

**JUMO GmbH & Co. KG**

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**JUMO Instrument Co. Ltd.**

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**JUMO Process Control, Inc.**

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

- For measuring relative air humidity and temperature
- The calculations of dew point temperature, absolute humidity, mixing ratio, and wet-bulb temperature are possible as options
- User-friendly, modular measuring probe concept
- Intelligent exchange probes that save all calibration coefficients
- Temperature resistant from -70 to +180 °C (depending on the type of probe)
- Pressure resistant up to 100 bar (depending on the probe type)
- Safe operation of the complete device in potentially explosive areas of category 1G / zone 0 and 1D / zone 20 with protection cover (EU)
- Traceable to NIST (including certificate)



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

The 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 mounting and user-friendliness.

The modular add-on concept consists of four parts that can be separated from each other (holder for wall mounting, housing bottom, electronic unit, and probe), thereby substantially simplifying mounting, operation, and maintenance.

Versatile uses for almost all applications are possible in connection with five exchangeable probes.

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

Otherwise, the probe design types do not differ from the proven 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 from 0 to 100 bar and at high process temperatures of up to 180 °C are also available.

The industrial measuring probes are

extremely robust and based on the latest sensor technology.

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

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

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

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

The intrinsically safe measuring probes are equipped with an analog output (4 to 20 mA) as standard. 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 industrial 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.

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## Technical data

<p>Design types</p> <p>Basic type 907025/61</p> <p>Basic type 907025/63</p> <p>Basic type 907025/64</p> <p>Basic type 907025/65</p> <p>Basic type 907025/68 and 907025/68L (long version, shaft length 400 mm)</p>	<p>Intrinsically safe humidity and temperature measuring probe for wall mounting, operating temperature -40 to +60 °C</p> <p>Intrinsically safe humidity and temperature measuring probe with small sensor head on a sensor line, operating temperature -40 to +120 °C</p> <p>Intrinsically safe humidity and temperature measuring probe with a pressure-resistant stainless steel sensor head on a sensor line for process pressures from 0 to 10 MPa (0 to 100 bar) pressure connection M22 x 1.5, operating temperature -70 to +180 °C</p> <p>Intrinsically safe humidity and temperature measuring probe with stainless steel sensor head on a sensor line, operating temperature -70 to +180 °C</p> <p>Intrinsically safe humidity and temperature measuring probe with a pressure-resistant stainless steel sensor head on a sensor line for process pressures from 0 to 4 MPa (0 to 40 bar), pressure connection ISO 1/2", sensor head with adjustable threaded fitting; operating temperature -70 to +180 °C</p> <p><b>Important information:</b>        When used in potentially explosive areas, the connection to the voltage supply (DC 12 to 28 V) must be carried out via intrinsically safe power supply devices or protection barriers that are available externally. When used in category 1 (zone 0), an intrinsically safe power supply unit (e.g. type JUMO 707530/38) must be used per channel. When used in categories 2 and 3 (zone 1 and 2), safety barriers are sufficient, however these are not included in the JUMO scope of delivery. For further information please consult the current operating manual that comes with the measuring probe!</p>
<p>Variables</p> <p>Relative humidity</p> <p>Measuring range</p> <p>Accuracy (including non-linearity, hysteresis and repeatability)</p> <p>With Vaisala HUMICAP® 180R</p> <p>At 15 to 25 °C (59 to 77 °F)</p> <p>At -20 to +40 °C (-4 to +104 °F)</p> <p>At -40 to +180 °C (-40 to +356 °F)</p> <p>With Vaisala HUMICAP® 180_2</p> <p>At -10 to +40 °C (14 to 104 °F)</p> <p>At -40 to +180 °C (-40 to +356 °F)</p> <p>Uncertainty of factory calibration (20 °C)</p> <p>Response time (90 %) at 20 °C in still air</p> <p>With grid filter</p> <p>With grid and stainless steel mesh filter</p> <p>With sinter filter</p>	<p>0 to 100 % RH</p> <p>For general applications</p> <p>±1.0 % RH (0 to 90 % RH)</p> <p>±1.7 % RH (90 to 100 % RH)</p> <p>±(1.0 + 0.8 % from the measured value) % RH</p> <p>±(1.5 + 1.5 % from the measured value) % RH</p> <p>For applications with high chemical concentrations</p> <p>±(1.0 + 1 % from the measured value) % RH</p> <p>±(1.5 + 2 % from the measured value) % RH</p> <p>±0.6 % RH (0 to 40 % RH)</p> <p>±1.0 % RH (40 to 97 % RH)</p> <p>Defined as ±2 standard limits of deviation</p> <p>Subject to changes, see calibration certificate for exact specifications</p> <p>17 s</p> <p>50 s</p> <p>60 s</p>
<p>Temperature measuring range</p> <p>Accuracy of the electronics system at 20 °C, typical</p> <p>Temperature dependency of electronics system</p> <p>Temperature sensors</p>	<p>-70 to +180 °C (depending on the probe selected)</p> <p>±0.1 °C</p> <p>0.005 °C/°C</p> <p>Pt1000 class AA according to DIN EN 60751</p>

