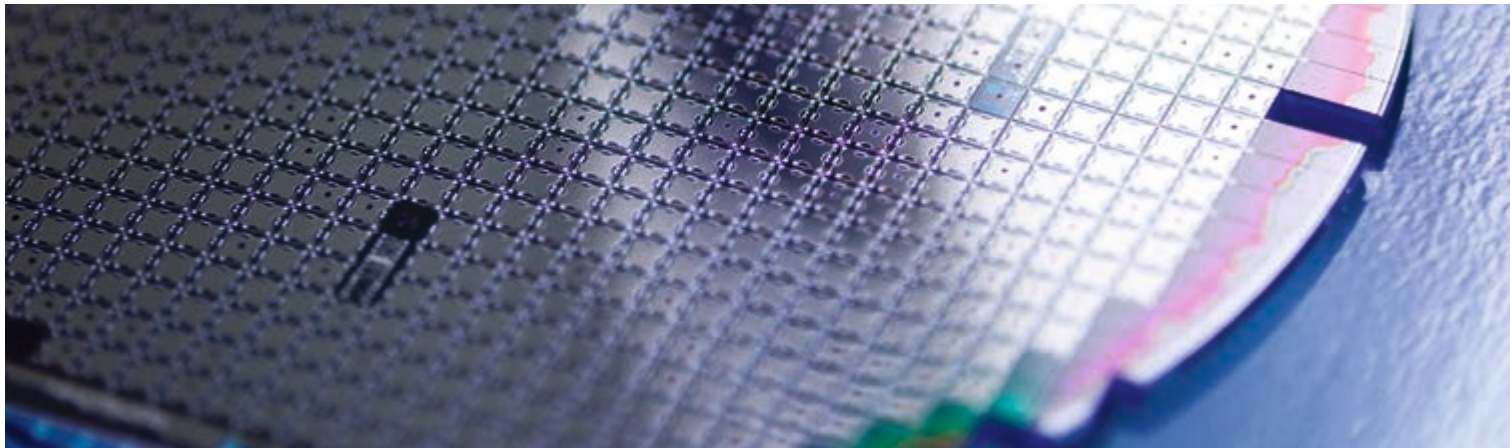


### The industries



The right solution for every task: our wide range of different devices offers the perfect sensors for classic mechanical and plant engineering as well as for the process industry or the OEM sector.

In addition to standard devices, JUMO's product range also includes customer-specific versions for special applications.



# JUM0 sensor and measuring system production

Our internally-developed, patented pressure sensors and measuring systems are characterized by the highest quality. Benefit from the large variety of producible sensor technologies and our high degree of flexibility. Our many years of experience and modern production lines enable us to implement your solution.



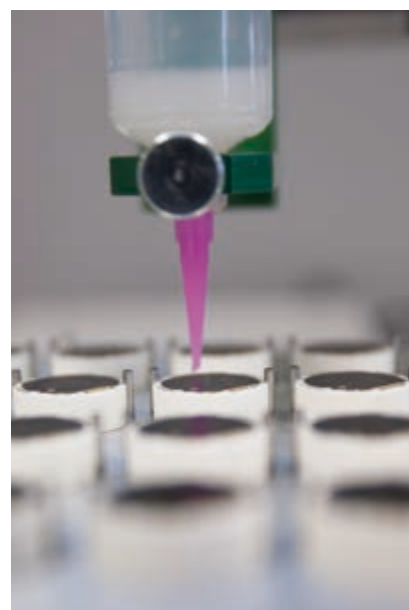
## JUMO sensor and measuring system production



Working in a clean room  
for pressure sensors



Production:  
Silicon pressure sensors



Production:  
Ceramic pressure sensors

### Quality through attention to detail

Our products set the benchmark for precision. This quality results from the extensive experience of our highly qualified staff as well as close cooperation with our customers in development and production. We are familiar with complex interrelationships and therefore see quality as a process to be continuously examined and improved: starting with new product development based on sensors that we manufacture ourselves, we safeguard our manufacturing process with the very latest production lines and finally subject each device to a 100 % final inspection.

### Flexibility

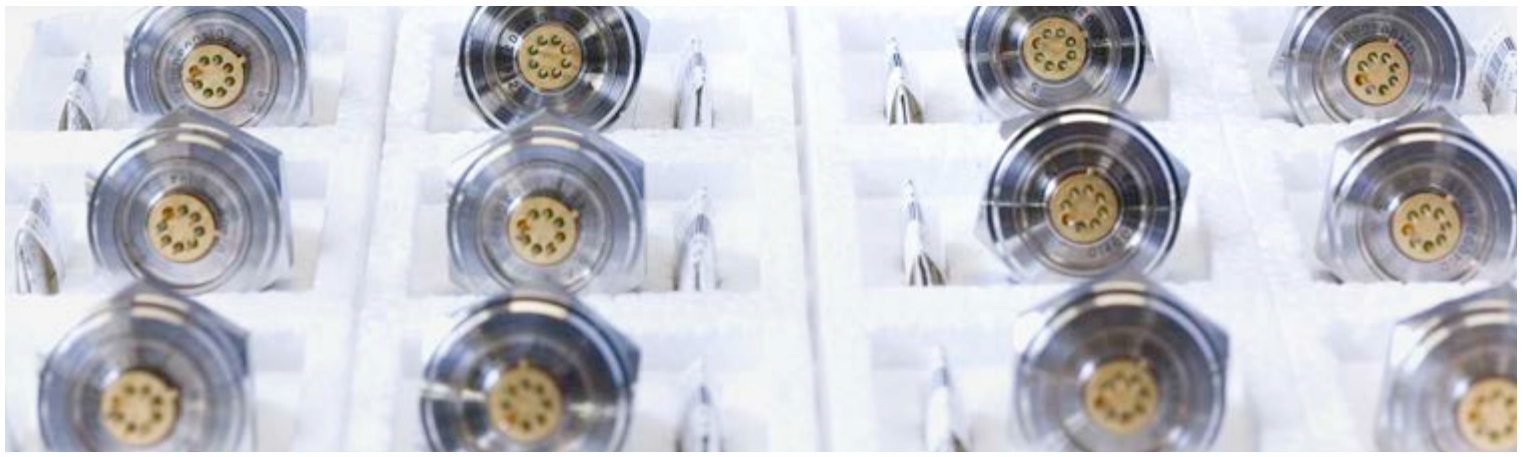
At JUMO we develop, produce, and test new products or customer-specific versions ourselves. Our independence

and many years of experience enable us to respond flexibly to special customer requests as well as to meet the requirements of the respective application.

