

**JUMO GmbH & Co. KG**

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

**JUMO Instrument Co. Ltd.**

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

**JUMO Process Control, Inc.**

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



## Intrinsically Safe Industrial Measuring Probes for Humidity, Temperature, and Derived Variables

- The hygrothermal transducers measure the relative air humidity and temperature
- The calculations of dew point, absolute humidity, mixing ratio, and wet bulb temperature are possible as options
- New user-friendly, modular measuring probe concept
- Intelligent exchange probes that save all calibration coefficients
- Safe operation of the complete device in zones of category 1G/zone 0 as well as 1D/zone 20 with protection cover
- Electrical intrinsically-safe design type
- Traceable to NIST (including certificate)



**The intrinsically safe industrial measuring probes are the first choice when it comes to humidity, temperature, and derived variables.**

These new intrinsically safe industrial measuring probes were developed to meet the need of providing precise and risk-free humidity monitoring in potentially explosive areas. This series sets completely new standards for easy installation and user-friendliness.

The modular add-on concept consists of four parts that can be separated from each other (wall holder, case bottom, electronic unit, and probe), thereby substantially simplifying installation, operation, and maintenance. Versatile uses for almost all applications are possible in connection with five exchangeable probes.

Now no recalibration of the measuring probe is necessary when replacing the probes as all calibration coefficients are already stored in the probe's memory itself and the coefficients are transmitted when connected to the central processing unit.

Otherwise, the probe design types do not differ from the established versions of the industrial series that offers 2 m, 5 m, or 10 m sensor lines. The special sensor head variants that permit use in an underpressure and overpressure range between 0 to 100 bar and at high process temperatures of up to 180 °C are also available.

The measuring probes are extremely robust and are based on the latest sensor technology.

They operate safely and reliably in areas with the constant explosion hazard of category 1 (zone 0).

Thanks to the microprocessor controlled electronics and a large number of options the measuring probes can be applied with a high degree of flexibility.

When ordering, the user can directly specify the configuration of the measuring probe. A subsequent change in the configuration when on location is also possible.

The optional software extension allows the integrated microprocessor to calculate absolute humidity variables such as dew point  $T_d$  (°C), absolute humidity  $a$  (g/m<sup>3</sup>), mixing ratio  $x$  (g/kg), and wet bulb temperature  $T_w$  (°C).

Per default, the intrinsically safe measured probes are equipped with an analog output (4 to 20 mA). In addition, a second analog output and an integrated LCD display/operating pad can be added as an option.

The connection to the voltage supply (DC 12 to 28 V) must be carried out via protection barriers or intrinsically safe power supply units that are available externally (see "Technical data") when used in potentially explosive areas.

All measuring probes are equipped with sensors that have the latest thin film technology. The continuous further development and improvement of these sensors is backed by over 20 years worth of experience.

The sensors particularly distinguish themselves through the highest precision, reliability, and stability.

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

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

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



## Technical data

### Design types

#### Basic type 907025/61

Intrinsically safe humidity and temperature measuring probe for wall mounting, operating temperature -40 to +60 °C

#### Basic type 907025/63

Intrinsically safe humidity and temperature measuring probe with small sensor head on a 2 m sensor line, operating temperature 40 to +120 °C

#### Basic type 907025/64

Intrinsically safe humidity and temperature measuring probe with a pressure-resistant stainless-steel sensor head on a 2 m sensor line for process pressures between 0 to 10 MPa (0 to 100 bar), operating temperature -40 to +180 °C

#### Basic type 907025/65

Intrinsically safe humidity and a temperature measuring probe with stainless-steel sensor head on a 2 m sensor line, operating temperature -40 to +180 °C

#### Basic type 907025/68 and 907025/68L (long version, shaft length 400 mm)

Intrinsically safe humidity and temperature measuring probe with a pressure-resistant stainless-steel sensor head on a 2 m sensor line for process pressures between 0 to 4 MPa (0 to 40 bar), sensor head with adjustable clamping screw connection; operating temperature -40 to +180 °C

#### Note:

The connection to the voltage supply (DC 12 to 28 V) when used in potentially explosive areas must be carried out via protection barriers or intrinsically safe power supply devices that are available externally. When used in category 1 (zone 0), an intrinsically safe power supply device (e.g. type STAHL 9160/13-11-11) must be used per channel.