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Derived variables (option) Typical measuring ranges Dew point $T_d$ Mixing ratio $x$ Absolute humidity $a$ Wet-bulb temperature $T_w$	With probe 907025/S61 -40 to +60 °C 0 to 160 g/kg dry air 0 to 160 g/m <sup>3</sup> 0 to 60 °C	With probes 907025/S63, 907025/S64, 907025/S65 and 907025/S68 -40 to +100 °C 0 to 500 g/kg dry air 0 to 600 g/m <sup>3</sup> 0 to 100 °C The accuracy of the derived variables depends on the accuracy of the humidity and temperature measurement, and the respective working point.
Outputs 2 analog outputs (one standard, one optional) Accuracy of analog outputs at 20 °C Temperature dependency	4 to 20 mA (two-wire technology)  0.05 % of end value  0.005 %/°C of end value	

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## Ex-classifications (analog outputs)

### Europe/VTT

EU (94/9/EC)	II 1 G Ex ia IIC T4 Ga VTT 09 ATEX 028X edition no.: 3
Safety factors	$U_i = DC\ 28\ V$ , $I_i = 100\ mA$ , $P_i = 700\ mW$ , $C_i = 1\ nF$ , $L_i =$ negligibly small
Environmental conditions $T_{amb}$ $P_{amb}$	-40 to +60 °C (-40 to +140 °F) 0.8 to 1.1 bar
Dust Ex-protection (with protection cover)	II 1 D (IP65 T = 70 °C) VTT 04 ATEX 023X

### USA (FM)

	Classes I, II, III, Section 1, groups A, B, C, D, E, F and G and Section 2, groups A, B, C, D, F and G FM project ID: 3010615
Safety factors	$V_{max} = DC\ 28\ V$ , $I_{max} = 100\ mA$ , $C_i = 1\ nF$ , $L_i = 0$ , $P_i = 700\ mW$ , $T_{amb} = 60\ °C$ (140 °F), T5

### Japan (TIS)

	Ex ia IIC T4 Code no.: TC20238
Safety factors	$U_i = DC\ 28\ V$ , $I_i = 100\ mA$ , $C_i = 1\ nF$ , $P_i = 700\ mW$ , $L_i = 0$ , $T_{amb} = 60\ °C$ (140 °F)

### Canada (CSA)

Class I Class II Class III	Sections 1 and 2, groups A, B, C and D Sections 1 and 2, groups G and coal dust CSA document no.: 213862 CSA certificate no.: 1300863
Safety factors	$T_{amb} = 60\ °C$ (140 °F), T4 Intrinsically safe when installing according to installation diagram DRW213478

### China (PCEC)

	Ex ia IIC T4 Ga Certificate no.: CE14.2164 Standards: GB3836.1-2010 and GB3836.4-2010
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### IECEx (VTT)

	Ex ia IIC T4 Ga VTT 09.0002X edition no.: 3
Safety factors	$U_i = DC\ 28\ V$ , $I_i = 100\ mA$ , $P_i = 700\ mW$ , $C_i = 1\ nF$ , $L_i =$ negligibly small
Environmental conditions $T_{amb}$ $P_{amb}$	-40 to +60 °C (-40 to +140 °F) 0.8 to 1.1 bar

### EAC (Russia, Kazakhstan, Belarus) (T RCU)

	Ex ia IIC T4 Ga X Certificate no.: RU C-FI.MIII06.B.00068
Environmental conditions $T_{amb}$ $P_{amb}$	-40 to +60 °C (-40 to +140 °F) 0.8 to 1.1 bar