### Diversity and expertise

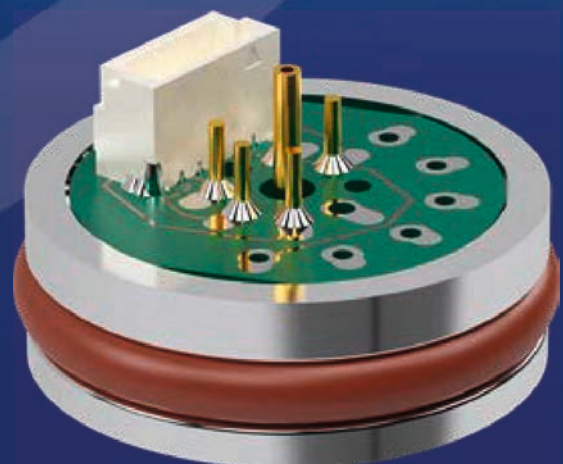
Even the sensor itself – the basis of any pressure measuring device – can be individually adapted to your applications and requirements. You can choose between different measuring systems. These include piezoresistive silicon, metal thin film, ceramic thick film, or capacitive ceramic. You can also use other selection criteria such as size or materials.

Our sensors are available in various configuration levels as modules or in complete devices.



# JUMO CEROS S01 M

The digital pressure measuring cell JUMO CEROS S01 M is used to measure the pressure of liquid and gaseous media. Unlike ordinary pressure measuring cells, this is an active component that provides a temperature-compensated and calibrated output signal – which can be digital or analog. The piezoresistive sensing element with integrated signal processing is hermetically encapsulated. It ensures stable, precise linearity and accuracy values even under adverse conditions. The digital pressure measuring cell allows the production of pressure transmitters and level probes to be significantly optimized as complex and time-consuming production steps (such as pressure and temperature compensation) are omitted. The result is production that is a quick and flexible.





## Digital pressure measuring cell

### Highlights overview

- Silicon measuring cells with piezoresistive sensing element for absolute and relative pressure measurement
- Temperature compensated and calibrated, digital or analog output signal
- Digital output signal includes pressure and temperature values
- Zero point correction through setup program possible (e.g. after installation/welding of the measuring cell)
- Direct mounting on circuit board possible without additional connector
- Adjustable sensor monitoring (signal limitation, attenuation, limit value)
- Traceability of the sensor with a clear digital signature

### Features

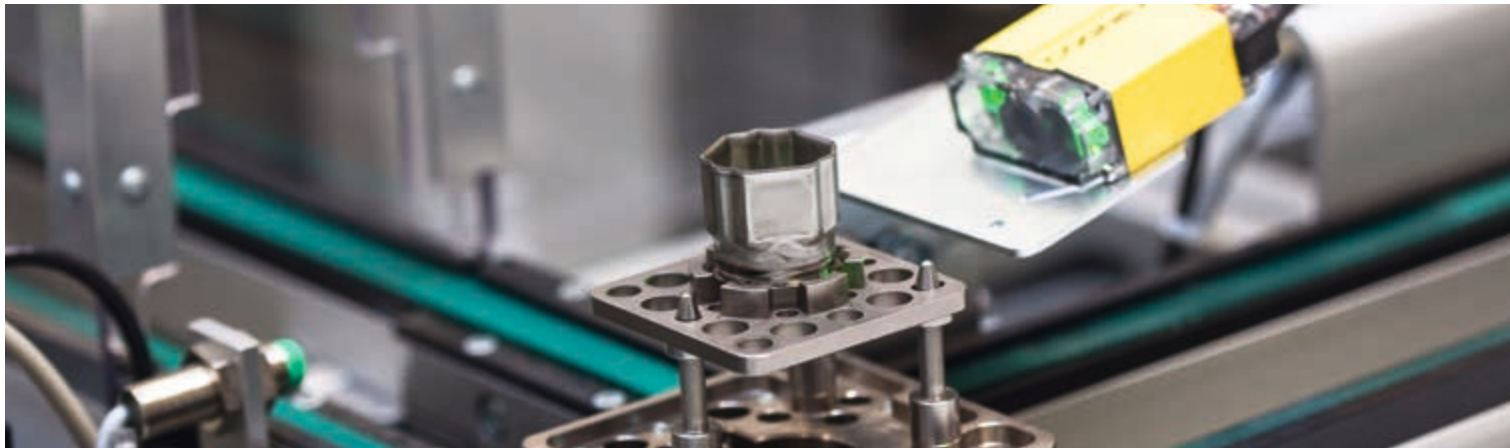
- Piezoresistive silicon sensor
- Integrated temperature sensor
- Oil filling: silicone
- Output: 0.5 to 4.5 V ratiometric/I<sup>2</sup>C-protocol
- Accuracy: <0.4 %
- Linearity: <0.2 %
- Housing material: 1.4404, 1.4571
- Measuring ranges: 100 mbar to 100 bar relative, 0 to 100 bar absolute
- Temperature range: -40 to +125 °C
- Signal resolution: 15 bit
- Electric strength: ±40 V
- Response time: T<sub>90</sub> <3 ms
- Optionally: surface roughness Ra ≤ 0.8 μm

### Product benefits

- No investments in additional production technology – the pressure measuring cell provides an elaborately temperature-compensated/calibrated, pressure-proportional, digital/ratiometric output signal
- Space-saving design – digital pressure measuring cell with integrated signal processing for applications in which installation space is extremely limited
- Subsequent zero point adjustment through setup program possible to correct welding or installation errors
- Digital communication allows transfer of pressure and temperature values with minimal cabling
- Increased reliability of the sensor due to improved temperature stability
- Simple, hassle-free use through protection against reverse-polarity, overvoltage, and electrostatic discharge

### Application areas

- Food and pharmaceutical industry (front-flush installation)
- Manufacturers of pressure, level, and flowmeter devices
- Pumps, compact devices, valve blocks, data loggers, handheld devices, level measurement via bubble-through method, digital manometer, industrial pressure regulator, electropneumatics converter (I/P or U/P or D/P transducer), volume corrector