When used in categories 2 + 3 (zone 1 + 2) safety barriers (e.g. STAHL 9001/51-280-091-141) are sufficient.

#### These devices are not included in the JUMO scope of delivery!

Further information can be found in the operating manual or in the Internet at [www.r-stahl.com/r-stahl-home.html](http://www.r-stahl.com/r-stahl-home.html)

### Measured values

#### Relative humidity

Measuring range 0 to 100 %rF

Accuracy (including nonlinearity and reproducibility)

for calibration against highly-precise, certified humidity standards

±1 %rF (0 to 90 %rF)

±2 %rF (90 to 100 %rF)

Salt solutions (ASTM E104-85)

±2 %rF (0 to 90 %rF)

±3 %rF (90 to 100 %rF)

Response time  $t_{0,9}$  at 20 °C

in still air (with sinter filter)

15 s

Humidity sensors:

HUMICAP®180 for standard applications

HUMICAP®180L2 for high chemical exposure

#### Temperature measuring ranges

-40 to +180 °C (depending on the selected probe)

Accuracy of the electronic parts at 20 °C, typical ±0.1 °C

Temperature dependency of the electronic parts 0.005 °C / °C

Temperature sensor Pt1000 class AA (1/3 DIN B) according to DIN EN 60751

#### Derived variables (option)

	With probe	With probes	
Typical measuring ranges	907025/S61	907025/S63, .../S64, .../S65, .../S68	
Dew point $T_d$	-40 to +60	-40 to +100	[°C]
Mixing ratio x	0 to 160	0 to 500	[g/kg dry air]
Absolute humidity a	0 to 160	0 to 600	[g/m <sup>3</sup> ]
Wet bulb temperature $T_w$	0 to 60	0 to 100	[°C]

(The accuracy of the derived variables depends on the accuracy of the humidity and temperature measurements as well as the respective working point.)

#### Outputs

2 analog outputs (one is standard, the other is optional) 4 to 20 mA (2-wire circuit technology)

Accuracy of the analog outputs at 20 °C 0.05 % of the end value

Temperature dependency 0.005 % / °C of the end value

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

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

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



## Ex-classifications (analog outputs)

### Europe/VTT

#### EU (94/9/EG, ATEX100a)

II 1G  
EEx ia IIC T4 Ga  
VTT 09 ATEX 028 X edition no.: 1  
 $U_{max.} = DC 28 V, I_l = 100 mA, P_l = 700 mW, C_l = 1 nF, L_l = \text{negligibly small}$   
 $T_{amb.} = -40 \text{ to } +60 \text{ }^\circ\text{C} (-40 \text{ to } +140 \text{ }^\circ\text{F}), P_{amb.} = 0.8 \text{ to } 1.1 \text{ bar}$   
II 1 D (IP65 T = 70 °C)  
VTT 04 ATEX 023X

#### Safety factors

#### Ambient conditions

#### Dust Ex-protection (with protection cover)

### USA (FM)

Classes I, II, III, section 1, groups A – G  
and section 2, groups A – D, F and G 1G  
FM project ID: 3010615

#### Safety factors

$U_{max.} = DC 28 V, I_{max.} = 100 mA, C_l = 1 nF, P_l = 0.7 W, L_l = 0 \mu H, T_{amb.} = 60 \text{ }^\circ\text{C} (140 \text{ }^\circ\text{F}), T_5$

### Japan (TIIS)

Ex ia IIC T4  
Code number: TC17897

#### Safety factors

$U_{max.} = DC 28 V, I_l = 100 mA, C_l = 1 nF, P_l = 0.7 W, L_l = 0 \mu H, T_{amb.} = 60 \text{ }^\circ\text{C} (140 \text{ }^\circ\text{F})$

