### Germany-Jiumo, VAISALA

· Process monitoring instruments VAISALA



· Environmental monitoring

High-precision temperature and humidity sensor military-grade differential pressure sensor wireless data logger

·Instrumentation

Liquid level/material level monitoring instrument flow meter online monitor pressure detection/transmitter



Temperature detection, temperature controller pH meter













### industrial temperature sensor, Plant engineering and vehicle engineering

JUMO has been manufacturing high-quality RTD temperature probes andthermocouples since the mid-1960s. Temperatures below about 500°C are generally measured with RTD thermal resistors. High measurement accuracy and long-term stability are ensured by a platinum temperature sensor. Thermocouples are suitable for measuring higher temperatures. There are L, ", K, N, S or B type thermocouples available upon request. The in-house DAKKS laboratory and our own temperature sensor film production facilities strengthen JUMO' s expertise and offer our customers maximum flexibility. JUMO is currently one of the world's leading manufacturers in this field.

### Mechanical and electrical temperature

JUMO's decades of experience in manufacturing electromechanical thermostats and dial thermometers make it a reliable partner. Our devices can easily acquire and control temperature without the need for auxiliary power, making these devices the standard across industries. The product range ranges from mass-produced products to individual customer solutions produced on a small scale.

# Thermocouple and RTD temperature probes with junction box or connecting cable

Model:901020,901030,901120,902020, 902023902030,902120,902123,902820,901150. 901190,901210,902050,902150,902153902190, 902210,90,2350



### RTD temperature probe with head

Model: 902040, 902044



# Indoor, outdoor and channel RTD temperature probes

Model:902520



### Platinum disc temperature sensor according to DINEN60751

Model:906121,906122,906123. 906124,906125



## RTD temperature probe with wireless data transmission

Model:902930,902931.707060



### RTD Temperature Probes for Industrial

Model:902424,902425,902434,902435.902810. 902815.902915.902940



### JUMO plastoSENS T01/02/03

Motion-resistant, surge-proof and vaporsealed plastic temperature probe

Model:904001.904002.904003



# Panel-mounted, surface-mounted temperature switches EM series heatTHERM series

Model:602021.603070



### dial thermometer





### From sensor to modular multi-channel measuring device

Water is the basis of all life on earth. When you consider that about 70% of the Earth's surface is covered by sea water, you're going to make the most of it. However, the water is not evenly distributed and is not suitable for immediate use in every state. This places extensive demands on measurement technology. Whether drinking water, swimming pool water, tap water, ultrapure water, domestic water, process water or cooling water, each sector has its own

Thin film and optical sensors requirements in terms of sensors and equipment for measuring critical quality parameters. Before water can be used, it often needs to be treated with chemical additives or brought to the desired state Analytical measurement sensors and controllers implement these steps in an established way. From single-channel track-mounted transmitters to multi-

channel controllers and recorders, users have a variety of options based on their needs and more. JUMO CTI-500 and JUMO CTI-750 electromagnetic conductivity transmitters. JUMO has earned a permanent place among manufacturers and operators in the food and beverage industry. JUMO products always comply with special hygiene requirements.

## JUMO ecoLine/BlackLine/tecLine/tecLine HD pH and redox electronic board

Model:201005,201020,201021.201030,201050



Residual ammonia, total chlorine, dioxide, oxygen, hydrogen peroxide, peracetic acid, ammonia, bromine, turbidity and dissolved oxygen

Model:201040.202610.202613.202630.202631. 202634 202636202637 202670



# JUMO eCOTRANS Lf 01/02/03. Jumo ecotrans ph 03

Transmitter with relay Model:202723,202731.202732

#### JUMO ecoLine/BlackLine/tecLine/ digil ine

Electrode and electromagnetic conductivity sensors

Model:202706.202707.202708,202709. 202922202923,202924.202925.202930, 202941202942 202943



#### JUMO CT1-500750

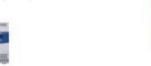
Electromagnetic signal rate and concentration transmitter

Model:202755.202756



### JUMO AQUIS 500 PH/CR/CVAS

Transmitter Controller Wall and Panel Mounting Model:202560.202565,202566.202568



### JUMO dTRANS PHVCR/AS 02

Transmitters and regulators Model:202551.202552.202553



### JUMO AQUIS touch P/s

Multi-channel modular transmitter with recording function Model:202580,202581







### Quality comes from details

A key part of automation technology is the highly accurate and reliable recording of process pressures. Continuous pressure monitoring has broad application prospects, ensuring process reliability and improving product quality.