# JUMO MIDAS series

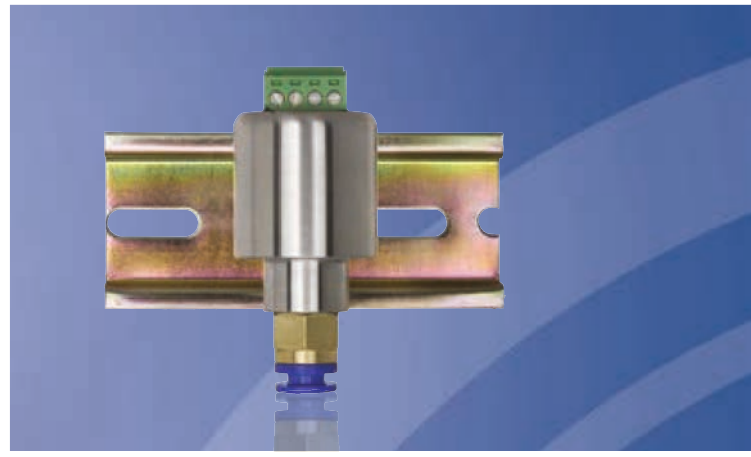
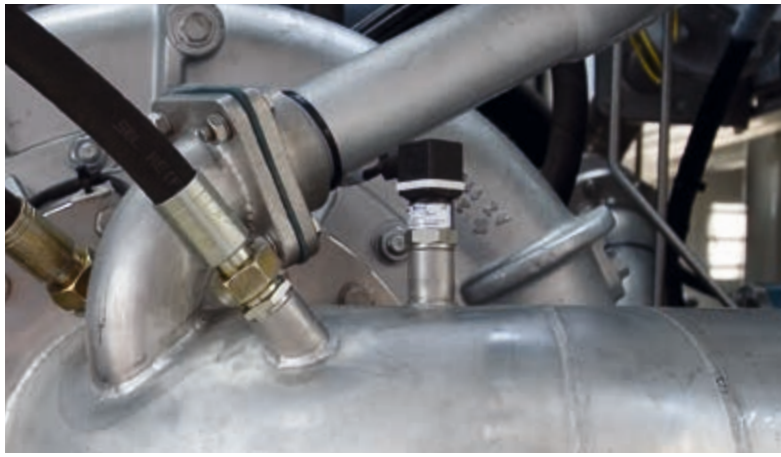
The compact pressure transmitters of the JUMO MIDAS series are characterized by measurement that is reliable and that has long-term stability – at an excellent price-performance ratio. We ensure high quality due to a fully-automated production and complete final inspection. Different measuring ranges, process connections, and electrical connections result in a versatile portfolio with solutions for every measuring task.



### OEM pressure transmitter series JUMO MIDAS



OEM pressure transmitter		Basic	Universal	Low pressure	Standard
Designation		JUMO MIDAS C08	JUMO MIDAS S05	JUMO MIDAS S06	JUMO MIDAS SI
Type		401002	401010	401011	401006
Application	Facility management	•			
	Industry	•	•	•	•
	Air conditioning technology and refrigeration engineering		•	•	
	Compressors	•		•	•
	Co-generation (combined heat and power)	•	•	•	•
	Medical technology		•	•	
	Pneumatics	•			•
	Packaging and filling	•	•	•	•
	Wind power		•		
	Technical data	Measuring range	0 to 60 bar relative	0 to 100 bar relative 0 to 40 bar absolute	0.1 to 0.6 bar relative
Measuring system		Thick film on ceramic bodies (piezoresistive)	Silicon sensor with stainless steel separating membrane		
Medium temperature		-20 to +125 °C	-40 to +125 °C	-20 to +100 °C	-30 to +125 °C
Accuracy (linearity)		0.25 %	0.2 to 0.3 %	0.2 to 0.3 %	0.3 %
Output		4 to 20 mA 2-wire, DC 0.5 to 4.5 V 3-wire, DC 0 to 10 V 3-wire, DC 1 to (5)6 V 3-wire			4 to 20 mA 2-wire, DC 0.5 to 4.5 V 3-wire, DC 0 to 10 V 3-wire, DC 1 to (5)6 V 3-wire, DC 0 to 10 V 3-wire
Process connection		All screw connections that are standard in the industry			
Approvals		cULus		-	-



## OEM pressure transmitter series JUMO MIDAS



OEM pressure transmitter		Ship approval	Railway	High pressure	ATEX
Designation		JUMO MIDAS S07 MA	JUMO MIDAS S19 R	JUMO MIDAS H20 HP	JUMO MIDAS S21 Ex
Type		401021	401008	401020	404710
Application	Shipbuilding	•			
	Railway		•		
	Hydraulics			•	
	Industry	•		•	•
	Compressors	•		•	•
	ECE type approval			•	
	Wind power			•	
	ATEX, explosion protection				•
	Technical data	Measuring range	1 to 100 bar relative 1 to 25 bar absolute	2.5 to 60 bar relative; 2.5 to 40 bar absolute	100 to 1000 bar relative
Measuring system		Silicon sensor with stainless steel separating membrane		Thin film sensor	Silicon sensor with stainless steel separating membrane
Medium temperature		-40 to +125 °C	-40 to +125 °C	-40 to +125 °C	-40 to +85 °C
Accuracy (linearity)		0.25 to 0.3 %	0.25 to 0.3 %	0.5 to 1 %	0.3 %
Output		4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire	4 to 20 mA 2-wire, DC 0.5 to 4.5 V 3-wire, DC 0 to 10 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire
Process connection		All screw connections that are standard in the industry			
Approvals		DNV GL	Tested for railway applications according to DIN EN 50155 and DIN EN 50121	cULus; ECE type approval	ATEX