### Canada (CSA)

#### Class I

Section 1 + 2, groups A – D

#### Class II

Section 1 + 2, groups G and coal dust

#### Class III

CSA document no.: 213862 0 000  
CSA report no.: 1300863

#### Safety factors

$T_{amb.} = 60 \text{ }^\circ\text{C}, T_4$   
Intrinsically safe when installing according to installations diagram DRW213478

### China (PCEC)

Ex ia IIC T4  
Certificate no. CE092145  
Standard GB3836.1-2000 and GB3836.4-2000

### IECEx (VTT)

Ex ia IIC T4 Ga  
VTT 09.0002x edition no.: 1

#### Safety factors

$U_{max.} = DC 28 V, I_l = 100 mA, P_l = 700 mW, C_l = 1 nF, L_l = \text{negligibly small}$

#### Ambient conditions

$T_{amb.} = -40 \text{ to } +60 \text{ }^\circ\text{C} (-40 \text{ to } +140 \text{ }^\circ\text{F}), P_{amb.} = 0.8 \text{ to } 1.1 \text{ bar}$

**JUMO GmbH & Co. KG**

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

**JUMO Instrument Co. Ltd.**

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

**JUMO Process Control, Inc.**

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

**General data**

Voltage supply DC 12 to 28 V  
When using the service interface DC 15 to 28 V  
Operating temperature range  
Electronic parts with LCD display -20 to +60 °C  
Storage temperature range -40 to +70 °C  
Connections Screw terminals 0.33 to 2.0 mm<sup>2</sup>  
Cable screw connection Pg11 for sensor line with Ø 5 to 12 mm  
Pipe sleeve Pg11/NPT 1/2"-14  
Case material G-AlSi10 Mg (DIN 1725)  
Case dimensions L 164 mm × W 115 mm × H 62 mm  
Case weight 950 g  
EMV According to EN 61326-1: 1997 + Annex 1: 1998  
(EN 61000-4-5 only when external surge protector is used)

**Probes**

907025/S61 Probe for wall mounting  
Temperature operating range -40 to +60 °C  
907025/S63 Probe in small design type  
Temperature operating range -40 to +120 °C  
907025/S64 Probe for high pressures  
Temperature operating range -40 to +180 °C  
Pressure operating range 0 to 10 MPa  
(0 to 100 bar)  
907025/S65 Probe for high temperatures  
Temperature operating range -40 to +180 °C  
907025/S68 and 907025/S68L Probe for pressure pipes  
Temperature operating range -40 to +180 °C  
Pressure operating range 0 to 4 MPa (0 to 4 bar)  
Probe cable diameter (all basic types) 5.5 mm  
Probe cable length 2 m (standard)  
5 m or 10 m (optional)

**Options**

Second analog output 4 to 20 mA (2-wire circuit technology)  
Case with display/control panel Two-line LCD display  
Character size (1st line/2nd line) 12 mm/10 mm  
Extension for derived variables Dew point temperature  $T_d$ , mixing ratio  $x$ , absolute humidity  $a$ , wet bulb temperature  $T_w$   
Sensor protection Sinter filter 38 µm out of acid-resistant, rust-free stainless steel AISi 316L (material-no. 1.4404), stainless steel grid AISi 316L (material-no. 1.4404), PPS grid with stainless steel mesh AISi 316 (material-no.: 1.4436), PPS grid

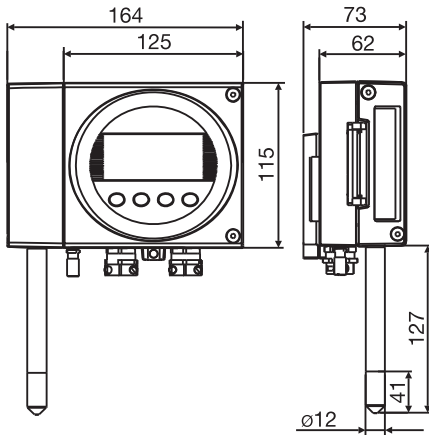
**JUMO GmbH & Co. KG**  
 Delivery address: Mackenrodtstraße 14  
 36039 Fulda, Germany  
 Postal address: 36035 Fulda, Germany  
 Phone: +49 661 6003-0  
 Fax: +49 661 6003-607  
 E-mail: mail@jumo.net  
 Internet: www.jumo.net