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**General data**

Voltage supply When using the service interface Requirement	DC 12 to 28 V DC 15 to 28 V The device must be equipped with an electrical circuit that meets the requirements of EN 61010-1 with regard to "Limited-energy circuits".
Operating temperature range Electronics system (with LCD display)	-40 to +60 °C (-20 to +60 °C)
Storage temperature range	-40 to +70 °C
Connections	Screw terminals 0.33 to 2.0 mm <sup>2</sup>
Cable gland	Pg11 for sensor line with Ø 5 to 12 mm
Line bushing	Pg11/NPT 1/2"-14
Case material	G-AlSi10 Mg (DIN 1725)
Housing dimensions	164 × 115 × 62 mm (Length × Width × Height)
Case protection type	IP66 (NEMA 4x)
Weight of case	950 g
Display	Two-line LCD display
EMC	According to EN 61326-1:1997 and annex 1:1998 (EN 61000-4-5 only when using an external overvoltage arrester)

**Probes**

907025/S61 Temperature range	Probe for wall mounting -40 to +60 °C
907025/S63 Temperature range	Probe in small design type -40 to +120 °C
907025/S64 Temperature range Pressure range	Probe for high pressures -70 to +180 °C 0 to 10 MPa (0 to 100 bar)
907025/S65 Temperature range	Probe for high temperatures -70 to +180 °C
907025/S68 and 907025/S68L Temperature range Pressure range	Probe for pressure lines -70 to +180 °C 0 to 4 MPa (0 to 40 bar)
Probe line diameter (all basic types) Probe line length	5.5 mm 2 m (standard) 5 m or 10 m (optional)

**Options**

Second analog output	4 to 20 mA (two-wire technology)
Housing with display/control field	Two-line LCD display
Character size (1st line/2nd line)	12 mm/10 mm
Expansion 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 made from acid-proof, rust-free stainless steel AISi 316L (material no. 1.4404), Stainless steel grid AISi 316L (material no. 1.4404), PPS grid with rust-free stainless steel mesh AISi 316 (material no. 1.4436), PPS grid

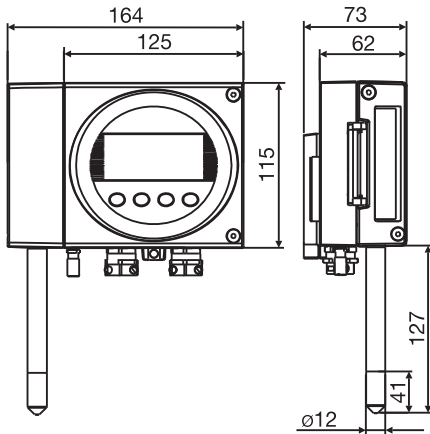
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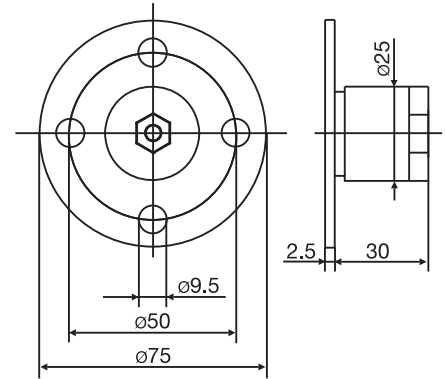
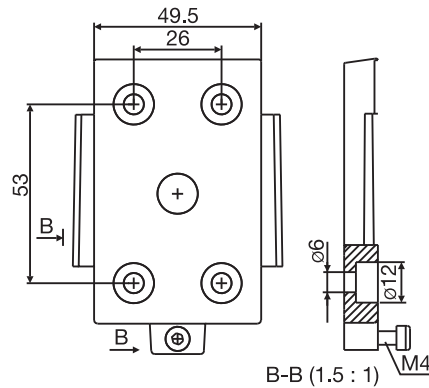
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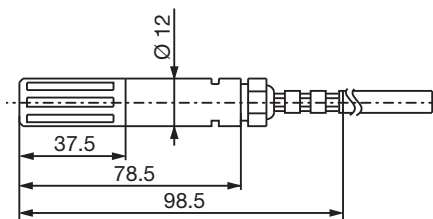
## Dimensions