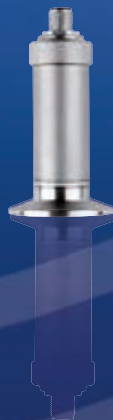


	OEM pressure transmitter	Cabinet	Differential pressure	Seawater
	Designation	JUMO MIDAS DR	JUMO MIDAS DP10	JUMO MIDAS C18 SW
Application	Type	401009	401050	401012
	Facility management	•	•	
	Industry	•	•	•
	Air conditioning technology and refrigeration engineering		•	
	Compressors	•	•	
	Co-generation (combined heat and power)		•	
	Pneumatics	•		
	Packaging and filling		•	
	Water treatment			•
	Technical data	Measuring range	1.6 to 16 bar relative	0.4 to 16 bar DP
Measuring system		Thick film on ceramic bodies (piezoresistive)	Piezoresistive silicon sensor	Thick film on ceramic bodies (piezoresistive)
Medium temperature		-15 to +60 °C	-15 to +100 °C	-20 to +125 °C
Accuracy (linearity)		0.5 %		0.25 to 0.3 %
Output		4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire, DC 1 to 5(6) V 3-wire		4 to 20 mA 2-wire, DC 0 to 10 V 3-wire
Process connection		Push-in fittings for tube or hose	Rp 1/8 internal thread, push-in fitting for tube or hose	All screw connections that are standard in the industry
Approvals		-	Tested for railway applications according to DIN EN 50155 and DIN EN 50121	DNV GL



# JUMO dTRANS p30 series

Our JUMO dTRANS p30 series impresses with its flexibility. Its universal use is reflected in the large selection of measuring ranges, process connections, and electrical connections. The front-flush, sealless measuring system and the high temperature variant for use in media with temperatures of up to 200 °C allow this series to meet the requirements of hygienic applications. This flexible series also has a variation with explosion protection so that virtually all application areas are covered.



## Process pressure transmitter series JUMO dTRANS p30



Pressure transmitter	Standard	High temperature	Gases	EX version	Small ranges
Designation	JUMO dTRANS p30	JUMO dTRANS p31	JUMO dTRANS p32	JUMO dTRANS p33	JUMO dTRANS ceramic
Type	404366	402050	402051	404753	404327
Biogas plants	•				•
Chemical industry	•	•			•
Compressed air control	•		•		
Food and pharma industry	•	•		•	•
HVAC technology	•		•		
Industry, universal	•			•	
Laboratory technology	•		•		
Medical technology	•	•			•
Clean room technology			•		
Sterilization/ autoclaving		•			
Measuring range	250 mbar to 600 bar relative, absolute	1 to 60 bar relative, absolute	40 to 600 mbar relative	250 mbar to 600 bar relative, absolute	50 mbar to 1 bar relative
Medium temperature	-30 to +120 °C	-30 to +200 °C	-30 to +120 °C	-40 to +200 °C	-20 to +80 °C
Accuracy (linearity)	0.2 to 0.5 %		0.5 %		0.2 %
Output	4 to 20 mA 2-wire, 0(4) to 20 mA 3-wire, DC 0.5 to 4.5 V 3-wire, DC 0 to 10 V 3-wire, DC 1 to 5(6) V 2-wire			4 to 20 mA 2-wire	4 to 20 mA 2-wire, DC 0.5 to 4.5 V 3-wire
Process connection	Thread; hygienic connections (with EHEDG); JUMO PEKA; diaphragm seal		Thread, hose connection	Thread	Thread, hygienic connections



# JUMO TAROS S46H

The device is designed according to the hygienic requirements for precision measurement and a long life cycle. It offers process reliability through a high degree of accuracy, even over a wide temperature range. The pressure measuring ranges, which are adjustable at the factory, lie between 0 and 100 bar relative as well as between 0 and 40 bar absolute. One prominent area in which the transmitter is used is the food and pharmaceutical industry.





## Hygienic pressure sensor

### Your benefits in a nutshell:

- More process reliability through high-precision measurement
- Extended application area for special uses due to autoclavability at up to 140 °C/3.6 bar absolute as well as operation in CIP and SIP processes at up to 140 °C
- Reliable measurement results over a long period due to simple zero point correction with a magnet
- Maximum operational safety – protection type IP69 enables operation in all areas
- Hygienic safety and good cleanability through use of FDA-compliant materials and hygienic process connections with  $R_a \leq 0.4 \mu\text{m}$



Application	Designation	JUMO TAROS S46 H
	Type	402071
	Special features	Electrolytically polished, $R_a \leq 0.4 \mu\text{m}$ ; FDA-compliant materials
	Areas of application	Food industry, CIP and SIP applications, sterilizers and autoclaves, pharmaceutical/medical/biotechnology, hygienic applications
Technical data	Parts in contact with the product	1.4404 and 1.4435 (316L)
	Electrical connection	Attached cable, round plug M12 × 1, cable socket, terminal head
	Measuring range	From 0 to 0.1 bar relative from 0 to 100 bar relative from 0 to 0.6 bar absolute from 0 to 40 bar absolute
	Medium temperature	-25 to +125 °C (maximum 140 °C for 1h/day)
	Output	4 to 20 mA, 2-wire DC 0 to 10 V, 3-wire DC 1 to 5 V, 3-wire DC 1 to 6 V, 3-wire
	Process connection	Clamp, VARIVENT®, JUMO PEKA (with EHEDG)
	Protection type	IP65 to IP69 (depending on the electrical connection)
	Accuracy	Up to 0.25 % of the measuring span at 20 °C
	Linearity	0.1 %
	Long-term stability	0.1 %
Voltage supply	DC 8 to 30 V	



# JUMO Wtrans p

The JUMO Wtrans p is a system for wireless acquisition of pressure measured values using state-of-the-art wireless technology. Universally applicable sensors enable measured value acquisition even on moving locations. As a result, they open up entirely new possibilities for measured value acquisition. The devices are particularly suitable for mobile, rotating, or even stationary applications – wherever interference-free transmission is required but cable laying is too costly.

The measured value is transmitted wirelessly to the receiver of the Wtrans system from where it is forwarded to measurement and control technology equipment such as controllers, automation systems, displays, or recording devices. In Europe, the system uses radio frequency 868.4 MHz. In the USA, Canada, Australia, New Zealand, and additional countries radio frequency 915 MHz is used. These frequencies are generally impervious to external interference influences and are also best suited to use in harsh industrial environments. Up to 16 transmitters can be connected to each receiver in any combination.