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

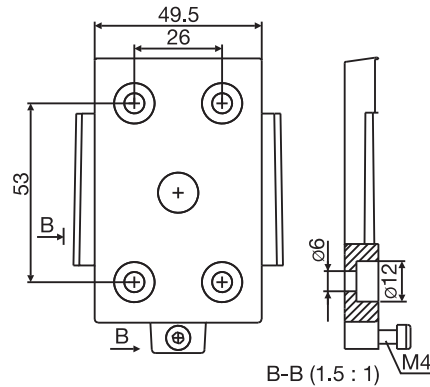
**JUMO Process Control, Inc.**  
 8 Technology Boulevard  
 Canastota, NY 13032, USA  
 Phone: 315-697-5866  
 1-800-554-JUMO  
 Fax: 315-697-5867  
 E-mail: info@jumo.us  
 Internet: www.jumo.us



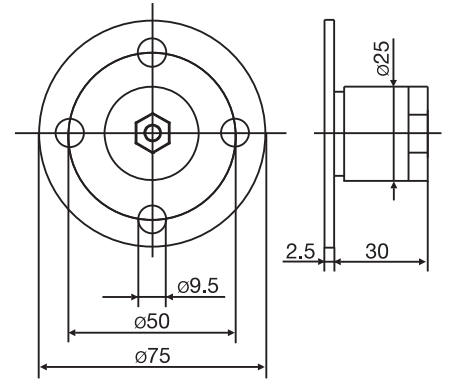
## Dimensions



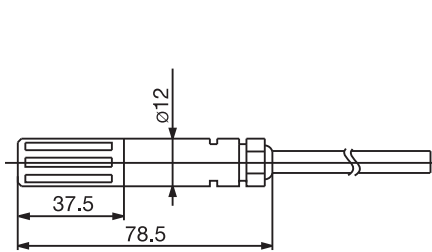
**Central processing unit with probe**  
 907025/S61  
 Basic type 907025/61



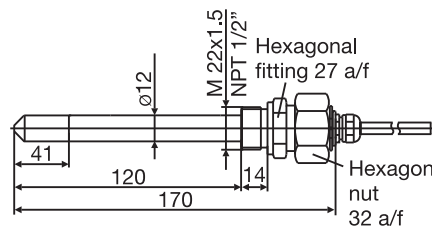
**Holder for wall mounting**



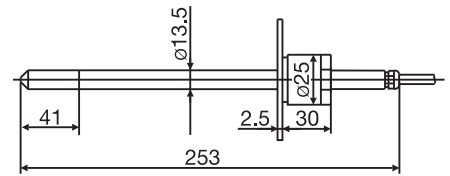
**Installation kit and mounting flange**



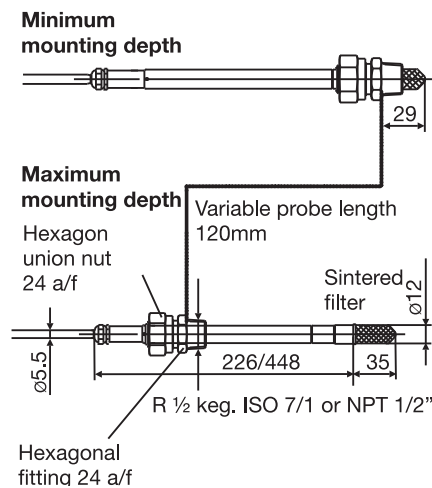
**Probe**  
 907025/S63



**Probe**  
 907025/S64



**Probe**  
 907025/S65  
 inc. mounting flange (optional)



**Probe**  
 907025/S68 and .../S68L

All measurements in mm.