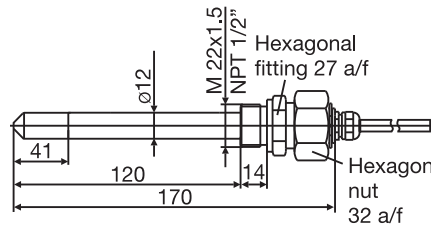
**Central processing unit with probe 907025/Holder for wall mounting S61**  
**Basic type 907025/61**



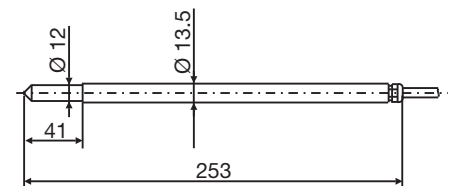
**Installation kit and mounting flange**



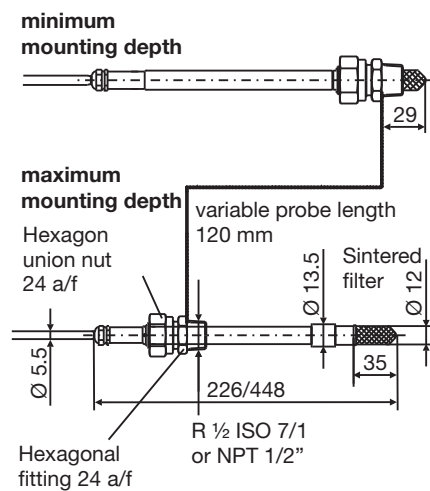
**Probe 907025/S63**



**Probe 907025/S64**



**Probe 907025/S65**



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

All measurements in mm.

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## Order details

<b>(1) Basic type</b>	
907025/61	Intrinsically safe humidity and temperature measuring probe for wall mounting, operating temperature -40 to +60 °C
<b>(2) Output variables</b>	
x	11 RH + T
x	15 RH + T + T <sub>d</sub> + a + T <sub>w</sub> + x
<b>(3) Analog output variables channel 1 (and channel 2 optionally)</b>	
x	.0 For standard use of only one channel please select 0 for channel 2!
x	1 1 RH 0 to 100 % RH
x	2 2 T (see temperature measuring ranges)
x	3 3 T <sub>d</sub> <sup>a</sup> -40 to +60 °C
x	4 4 a <sup>a</sup> 0 to 160 g/m <sup>3</sup>
x	5 5 T <sub>w</sub> <sup>a</sup> 0 to 60 °C
x	6 6 x <sup>a</sup> 0 to 160 g/kg dry air
x	9 9 Special scaling (specify in plain text)
<b>(4) Temperature measuring ranges</b>	
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)
<b>(5) Probe shaft/filter</b>	
x	2 127 mm probe shaft length (60 °C), PPS plastic grid filter with stainless steel mesh
<b>(6) Extra code</b>	
x	000 none
x	427 Device line connection NPT 1/2" (for wire lines)
x	777 Unit not metric (°F)
x	789 Integrated LCD display/built-in 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 mesh
x	826 2 analog output channels (channel 1 and channel 2), 4 to 20 mA
x	828 Operating instructions in English

<sup>a</sup> The calculated variables T<sub>d</sub>, a, T<sub>w</sub> and x are only available if option 15 is selected at the output variables.

Order code  -  -  -  -  /  , ...<sup>a</sup>  
 Order example 907025/61 - 11 - 12 - 472 - 2 / 000

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

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**(1) Basic type**

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

**(2) Output variables**

- x 11 RH + T
- x 15 RH + T + T<sub>d</sub> + a + T<sub>w</sub> + 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 RH 0 to 100 % RH
- x 2 2 T (see temperature measuring ranges)
- x 3 3 T<sub>d</sub><sup>a</sup> -40 to +100 °C
- x 4 4 a<sup>a</sup> 0 to 500 g/m<sup>3</sup>
- x 5 5 T<sub>w</sub><sup>a</sup> 0 to 100 °C
- x 6 6 x<sup>a</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 line lengths (probe shaft / filter)**