### JUMO Wtrans p - pressure transmitter with wireless measured value transmission



	Designation	JUMO Wtrans receiver	JUMO Wtrans p
Application	Type	902931	402060
	Mechanical and plant engineering	•	•
	Food and pharma industry	•	•
	Chemical	•	•
	Plastic	•	•
	Building technology	•	•
Technical data	Measuring range	Radio signal by transmitters	0.25 to 600 bar relative, absolute
	Medium temperature	-	-30 to +85 °C
	Accuracy	0.1 %	0.2 %
	Output	{0}4 to 20 mA 0 to 10 V relay	Radio signal to receiver
	Process connection	-	Thread; NPT; UNF; JUMO PEKA (with EHEDG)
	Frequency	868.4/915 MHz	868.4 MHz
	Transmission interval	-	0.5 to 3600 s
	Range	Up to 300 m when using the antenna wall mounting holder for the receiver and 3 m antenna cable	
Voltage supply	AC 110 to 240 V; AC/DC 20 to 30 V	Lithium battery 3.6 V	

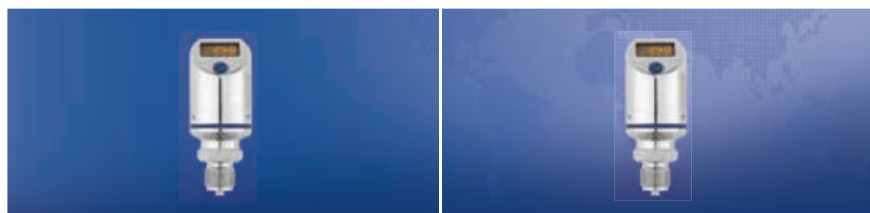


# JUMO DELOS series

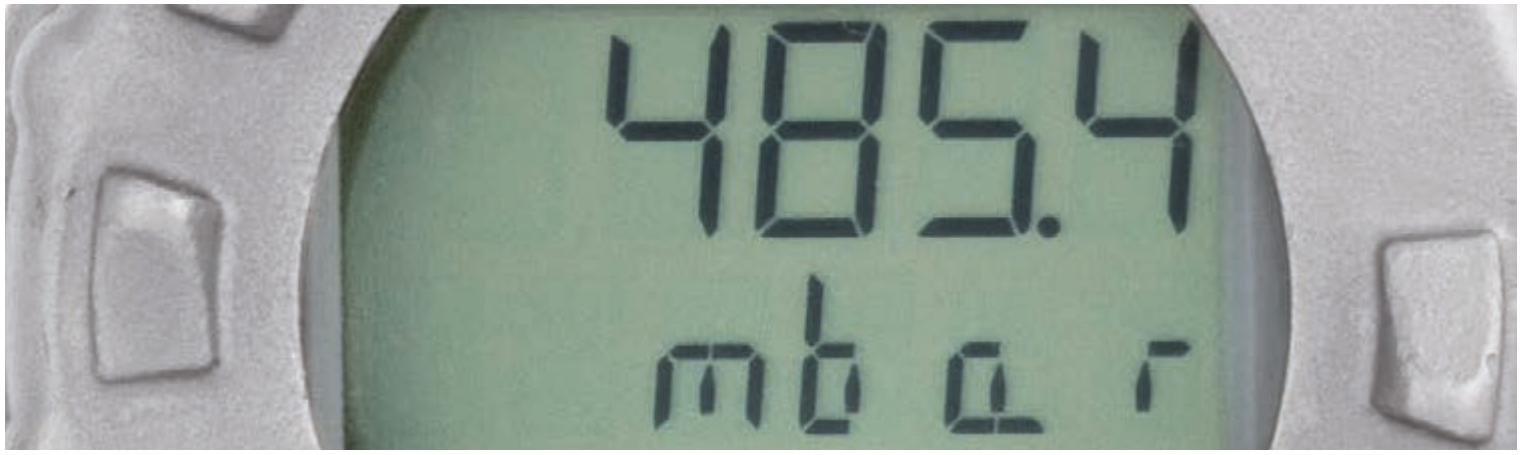
Reduced costs due to measuring range scaling: the JUMO DELOS series allows various measuring tasks to be performed with one device. Configuration is performed directly at the device or by using an easy-to-use setup program. The large, illuminated LCD display visualizes the setting parameters during configuration. During operation, the current measured value and the switching contact status are displayed. To improve readability you can rotate the device itself by  $\pm 160^\circ$  and the display by  $180^\circ$  (e.g. when installed overhead). Its easy-to-clean design and front-flush sealless measuring system make the JUMO DELOS series suitable for hygienic applications as well.



### Precision pressure transmitter with switching contact and display



	Precision transmitter	Pressure, level	High pressure	
	Designation	JUMO DELOS SI	JUMO DELOS HP	
	Type	405052	405054	
Application	Food and pharma industry	•		
	CIP and SIP systems	•		
	Mechanical and plant engineering	•	•	
	Refrigeration and air conditioning system construction	•		
	Hydraulic units		•	
	Special features	Programmable; switching output; measuring range scaling 1:4; selectable measuring unit; housing and process connection made of stainless steel (316L)	Programmable; switching output; measuring range scaling 1:4; selectable measuring unit; housing and process connection made of stainless steel	
	Technical data	Measuring range	400 mbar to 60 bar relative, absolute	160 to 600 bar relative
		Medium temperature	-25 to +200 °C	-25 to +100 °C
Ambient temperature		-25 to +75 °C		
Accuracy (linearity)		0.1 to 0.15 %	0.1 %	
Output		1x PNP switching output, 2x PNP switching output, 1x PNP switching output, and 1x analog output (either: 0(4) to 20 mA, 0 to 10 V)		
Process connection		Thread; hygienic connections (with EHEDG); diaphragm seal; JUMO PEKA (with EHEDG)	Thread	



# JUMO dTRANS p02/p20 series

The highest precision with simple operation – that is what the programmable pressure transmitter from JUMO offers you. You will find the optimum solution to all your tasks whether it involves pressure, differential pressure, level, or flow. We provide an extensive selection of process connections and special approvals.



## Convenient operation with minimal effort

JUMO setup program for the HART® interface



Parameterizing a device with the setup program



Recording measured values

### JUMO dTRANS p02

Process pressure transmitter  
Type 404385



### JUMO dTRANS p20

Process pressure transmitter  
Type 403025



### Startup in just a few easy steps

You can perform startup quickly and easily with the rotary knob or the membrane keys.

The devices are also easy to operate at any time in an Ex-area. The user does not even have to open the housing.