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

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

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



**Order details: Intrinsically safe industrial measuring probes for humidity, temperature, and derived variables with Ex-approval according to ATEX 100a 94/9/EG (PTB)**

**(1) Basic type**

907025/61 Intrinsically safe humidity and temperature measuring probe for wall mounting, operating temperature -40 to +60 °C

**(2) Output variables**

x 11 rF + T  
 x 15 rF + T + Td + a + Tw + x

**(3) Analog output variables channel 1 (and channel 2 optionally)**

x .0 For standard use of only one channel please select 0 for channel 2!  
 x 1 1 rF 0 to 100 %rF  
 x 2 2 T (see temperature measuring ranges)  
 x 3 3 Td<sup>2</sup> -40 to +60 °C  
 x 4 4 a<sup>2</sup> 0 to 160 g/m<sup>3</sup>  
 x 5 5 Tw<sup>2</sup> 0 to 60 °C  
 x 6 6 x<sup>2</sup> 0 to 160 g/kg dry air  
 x 9 9 Special scaling (specify in plain text)

**(4) Temperature measuring ranges**

x 472 -40 to +60 °C  
 x 632 -20 to +60 °C  
 x 807 0 to 60 °C  
 x 999 Special measuring range (specify in plain text)

**(5) Probe shaft/filter**

x 2 120 mm probe shaft length (60 °C), PPS plastic grid filter with stainless steel mesh

**(6) Extra codes**

x 000 Without extra code  
 x 427 Pipe sleeve NPT 1/2" (for installation pipe)  
 x 777 Unit not metric (°F)  
 x 789 Integrated LCD display/control panel  
 x 801 PPS plastic grid filter with PTFE membrane  
 x 803 Stainless steel sinter filter  
 x 805 PPS plastic grid filter without stainless steel net  
 x 823 Special sensor for high concentrations of chemicals  
 x 826 2 analog output variables (channel 1 and 2), 4 to 20 mA  
 x 828 Operating instructions in English

**Order code**                    (1)                    (2)                    (3)                    (4)                    (5)                    (6)  
**Order example**            907025/61            -            11            -            12            -            472            -            2            /            000 , ...<sup>1</sup>

<sup>1</sup> List extra codes in sequence, separated by commas.

<sup>2</sup> The calculated variables Td, a, Tw, and x are only available if option 15 is selected at the output variables.

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

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

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



**Order details: Intrinsically safe industrial measuring probes for humidity, temperature, and derived variables with Ex-approval according to ATEX 100a 94/9/EG (PTB)**

**(1) Basic type**

907025/63 Intrinsically safe humidity and temperature measuring probe with small sensor head on a 2 m sensor line, operating temperature 40 to +120 °C

**(2) Output variables**

x 11 rF + T  
 x 15 rF + T + Td + a + Tw + x

**(3) Analog output variables channel 1 (and channel 2 optionally)**

.0 For standard use of only one channel please select 0 for channel 2!

x 1 1 rF 0 to 100 %rF  
 x 2 2 T (see temperature measuring ranges)  
 x 3 3 Td<sup>2</sup> -40 to +100 °C  
 x 4 4 a<sup>2</sup> 0 to 500 g/m<sup>3</sup>  
 x 5 5 Tw<sup>2</sup> 0 to 100 °C  
 x 6 6 x<sup>2</sup> 0 to 500 g/kg dry air  
 x 9 9 Special scaling (specify in plain text)

**(4) Temperature measuring ranges**

x 474 -40 to +80 °C  
 x 478 -40 to +120 °C  
 x 635 -20 to +80 °C  
 x 643 -20 to +120 °C  
 x 814 0 to 100 °C  
 x 999 Special measuring range (specify in plain text)

**(5) Sensor cable lengths (probe shaft / filter)**

x 2 2 m shaft length 60 mm (120 °C), PPS plastic grid filter with stainless steel mesh  
 x 5 5 m shaft length 60 mm (120 °C), PPS plastic grid filter with stainless steel mesh  
 x 10 10 m shaft length 60 mm (120 °C), PPS plastic grid filter with stainless steel mesh