Our proven production technology allows us to ensure all quality processes and increase product flexibility. This in turn allows us to give special consideration to customer requirements and application-oriented conditions. In addition to low measurement values in the standard range, pressures up to 600bar can also be recorded. We offer a variety of outputs including analog signals as well as HART@ or bus communication. The wide range of possible electrical and process connections makes the pressure transmitter suitable for almost every application.

JUMO's pressure transmitters are widely used in industrial compressors, high-pressure equipment, heating/refrigeration/air conditioning industries, food and chemical industries, and clean rooms. These devices offer application-oriented approvals such as ATEX or DINV GL, depending on the industry's operation.

### Pressure measuring element

Model:404410,405101



### JUMO DELOS series

Pressure Transmitters Model:405052,405054



### JUMO dTRANS p20 series

Pressure and differential pressure transmitters Model: 403022, 403023, 403025, 403026

### JUMO MIDAS series

Pressure Transmitters Model: 401002, 401005, 401008, 401009401010, 401011.401012.401020.401021401050.404710



### JUMO dTRANS p30 series

Pressure Transmitters Model: 402050, 402058, 404366, 404753



### JUMo Wtrans p

Pressure transmitter with wireless data transmission Model:402060



### Strong gland seal

Model: 409772, 409774, 409776, 409778, 409780.409782.409784





### Hydrostatic level measurement: Pressure as a means to an end

When performing liquid level measurements, pressure measuring devices communicate according to the principles of hydrostatics. Hydrostatic pressure is generated in the liquid by the column of liquid located above the sensor and is always proportional to the depth of immersion of the sensor. Depending on the measurement tasks, pressure measurement devices are designed. Level probes and pressure measuring devices are specially developed for mining. Liquid levels can be used in open tanks or open water. The rack purification device of a water plant is an application example. The JUMO MIDAS DP10 and JUMO TRANSp20 DELTA differential pressure measuring devices are the preferred solutions for sealed vessels. For hygienic reasons, the level can also be recorded externally using relative or differential pressure measuring devices. Model:405052,403025,403026 Float switches are used for liquid level measurement, and float level transmitters are used for quasicontinuous level measurement of liquids. The measuring principle is based on Archimedes' principle and is applicable to any container. In addition to terminal equipment, JUMO also supplies mechanical floats for the production of float switches.

# JUMO MAERA Series Submersible level gauge

Model: 401015, 402090, 404391, 404392, 404393



### JUMO DELOSSI and JUMO dTRANS p20

Pressure transmitter with display suitable for



### JUMO dTRANS p30 series

Pressure Transmitters Model:404366.404753



### JUMO MIDAS DP10 and dTRANS p20 DELTA

Differential pressure transmitter is suitable for sealed tanks Model:401050,403022,403023









### Precision flow measurement for continuous monitoring and control

JUMO helps you design safely through expertise and sensor long-term stability and accuracy. Depending on the application, we can provide suitable flow sensors for liquids, gases or vapors. We can also provide ATEX certified products if required. If applicable to corresponding evaluation devices and controllers, these devices allow the flow to be measured, displayed, controlled or recorded The JUMO product range includes a wide range of equipment. Orifice plates and probes offer a wide variety of devices. When these are used in conjunction with differential pressure transmitters, they also provide optimal measurement accuracy. We offer electromagnetic flowmeters, especially for liquid flow measurement. These devices are developed for industrial and sanitary applications. They are particularly flexible and can be used with various nominal widths, measuring tubes, materials and process connections.

### JUMO HOWTRANS MAG SO1

Industrial electromagnetic flowmeter Model:406012



## JUMO dTRANS p02/p20

Differential pressure transmitter Model:404382,403022.403023



Sanitary electromagnetic flowmeter model: 406015



### JUMO PINOS LO2

Thermal flow sensor Model:406041



# JUMO HOWTRANS MAG 102 MID

Flow transmitter model: 406011



### Vortex flow meter

Model: 406020



### Flow Sensors





#### **Humidity measuring probe**

As a leading manufacturer of measurement and control technology, JUMO also offers a wide range of measurement technology products for air humidity and CO2 concentration measurement in the air conditioning and ventilation sectors as well as in building automation. Depending on the application, capacitive humidity sensor technology can be used in various measuring probes. Humidistats can also be used as pure switching devices. The carbon dioxide concentration measuring probe uses a proven infrared technology.