### Essential device features:

- Clear LCD display as a standard feature
- High accuracy and stability
- Low temperature drift
- Reduced stockkeeping due to variable setting on the device
- High temperature range
- Sturdy aluminum or stainless steel case

### Our setup programs offer numerous functions for operation via interface:

- Convenient parameterization for all device parameters
- Saving or printing parameters for project documentation
- Actual values and device status are displayed clearly online
- Monitoring and documentation of measured pressure values and sensor temperature for a prolonged period
- All status messages are displayed in plain text



## Process pressure transmitter series JUMO dTRANS p02



	Designation	JUMO dTRANS p02	JUMO dTRANS p02 DELTA	JUMO dTRANS p02 Keramik	
Application	Type	404385	404382	404387	
	[Ex d]				
	[Ex ia]	•	•		
	Process pressure	•		•	
	Differential pressure		•		
	Flow		•		
	Level	•	•	•	
	Special features	Maximum precision, programmable, stainless steel sensor, aluminum case		Maximum precision, programmable, ceramic sensor, aluminum case	
Technical data	Measuring range	20 mbar to 600 bar relative, absolute	12 mbar to 25 bar DP		
	Medium temperature	-40 to +200 °C	-40 to +120 °C	-40 to +100 °C	
	Accuracy (linearity)	0.1 %			
	Output	4 to 20 mA 2-wire; HART®			
	Process connection	Thread; hygienic connections (with EHEDG); JUMO PEKA (with EHEDG); diaphragm seal	2x 1/4-18 NPT, pressure separators	Thread, clamp, taper socket	
	Approvals	-	ATEX	-	





## Process pressure transmitter series JUMO dTRANS p20

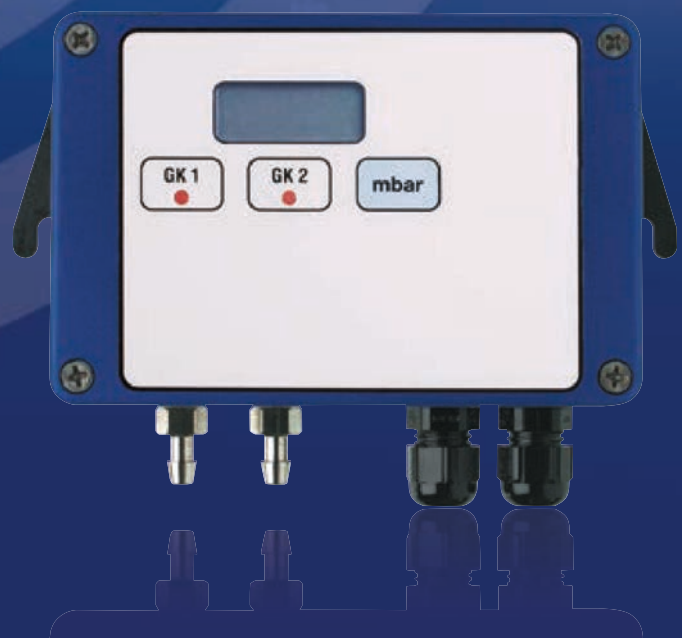
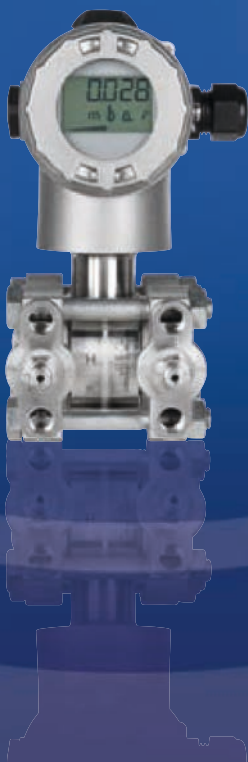


	Designation	JUMO dTRANS p20 JUMO dTRANS p20 Ex d	JUMO dTRANS p20 DELTA JUMO dTRANS p20 DELTA Ex d
Application	Type	403025/26	403022/23
	[Ex d]	•	•
	[Ex ia]	•	•
	Process pressure	•	
	Differential pressure		•
	Flow		•
	Level		•
	Special features	Maximum precision, programmable, stainless steel sensor, stainless steel case	
Technical data	Measuring range	60 mbar to 600 bar relative, absolute	1 mbar to 100 bar DP
	Medium temperature	-40 to +200 °C	-40 to +110 °C
	Accuracy (linearity)	0.05 %	0.07 %
	Output	4 to 20 mA 2-wire, HART®	
	Process connection	Thread; hygienic connections (with EHEDG); JUMO PEKA (with EHEDG); diaphragm seal	2x 1/4-18 NPT, pressure separators
	Approval	DNV GL, ATEX	ATEX



# JUMO differential pressure transmitters

Our differential pressure transmitters are the ideal solution for measuring absolute pressure, differential pressure, flow, and level. Their versatility and uncomplicated operation make them ideal for use in Ex areas as well as for less critical applications.



### JUMO differential pressure transmitter



	Designation	Multirange pressure and differential pressure transmitter	Pressure and differential pressure transmitter	JUMO MIDAS DP 10	JUMO dTRANS p02 DELTA	JUMO dTRANS p20 DELTA
Application	Type	402005	404304	401050	404382	403022/403023
	[Ex d]					•
	[Ex ia]				•	•
	Gas	•	•	•	•	•
	Liquid			•	•	•
	Heating, air conditioning technology	•	•	•	•	•
	Filter monitoring	•	•	•	•	•
	Pump control			•		
	Differential pressure	•	•	•	•	•
	Flow		•		•	•
	Level				•	•
	Special features	Measuring range adjustable, with LCD display as an option	With switching contacts, very small measuring ranges, adjustable, with LCD display as an option	For liquid and gaseous media	Maximum precision, programmable, aluminum case	Maximum precision, programmable, stainless steel case
	Technical data	Measuring range (min./max.)	2.5 to 100 mbar DP, relative	0.50 to 1200 mbar DP, relative	0.4 to 16 bar DP, relative	12 mbar to 25 bar DP, relative
Medium temperature		-10 to +50 °C	-10 to +50 °C	-15 to +100 °C	-40 to +120 °C	-40 to +110 °C
Accuracy (linearity)		2 %	1 %	0.5 %	0.1 %	0.07 %
Output		{0}4 to 20 mA 3-wire, DC 0 to 10 V 3-wire	4 to 20 mA 2-wire, 0 to 20 mA 3-wire, DC 0 to 10 V 3-wire	4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire	4 to 20 mA 2-wire, HART®	
Process connection		Hose connection	Thread, hose connection	G 1/8" internal thread, stainless steel socket, compression fitting	2x1/4-18 NPT, pressure separator	



# JUMO CANtrans series

Our CANtrans series transmitters are the first choice for applications with CANopen networking. The IP67 protection type and high vibration resistance of the compact and robust sensors also ensure maximum process reliability. In conjunction with the safety mechanisms of the CAN protocol, the built-in sensor monitoring ensures extremely reliable measured value acquisition. The standardized interface also allows simple integration of the sensors in all CANopen plants.