- x 2 2 m shaft length 78.5 mm (98.5 mm with roll) (120 °C), PPS plastic grid filter with stainless steel mesh
- x 5 5 m shaft length 78.5 mm (98.5 mm with roll) (120 °C), PPS plastic grid filter with stainless steel mesh
- x 10 10 m shaft length 78.5 mm (98.5 mm with roll) (120 °C), PPS plastic grid filter with stainless steel mesh

**(6) Extra code**

- x 000 none
- x 427 Device line connection NPT 1/2" (for wire lines)
- x 777 Unit not metric (°F)
- x 783 Channel installation kit
- x 789 Integrated LCD display/built-in control panel
- x 826 2 analog output channels (channel 1 and channel 2), 4 to 20 mA
- x 828 Operating instructions in English

<sup>a</sup> The calculated variables T<sub>d</sub>, a, T<sub>w</sub> and x are only available if option 15 is selected at the output variables.

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

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



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**(1) Basic type**

907025/64 Intrinsically safe humidity and temperature measuring probe with a pressure-resistant stainless steel sensor head on a sensor line for process pressures from 0 to 10 MPa (0 to 100 bar) pressure connection M22 x 1.5, operating temperature -70 to +180 °C

**(2) Output variables**

- x 11 RH + T
- x 15 RH + T + T<sub>d</sub> + a + T<sub>w</sub> + 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 RH 0 to 100 % RH
- x 2 2 T (see temperature measuring ranges)
- x 3 3 T<sub>d</sub><sup>a</sup> -40 to +100 °C
- x 4 4 a<sup>a</sup> 0 to 500 g/m<sup>3</sup>
- x 5 5 T<sub>w</sub><sup>a</sup> 0 to 100 °C
- x 6 6 x<sup>a</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 line lengths (probe shaft / filter)**

- x 2 2 m shaft length 170 mm (180 °C), stainless steel sinter filter
- x 5 5 m shaft length 170 mm (180 °C), stainless steel sinter filter
- x 10 10 m shaft length 170 mm (180 °C), stainless steel sinter filter

**(6) Extra code**

- x 000 none
- x 427 Device line connection NPT 1/2" (for wire lines)
- x 777 Unit not metric (°F)
- x 789 Integrated LCD display/built-in control panel
- x 804 PPS plastic grid filter with stainless steel mesh
- x 826 2 analog output channels (channel 1 and channel 2), 4 to 20 mA
- x 828 Operating instructions in English
- x 916 Pressure connection NPT 1/2"

<sup>a</sup> The calculated variables T<sub>d</sub>, a, T<sub>w</sub> and x are only available if option 15 is selected at the output variables.

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

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

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**(1) Basic type**

907025/65 Intrinsically safe humidity and temperature measuring probe with stainless steel sensor head on a sensor line, operating temperature -70 to +180 °C

**(2) Output variables**

- x 11 RH + T
- x 15 RH + T + T<sub>d</sub><sup>a</sup> + a + T<sub>w</sub> + 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 RH 0 to 100 % RH
- x 2 2 T (see temperature measuring ranges)
- x 3 3 T<sub>d</sub><sup>a</sup> -40 to +100 °C
- x 4 4 a<sup>a</sup> 0 to 500 g/m<sup>3</sup>
- x 5 5 T<sub>w</sub><sup>a</sup> 0 to 100 °C
- x 6 6 x<sup>a</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 line lengths (probe shaft / filter)**

- x 2 2 m shaft length 253 mm (180 °C), stainless steel sinter filter
- x 5 5 m shaft length 253 mm (180 °C), stainless steel sinter filter
- x 10 10 m shaft length 253 mm (180 °C), stainless steel sinter filter

**(6) Extra code**

- x 000 none
- x 427 Device line connection NPT 1/2" (for wire lines)
- x 777 Unit not metric (°F)
- x 785 Mounting flange, aluminum
- x 786 Mounting flange, stainless steel
- x 789 Integrated LCD display/built-in control panel
- x 804 PPS plastic grid filter with stainless steel mesh
- x 826 2 analog output channels (channel 1 and channel 2), 4 to 20 mA
- x 828 Operating instructions in English

<sup>a</sup> The calculated variables T<sub>d</sub>, a, T<sub>w</sub>, and x are only available if option 15 is selected at the output variables.