Very high-quality and powerful microprocessorcontrolled measuring probes are used for complex industrial measurement tasks. They can also be used to output additional measured values such as absolute Industrial temperature and humidity humidity, dew point temperature, mixing ratio, etc. humidity, dew point temperature, mixing ratio, etc. Its outstanding features include stable and reliable measurement, high measurement accuracy, traceable measurement results, and multiple parameter configurations based on the measurement probe.

Devices with intelligent interchangeable probes, devices with intrinsically safe measuring probes for field applications, and devices with wireless data transmission round out the product range.

#### Temperature and humidity sensor

Applications in air conditioning and ventilation technology Model:907020



Model:907023



# Remote humidity sensors for climate onitoring and

Carbon dioxide concentration measurement probe model: 907021



Intrinsically safe industrial measuring probes for measuring humidity, temperature and derived variables





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Devices with intelligent interchangeable probes, devices with intrinsically safe measuring probes for field applications, and devices with wireless data transmission round out the product range. Reliable after-sales service, providing maintenance and calibration services. Become a partner in humidity measurement technology with JUMO and you will get the best solutions.

#### Temperature and humidity sensor

Applications in air conditioning and ventilation technology Model:907020



## Industrial temperature and humidity measurement probe

Model:907023



#### Capacitive Humidity Sensor Smart Interchangeable Probe

Model:907027



1154

### JUMO Wtrans E01

Humidity, temperature and carbon dioxide concentration probe with wireless data transmission
Model:902928

## Remote humidity sensors for climate onitoring and

Carbon dioxide concentration measurement probe model: 907021



# Intrinsically safe industrial measuring probes for measuring humidity, temperature and derived variables

Model:907025



### **Zhan Humidity Sensor**

Model:907031.907032





### programmable electronic controller

Highly accurate control of temperature, pressure, humidity, level and other measuring ranges plays a vital role in modern industrial and process applications. We have a wide range of electronic controllers, ranging from single channel to multi-channel screen control for users to choose from. We can provide customers with reasonable solutions to meet their control needs. The built-in self-tuning system can quickly and accurately help customers set reasonable PID parameters. The universal input interface can connect many kinds of sensors to provide customers with high application capabilities. User-selectable communication interfaces integrate management and control systems to meet today's automation technology needs.

### Mechanical temperature switch

Mechanical temperature switches are used in the heating and air conditioning industry as well as in building automation. Temperatures in various processes can be controlled without the use of auxiliary power supplies. In industrial applications, explosion-proof surface-mounted temperature switches enable maximum temperature control of heating cables. Here, temperature switches stand out for their resistance to electromagnetic interference.

#### JUMO IMAGO 500

Multi-channel process and program controller Model: 703590



#### JUMO ATRON

Compact controller with programmable function Model: 703041



### **JUMO ATRON**

Compact controller with programmable function Model: 703041





### Panel mounted temperature switch

EM series Model:602021



### JUMO DICON touch

Dual-channel process and program controller with paperless recording and touch screen Model: 703571





### JUMO diraTRON

Compact controller model: 702110



### JUMO exTHERM-AT

Explosion-proof surface-mounted clarity switch model: 605055



### JUMO trosttherm-at/-dr/-ate

Antifreeze temperature switch Model:604100.604170









### Document, visualize, evaluate and archive

The recording and archiving of measurement data especially when obligations to provide evidence must be fulfilled - have always been part of JUMO's measurement technology and product portfolio. The paperless recorder is a high-quality product that replaces the paper recorder. They have made great strides in factory visualization, monitoring capabilities and web server connectivity.

### JUMO LOGOSCREEN 601

In addition to the 5.7-inch touch screen, the series also offers various digital interfaces, up to 6 universal inputs, batch processing recording reports, factory visualization and limit value monitoring functions.

### JUMO LOGOSCREEN 700

The flagship product among recorders is highly scalable Model:705060 and can be equipped with up to 18 measurement inputs. It can also generate 10 customer-defined process screens and up to 5 batch reports. JUMO recorders comply with FDA 21CFR Part 11 requirements for electronic recording of process data and utilize the latest hashing algorithms to protect data against tampering.

### **JUMO MTRON T**

Measurement, control and automation systems provide comprehensive documentation capabilities. This creates a distributed acquisition system and archiving of up to 54 analog measurement channels and 54 digital channels.