## JUMO CANtrans series for CANopen systems



		JUMO CANtrans p Ceramic	JUMO CANtrans p
Application	Designation	JUMO CANtrans p Ceramic	JUMO CANtrans p
	Type	402055	402056
	Pressure	•	•
	Special features	Programmable, ceramic sensor, device profile DS 404	Programmable, stainless steel sensor, device profile DS 404
Technical data	Measuring range	1.6 to 100 bar relative	0.25 to 600 bar relative, absolute
	Medium temperature	-20 to +85 °C	-40 to +200 °C
	Accuracy (linearity)	0.5 %	
	Output	CANopen	
	Process connection	Thread	Thread; hygienic connections (with EHEDG); JUMO PEKA (with EHEDG)



# JUMO dTRANS p35

Long plant downtimes now belong to the past. The new JUMO pressure sensors with IO-Link provide an integrated diagnostic function. It helps you to better plan sensor replacement, and thereby also the availability. Time-consuming parameterization when exchanging sensors is no longer required as the necessary data is transferred from the higher-level system.



## Sensors that have a say!

### Your benefits in a nutshell:

- Optimization of the production process through communication down to the lowest field level
- Reduction of mounting and startup times
- Increase of plant efficiency due to maximum transparency down to the sensor level
- Reduction of maintenance and service costs with simultaneous increase in plant availability
- High degree of process reliability due to long operating life and great accuracy
- Flexible use through compact design type and a variety of process connections

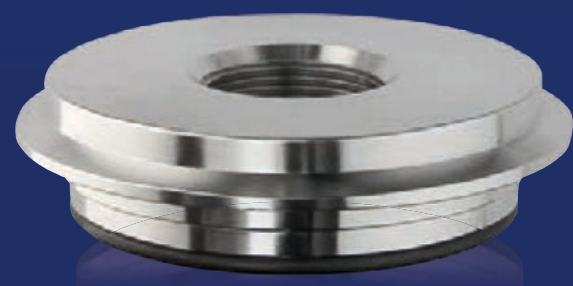


	<b>Designation</b>	<b>JUMO dTRANS p35 Pressure sensor with IO-Link</b>
<b>Application</b>	<b>Type</b>	402058
	<b>Features</b>	Fastest data transfer rate: COM 3, clearly assignable due to IO-Link
	<b>Areas of application</b>	Food industry, mechanical and plant engineering, packaging industry, process automation
<b>Technical data</b>	<b>Measuring range</b>	400 mbar to 600 bar relative, absolute
	<b>Medium temperature</b>	-25 to +125 °C
	<b>Ambient temperature</b>	-40 to +85 °C
	<b>Output</b>	IO-Link device V 1.1 (downward compatible to IO-Link V 1.0); 2 outputs for switch operation (SIO mode; SIO = standard IO)
	<b>Data transfer rate</b>	COM 3 (230.4 kBaud)
	<b>Process connection</b>	Commercially available screw connections and hygienic process connections (with EHEDG)
	<b>Protection type</b>	IP65, IP67
	<b>Cycle time</b>	2 ms
	<b>Special features</b>	Compact design type



# JUMO PEKA and pressure separators

To protect the pressure sensor and therefore safeguard the process, diaphragm seals – either with or without capillary lines – can be applied as a connection between the measuring device and the medium. This is used, for example, to maintain material resistance with aggressive media or for medium temperatures above 200 °C. In addition to diaphragm seals, which can achieve the lowest possible surface roughness, the JUMO PEKA system is also available for hygienic applications. It has been designed according to hygienic guidelines.





### JUMO PEKA and pressure separators



**JUMO Dtrans T100**  
Screw-in RTD temperature probe without/with transmitter  
Type 902815



**JUMO tecLine CR-4P**  
Conductive four-electrode conductivity measuring cell  
Type 202930



**JUMO DELOS SI**  
Precision pressure transmitter with switching contact and display  
Type 405052

**JUMO dTRANS p02**  
Process pressure transmitter  
Type 404382



**JUMO PEKA**  
Process connection adapter system  
Type 409711



**Diaphragm seal with flange connection according to ANSI B 16.5**

With form RF sealing strip  
Type 409786



#### JUMO PEKA

The process connection JUMO PEKA allows the measuring device (for different physical measuring values or electrolytic conductivity) to be connected to an application-specific process connection adapter (clamp, VARIVENT®, aseptic, or orbital welding socket). Based on an easy-to-clean design without cavities, the modular adapter system is specifically tailored to the requirements of hygienic processes. The rigid adaptor with rotatable adapter allows alignment of the measuring device and protects the flush-mounted O-ring from damage during installation. The thread allows the measuring device to be installed and removed unlimited times which simplifies mounting, cleaning, and repair work.

#### Pressure separator

Diaphragm seals, as extended process connections, protect the measuring device and its sensor from difficult environmental influences such as media that is contaminated, highly viscous, thickening (curdling), highly corrosive, toxic, and hot. Pressure separators can also be used for installation points that are difficult to access. In such cases, the pressure is transmitted to the sensor via a capillary line (capillary) filled with filling oil.

JUMO offers 2 basic designs: membrane and inline pressure separators. The possible combinations for diaphragm material (stainless steel, titanium, PTFE, etc.) and filling oil (silicone oil, high temperature oil, vegetable oil, etc.) are so versatile that they can also be used in hygienic applications.

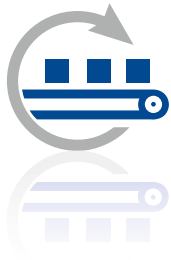


# Services & Support

It is the quality of our products that is responsible for such a high level of customer satisfaction. But our reliable after-sales service and comprehensive support are also valued. Let us introduce you to the key services we provide for our innovative JUMO products. You can count on them – anytime, anywhere.