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

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

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**(1) Basic type**

907025/68 Intrinsically safe humidity and temperature measuring probe with a pressure-resistant stainless steel sensor head on a sensor line for process pressures from 0 to 4 MPa (0 to 40 bar), pressure connection ISO 1/2", sensor head with adjustable threaded fitting; operating temperature -70 to +180 °C

**(2) Output variables**

- x 11 RH + T
- x 15 RH + T + T<sub>d</sub> + a + T<sub>w</sub> + 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 RH 0 to 100 % RH
- x 2 2 T (see temperature measuring ranges)
- x 3 3 T<sub>d</sub><sup>a</sup> -40 to +100 °C
- x 4 4 a<sup>a</sup> 0 to 500 g/m<sup>3</sup>
- x 5 5 T<sub>w</sub><sup>a</sup> 0 to 100 °C
- x 6 6 x<sup>a</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 line lengths (probe shaft / filter)**

- x 2 2 m shaft length 226 mm (180 °C), stainless steel sinter filter
- x 5 5 m shaft length 226 mm (180 °C), stainless steel sinter filter
- x 10 10 m shaft length 226 mm (180 °C), stainless steel sinter filter

**(6) Extra code**

- x 000 none
- x 427 Device line connection NPT 1/2" (for wire lines)
- x 777 Unit not metric (°F)
- x 787 Ball valve installation kit
- x 789 Integrated LCD display/built-in control panel
- x 826 2 analog output channels (channel 1 and channel 2), 4 to 20 mA
- x 828 Operating instructions in English
- x 916 Pressure connection NPT 1/2"

<sup>a</sup> The calculated variables T<sub>d</sub>, a, T<sub>w</sub> and x are only available if option 15 is selected at the output variables.

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

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

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(1) Basic type

907025/68L Intrinsically safe humidity and temperature measuring probe with a pressure-resistant stainless-steel sensor head (long version) on a sensor line for process pressures from 0 to 4 MPa (0 to 40 bar), pressure connection ISO 1/2", sensor head with adjustable threaded fitting; operating temperature -70 to +180 °C

(2) Output variables

- x 11 RH + T
- x 15 RH + T + T<sub>d</sub> + a + T<sub>w</sub> + 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 RH 0 to 100 % RH
- x 2 2 T (see temperature measuring ranges)
- x 3 3 T<sub>d</sub><sup>a</sup> -40 to +100 °C
- x 4 4 a<sup>a</sup> 0 to 500 g/m<sup>3</sup>
- x 5 5 T<sub>w</sub><sup>a</sup> 0 to 100 °C
- x 6 6 x<sup>a</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 line lengths (probe shaft / filter)

- x 2 2 m shaft length 448 mm (180 °C), stainless steel sinter filter
- x 5 5 m shaft length 448 mm (180 °C), stainless steel sinter filter
- x 10 10 m shaft length 448 mm (180 °C), stainless steel sinter filter

(6) Extra code

- x 000 none
- x 427 Device line connection NPT 1/2" (for wire lines)
- x 777 Unit not metric (°F)
- x 787 Ball valve installation kit
- x 789 Integrated LCD display/built-in control panel
- x 823 Special sensor for high concentrations of chemicals
- x 826 2 analog output channels (channel 1 and channel 2), 4 to 20 mA
- x 828 Operating instructions in English
- x 916 Pressure connection NPT 1/2"

<sup>a</sup> The calculated variables T<sub>d</sub>, a, T<sub>w</sub>, and x are only available if option 15 is selected at the output variables.

Order code             -  -  -  -  /  , ...<sup>a</sup>  
Order example        907025/68L    -    11    -    12    -    474    -    2    /    000

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

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## Accessories

Description	Part no.
Humidity sensor check: 33 % RH, magnesium chloride	00332758
Humidity sensor check: 53% RH, magnesium nitrate	00332759
Humidity sensor check: 76% RH, sodium chloride	00332760
Stainless steel sinter filter (Ø 12 mm)	00465143
PPS plastic grid filter with stainless steel mesh (Ø 12 mm)	00465144
PPS plastic grid filter without stainless steel mesh (Ø 12 mm)	00465145
Channel installation kit for basic type 907025/63 (Ø 12 mm)	00476927
Stainless steel mounting flange for basic type 907025/65 (Ø 12 mm)	00511237