### JUMO LOGOSCREEN 601

Touch screen paperless recorder Model:706520





#### **JUMO MTRONT-Multifunctional** operating panel 840

Measurement, control and



### JUMO LOGOSCREEN 700

Highly expandable paperless recorder Model:706530



### JUMO MTRON T-CPU

Measurement, control and automation system with controller module and input and output modules Model: 705000





### Gate power controller and solid state relay

In many electric heating systems, solid-state relays ensure lossless switching operation at high currents and therefore play a key role in ensuring high heater availability. There are advantages to using JUMO TYA 200 in thermal applications, where precise control of the electric heat output is crucial for product quality and ensuring energy efficiency.

#### **Temperature Transmitter**

The JUMO dTRANS T series offers the right transmitter for your specific application. Whether the transmitter is mounted in the probe junction box or on a mounting rail, it converts the temperature of the connected sensor into a precise standard signal for further processing in the production plant. The JUMOdTRANS T09 cable transmitter is ideal for factory upgrades or retrofits. JUMO dTRANS T06 Ex is used in safety-related areas (SIL/PL) and Ex applications. In Ex areas, the Ex-i supply and input isolation amplifiers ensure safe isolation between Ex and non-Ex areas.

### Digital display

The digital display accurately displays process values, allowing you to pay close attention to important parameters that are critical to a smooth production process.

### JUMO TYA 200 Series

Single-phase and three-phase power controllers Model: 709061, 709062, 709063



### EtherCAT.

### JUMO dTRANS TOS

Intelligent two-wire transmitter Model:707050,707051



### JUMO ITRANS TO6J.TO6,TO6Ex

Multifunctional four-wire guide rail mounting transmitter model: 707071.707071.707075



### **JUMO ATRANS TO9**

Cable transmitter model: 707090



### JUMO TYA 432

Garden state relay Model:709010.709020



### safety barrier

Model:707530



### JUMO dTRANS TOI HARTO/EX

Two-wire smart transmitter Model:707013,707016



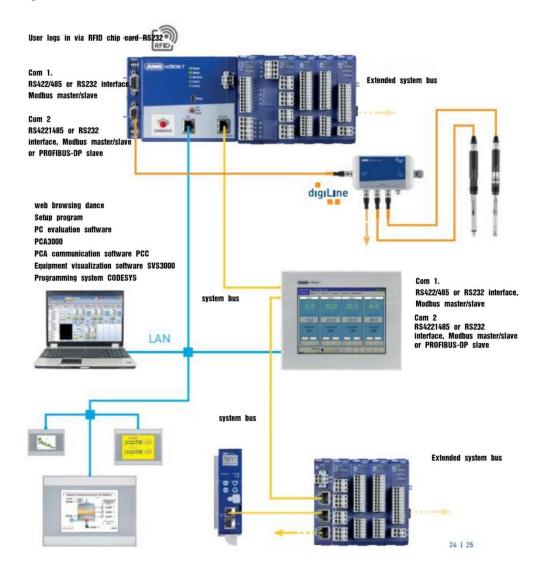


### JUMO diraVIEW

Digital display Model:701510



## system structure





### Monitoring using electronic safety temperature limiters and monitors and electromechanical thermostats

Electronic temperature monitoring is crucial in many applications, especially for safety-related temperature monitoring of special system equipment. When actual temperatures exceed specified limit values, this can cause significant harm to people, the environment, products and production systems. JUMO SafetyM series products avoid such dangers by providing sophisticated electronic temperature limiters and monitors. Advantages of SIL-certified devices: This range of products ensures a safe and error-free shutdown of the device if the maximum or minimum temperature specified at the factory is exceeded or fell below.

In applications where auxiliary power cannot be provided to power electronic components, electromechanical thermostats perform their tasks reliably and thus play a vital role in ensuring safe production equipment or equipment design. The thermostat operates according to the principle of liquid expansion: the liquid in the measuring system expands when heated, and the transmission activates a microswitch, which then safely shuts down the system.

### JUMO safetyM STB/STW EX

Safety temperature limiters and monitors Complies with DINEN 14597 and ATEX certified models: 701150, 701155



### surface mount temperature switch

ATH series model:603021



### Panel thermostat

EM series, heatTHERM series model: 602021.602030, 602031



### Double gold hidden temperature switch

Model:608301



### JUMO safetyM TB/TW 08

Temperature limiter and monitor according to DIN EN 14597 Built-in and DIN rail device model number: 701160701170



### **JUMO heatTHERM-AT**

Surface Mount Temperature Switch Model: 603070



### JUMO frostTherm-AT/-ATE

Antifreeze temperature switch model: 604100, 604170



### dial thermometer