**(6) Extra codes**

x 000 Without extra code  
 x 427 Pipe sleeve NPT 1/2" (for installation pipe)  
 x 777 Unit not metric (°F)  
 x 783 Channel installation kit  
 x 789 Integrated LCD display/control panel  
 x 823 Special sensor for high concentrations of chemicals  
 x 826 2 analog output variables (channel 1 and 2), 4 to 20 mA  
 x 828 Operating instructions in English

	(1)	(2)	(3)	(4)	(5)	(6)	
<b>Order code</b>							, ... <sup>1</sup>
<b>Order example</b>	907025/63	- 11	- 12	- 474	- 2	/ 000	

<sup>1</sup> List extra codes in sequence, separated by commas.

<sup>2</sup> The calculated variables Td, a, Tw, and x are only available if option 15 is selected at the output variables.

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

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

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



**Order details: Intrinsically safe industrial measuring probes for humidity, temperature, and derived variables with Ex-approval according to ATEX 100a 94/9/EG (PTB)**

**(1) Basic type**

907025/64 Intrinsically safe humidity and temperature measuring probe with a pressure-resistant stainless-steel sensor head on a 2 m sensor line for process pressures between 0 to 10 MPa (0 to 100 bar) operating temperature -40 to +180 °C

**(2) Output variables**

x 11 rF + T  
 x 15 rF + T + Td + a + Tw + x

**(3) Analog output variables channel 1 (and channel 2 optionally)**

x .0 For standard use of only one channel please select 0 for channel 2!  
 x 1 1 rF 0 to 100 %rF  
 x 2 2 T (see temperature measuring ranges)  
 x 3 3 Td<sup>2</sup> -40 to +100 °C  
 x 4 4 a<sup>2</sup> 0 to 500 g/m<sup>3</sup>  
 x 5 5 Tw<sup>2</sup> 0 to 100 °C  
 x 6 6 x<sup>2</sup> 0 to 500 g/kg dry air  
 x 9 9 Special scaling (specify in plain text)

**(4) Temperature measuring ranges**

x 474 -40 to +80 °C  
 x 478 -40 to +120 °C  
 x 485 -40 to +180 °C  
 x 635 -20 to +80 °C  
 x 643 -20 to +120 °C  
 x 648 -20 to +180 °C  
 x 814 0 to 100 °C  
 x 830 0 to 180 °C  
 x 999 Special measuring range (specify in plain text)

**(5) Sensor cable lengths (probe shaft / filter)**

x 2 2 m shaft length 150 mm (180 °C), stainless steel sinter filter  
 x 5 5 m shaft length 150 mm (180 °C), stainless steel sinter filter  
 x 10 10 m shaft length 150 mm (180 °C), stainless steel sinter filter

**(6) Extra codes**

x 000 Without extra code  
 x 427 Pipe sleeve NPT 1/2" (for installation pipe)  
 x 777 Unit not metric (°F)  
 x 789 Integrated LCD display/control panel  
 x 804 PPS plastic grid filter with stainless steel net  
 x 823 Special sensor for high concentrations of chemicals  
 x 826 2 analog output variables (channel 1 and 2), 4 to 20 mA  
 x 828 Operating instructions in English

	(1)	(2)	(3)	(4)	(5)	(6)	
<b>Order code</b>							, ... <sup>1</sup>
<b>Order example</b>	907025/64	-	11	-	12	-	474
					-	2	/
						000	

<sup>1</sup> List extra codes in sequence, separated by commas.

<sup>2</sup> The calculated variables Td, a, Tw, and x are only available if option 15 is selected at the output variables.