**JUMO Services & Support – so that it all comes together!**

## Manufacturing Service



Are you looking for a competitive and efficient system or component supplier? Regardless of whether you seek electronic modules or perfectly fitting sensors – either for small batches or mass production – we are happy to be your partner. From development to production we can provide all the stages from a single source. In close cooperation with your business our experienced experts search for the optimum solution for your application and incorporate all engineering tasks. Then JUMO manufactures the product for you.

As a result you profit from state-of-the-art manufacturing technologies and our uncompromising quality management systems.

### Customer-specific sensor technology

- Development of temperature probes, pressure transmitters, conductivity sensors, or pH and redox electrodes according to your requirements
- A large number of testing facilities
- Incorporation of the qualifications into application
- Material management
- Mechanical testing
- Thermal test



### Electronic modules

- Development
- Design
- Test concept
- Material management
- Production
- Logistics and distribution
- After-sales service



### Metal technology

- Toolmaking
- Punching and forming technology
- Flexible sheet metal machining
- Production of floats
- Welding, jointing, and assembly technology
- Surface treatment technology
- Quality management for materials





## Information & Training



Would you like to increase the process quality in your company or optimize a plant? Then use the offers available on the JUMO website and benefit from the know-how of a globally respected manufacturer. For example, under the menu item "Services and Support" you will find a broad range of seminars. Videos are available under the keyword "E-Learning" about topics specific to measurement and control technology. Under "Literature" you can learn valuable tips for beginners and professionals. And, of course, you can also download the current version of any JUMO software or technical documentation for both newer and older products.

## Product Service

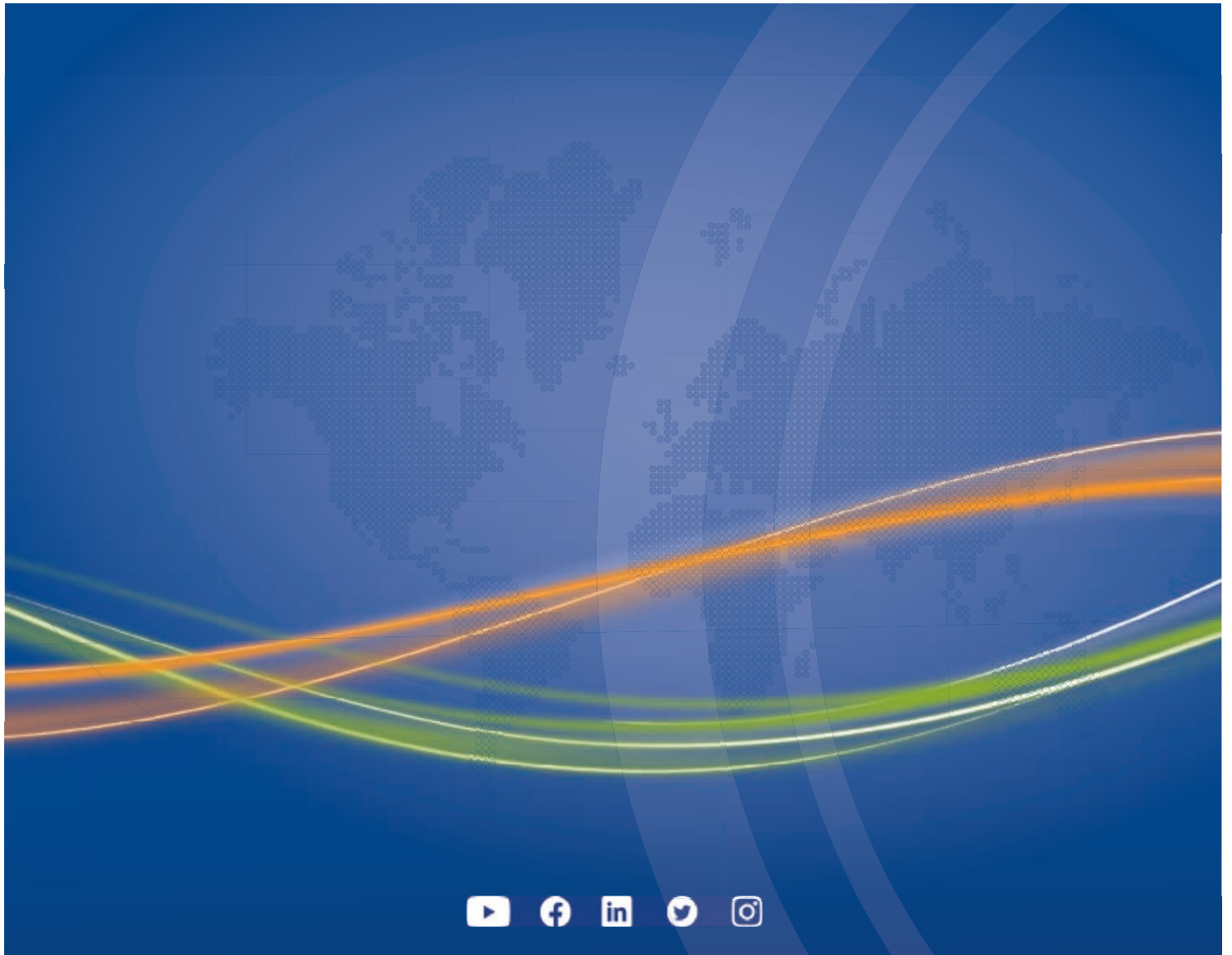


We have an efficient distribution network on all continents available to all of our customers so that we can offer professional support for everything concerning our product portfolio. Our team of professional JUMO employees is near you ready to help with consultations, product selection, engineering, or optimum use of our products. Even after our devices are commissioned you can count on us. Our telephone support line is available to give you answers quickly. If a malfunction needs to be repaired on site our Express Repair Service and our 24-hour replacement part service are available to you. That provides peace of mind.

## Maintenance & Calibration



Our maintenance service helps you to maintain optimum availability of your devices and plants. This prevents malfunctions and downtime. Together with the responsible parties at your company we develop a future-oriented maintenance concept and are happy to create all required reports, documentation, and protocols. Because we know how important precise measurement and control results are for your processes we naturally also professionally calibrate your JUMO devices – on site at your company or in our accredited DAkkS calibration laboratory for temperature. We record the results for you in a calibration certificate according to EN 10 204.



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