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

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

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



**Order details: Intrinsically safe industrial measuring probes for humidity, temperature, and derived variables with Ex-approval according to ATEX 100a 94/9/EG (PTB)**

<b>(1) Basic type</b>	
907025/65	Intrinsically safe humidity and temperature measuring probe with stainless-steel sensor head on a 2 m sensor line, operating temperature -40 to +180 °C
<b>(2) Output variables</b>	
x 11	rF + T
x 15	rF + T + Td + a + Tw + x
<b>(3) Analog output variables channel 1 (and channel 2 optionally)</b>	
For standard use of only one channel please select 0 for channel 2!	
x .0	
x 1 1	rF 0 to 100 %rF
x 2 2	T (see temperature measuring ranges)
x 3 3	Td <sup>2</sup> -40 to +100 °C
x 4 4	a <sup>2</sup> 0 to 500 g/m <sup>3</sup>
x 5 5	Tw <sup>2</sup> 0 to 100 °C
x 6 6	x <sup>2</sup> 0 to 500 g/kg dry air
x 9 9	Special scaling (specify in plain text)
<b>(4) Temperature measuring ranges</b>	
x 474	-40 to +80 °C
x 478	-40 to +120 °C
x 485	-40 to +180 °C
x 635	-20 to +80 °C
x 643	-20 to +120 °C
x 648	-20 to +180 °C
x 814	0 to 100 °C
x 830	0 to 180 °C
x 999	Special measuring range (specify in plain text)
<b>(5) Sensor cable lengths (probe shaft / filter)</b>	
x 2	2 m shaft length 150 mm (180 °C), stainless steel sinter filter
x 5	5 m shaft length 150 mm (180 °C), stainless steel sinter filter
x 10	10 m shaft length 150 mm (180 °C), stainless steel sinter filter
<b>(6) Extra codes</b>	
x 000	Without extra code
x 427	Pipe sleeve NPT 1/2" (for installation pipe)
x 777	Unit not metric (°F)
x 785	Mounting flange, aluminum
x 786	Mounting flange, stainless steel
x 789	Integrated LCD display/control panel
x 804	PPS plastic grid filter with stainless steel net
x 823	Special sensor for high concentrations of chemicals
x 826	2 analog output variables (channel 1 and 2), 4 to 20 mA
x 828	Operating instructions in English

<b>Order code</b>	(1)	(2)	(3)	(4)	(5)	(6)	, ... <sup>1</sup>
<b>Order example</b>	907025/65	- 11	- 12	- 474	- 2	/ 000	

<sup>1</sup> List extra codes in sequence, separated by commas.

<sup>2</sup> The calculated variables Td, a, Tw, and x are only available if option 15 is selected at the output variables.

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

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

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



**Order details: Intrinsically safe industrial measuring probes for humidity, temperature, and derived variables with Ex-approval according to ATEX 100a 94/9/EG (PTB)**

**(1) Basic type**

907025/68 Intrinsically safe humidity and temperature measuring probe with a pressure-resistant stainless-steel sensor head on a 2 m sensor line for process pressures between 0 to 4 MPa (0 to 40 bar), sensor head with adjustable clamping screw connection; operating temperature -40 to +180 °C

**(2) Output variables**

x 11 rF + T  
 x 15 rF + T + Td + a + Tw + x

**(3) Analog output variables channel 1 (and channel 2 optionally)**

x .0 For standard use of only one channel please select 0 for channel 2!  
 x 1 1 rF 0 to 100 %rF  
 x 2 2 T (see temperature measuring ranges)  
 x 3 3 Td<sup>2</sup> -40 to +100 °C  
 x 4 4 a<sup>2</sup> 0 to 500 g/m<sup>3</sup>  
 x 5 5 Tw<sup>2</sup> 0 to 100 °C  
 x 6 6 x<sup>2</sup> 0 to 500 g/kg dry air  
 x 9 9 Special scaling (specify in plain text)

**(4) Temperature measuring ranges**

x 474 -40 to +80 °C  
 x 478 -40 to +120 °C  
 x 485 -40 to +180 °C  
 x 635 -20 to +80 °C  
 x 643 -20 to +120 °C  
 x 648 -20 to +180 °C  
 x 814 0 to 100 °C  
 x 830 0 to 180 °C  
 x 999 Special measuring range (specify in plain text)

**(5) Sensor cable lengths (probe shaft / filter)**

x 2 2 m shaft length 178 mm (180 °C), stainless steel sinter filter  
 x 5 5 m shaft length 178 mm (180 °C), stainless steel sinter filter  
 x 10 10 m shaft length 178 mm (180 °C), stainless steel sinter filter

**(6) Extra codes**

x 000 Without extra code  
 x 427 Pipe sleeve NPT 1/2" (for installation pipe)  
 x 777 Unit not metric (°F)  
 x 787 Ball valve installation kit  
 x 789 Integrated LCD display/control panel  
 x 823 Special sensor for high concentrations of chemicals  
 x 826 2 analog output variables (channel 1 and 2), 4 to 20 mA  
 x 828 Operating instructions in English

	(1)	(2)	(3)	(4)	(5)	(6)	
<b>Order code</b>							, ... <sup>1</sup>
<b>Order example</b>	907025/68	-	11	-	12	-	474
					-	2	/
						000	

<sup>1</sup> List extra codes in sequence, separated by commas.

<sup>2</sup> The calculated variables Td, a, Tw, and x are only available if option 15 is selected at the output variables.



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

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

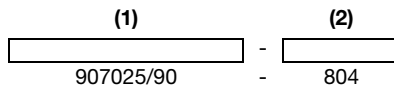
**JUMO Process Control, Inc.**  
 8 Technology Boulevard  
 Canastota, NY 13032, USA  
 Phone: 315-697-5866  
 1-800-554-JUMO  
 Fax: 315-697-5867  
 E-mail: info@jumo.us  
 Internet: www.jumo.us



**Order details: Accessories for intrinsically safe industrial measuring probes for humidity, temperature, and derived variables**

<b>(1) Basic type</b>	
907025/90	Filter (Ø 12 mm)
907025/91	Replaceable humidity sensor
907025/92	Replaceable temperature sensor
907025/93	Humidity sensor checks
907025/94	Channel installation kit
907025/95	Mounting flange
907025/96	Ball valve installation kit
907025/88	Interface cable (service interface) <sup>1</sup>
	<b>(2) Filter</b>
x 803	Stainless steel sinter filter
x 804	PPS plastic grid filter with stainless steel net
x 805	PPS plastic grid filter without stainless steel net
	<b>(2) Replaceable humidity sensor</b>
x 814	HUMICAP® 180
	<b>(2) Replaceable temperature sensor</b>
x 816	Pt1000 class AA (1/3 DIN B) according to DIN EN 60751
	<b>(2) Humidity sensor checks</b>
x 820	33 %rF magnesium chloride
x 821	55 %rF magnesium nitrate
x 822	76 %rF sodium chloride
	<b>(2) Channel installation kit</b>
x 784	Channel installation kit (for basic type 907025/63 (Ø 12 mm))
	<b>(2) Mounting flange</b>
x 786	Stainless steel (for basic type 907025/65 (Ø 12 mm))
	<b>(2) Ball valve installation kit</b>
x 787	Ball valve installation kit (for basic type 907025/68 and .../68L)
	<b>(2) Interface cable</b>
x 817	Interface cable for service interface

Order code  
 Order example



**Stock versions: Accessories for intrinsically safe industrial measuring probes for humidity, temperature, and derived variables**

<b>(1)</b>		<b>(2)</b>	<b>Part no.</b>
[ ]	-	[ ]	
907025/90	-	803	00465143
907025/90	-	804	00465144
907025/90	-	805	00465145
907025/92	-	816	00387458
907025/93	-	820	00332758
907025/93	-	821	00332759
907025/93	-	822	00332760
907025/94	-	784	00476927
907025/95	-	786	00511237

<sup>1</sup> Use of the interface cable is only admissible outside of the potentially explosive area and only when the device is used temporarily! Data transfer from a potentially explosive area is not admissible due to the increased safety requirements of DIN EN 60079-26 for category 1 devices!