**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
Email: mail@jumo.net
Internet: www.jumo.net

**JUMO UK LTD**
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

**JUMO Process Control, Inc.**
6724 Joy Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com



# Push-in RTD temperature probe

## With connection line

### Areas of application

- Apparatus engineering
- Heating, ventilation, and air-conditioning
- Climatic chambers
- Laboratory technology
- Solar units

### Special features

- Single and double RTD temperature probes
- Straight and angled variants
- Flexible connection lines
- Strain-relieved
- SIL and PL-qualified
- Optional bend protection

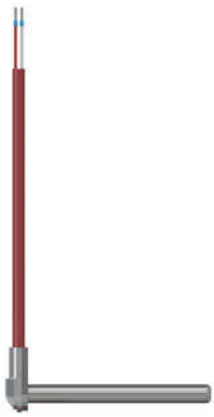
### Description

The push-in RTD temperature probe measures temperatures in liquids and gases.

The device is suitable for use in dry and humid rooms.



**Type 902150/10**



**Type 902150/40**



**Type 902150/41**

**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
Email: mail@jumo.net
Internet: www.jumo.net

**JUMO UK LTD**
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

**JUMO Process Control, Inc.**
6724 Joy Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com



# Approvals and qualifications

Certificates for approved device versions are available for download on the manufacturer's website.

# Technical data

## Electrical data

| | |
|---|---|
| Electrical connection | |
| Connection element | Connection line with a stripped line end |
| | Connection line with tin-plated connection wires |
| | Connection line with ferrules |
| | Connection line with M12 plug connector |
| | Connection line with multi-pole plug connection |

## Environmental influences

| | |
|---|---|
| Admissible ambient temperature of the connection line | |
| PVC | -5 to +80 °C |
| Silicone | -50 to +180 °C |
| PTFE | -50 to +260 °C |
| Metal braiding | -50 to +260 °C |
| Glass fiber | -50 to +400 °C |

## Mechanical features

| | |
|---|---|
| Materials | |
| Connection line insulation material | PVC |
| | Silicone |
| | PTFE |
| | Metal braiding |
| | Glass fiber |
| Protection tube | Stainless steel |
| Connection line | Strain-relieved |
| Protection tube | Ø 3 mm |
| | Ø 4 mm |
| | Ø 5 mm |
| | Ø 6 mm |
| Response times | |
| In water 0.4 m/s | $t_{0.5}$ ≈ 4 s, $t_{0.9}$ ≈ 10 s, Ø 6 mm |
| In air 3.0 m/s | $t_{0.5}$ ≈ 32 s, $t_{0.9}$ ≈ 98 s, Ø 6 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
Email: mail@jumo.net
Internet: www.jumo.net

**JUMO UK LTD**
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

**JUMO Process Control, Inc.**
6724 Joy Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com



| | |
|---|---|
| Measuring insert | DIN EN IEC 60751<br>1× Pt100 in 2-wire circuit<br>1× Pt100 in 3-wire circuit<br>1× Pt100 in 4-wire circuit<br>1× Pt1000 in 2-wire circuit<br>2× Pt100 in 2-wire circuit<br>2× Pt100 in 3-wire circuit<br>2× Pt1000 in 2-wire circuit |
| Tolerance class | Class B (standard)<br>Class A<br>Class AA |

**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
Email: mail@jumo.net
Internet: www.jumo.net

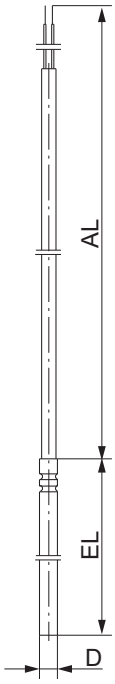
**JUMO UK LTD**
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

**JUMO Process Control, Inc.**
6724 Joy Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com

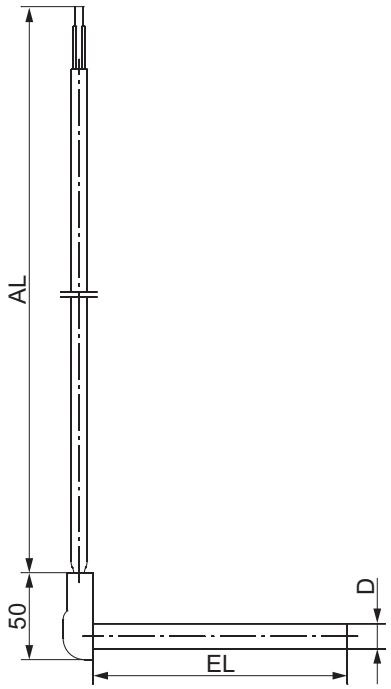


## Dimensions

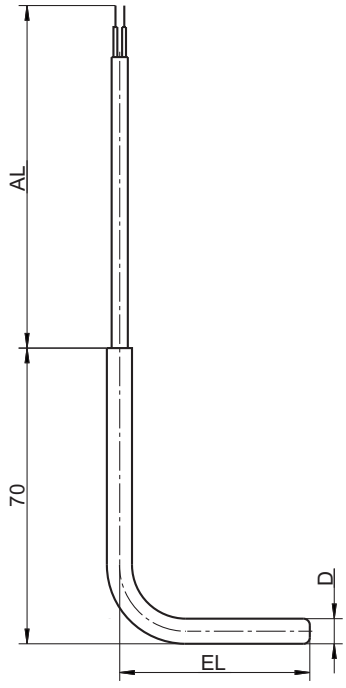
**Type 902150/10**
**with connection line and protection tube**




**Type 902150/40**
**with right-angled connection line and protection tube**




**Type 902150/41**
**with connection line and right-angled protection tube**



**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
Email: mail@jumo.net
Internet: www.jumo.net

**JUMO UK LTD**
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

**JUMO Process Control, Inc.**
6724 Joy Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com



# Order details

| | | |
|---|---|---|
| | **(1)** | **Basic type** |
| 902150/10 | | Push-in RTD temperature probe with connection line, stainless steel protection tube   |
| | **(2)** | **Operating temperature** |
| 724 | | -5 to +80 °C |
| 378 | | -50 to +180 °C |
| 386 | | -50 to +260 °C (PTFE) |
| 388 | | -50 to +260 °C (metal braiding) |
| 402 | | -50 to +400 °C |
| | **(3)** | **Measuring insert** |
| 1003 | | 1× Pt100 in 2-wire circuit |
| 1001 | | 1× Pt100 in 3-wire circuit |
| 1011 | | 1× Pt100 in 4-wire circuit |
| 1005 | | 1× Pt1000 in 2-wire circuit |
| 2003 | | 2× Pt100 in 2-wire circuit |
| 2001 | | 2× Pt100 in 3-wire circuit |
| 2005 | | 2× Pt1000 in 2-wire circuit |
| | **(4)** | **Tolerance class according to DIN EN IEC 60751** |
| 1 | | Class B (standard) |
| 2 | | Class A |
| 3 | | Class AA |
| | **(5)** | **Protection tube diameter D** |
| 3 | | Ø 3 mm |
| 4 | | Ø 4 mm |
| 5 | | Ø 5 mm |
| 6 | | Ø 6 mm |
| | **(6)** | **Insertion length EL** |
| 30 | | 30 mm |
| 40 | | 40 mm |
| 50 | | 50 mm |
| 60 | | 60 mm |
| 100 | | 100 mm |
| 150 | | 150 mm |
| 200 | | 200 mm |
| | **(7)** | **Connection line end** |
| 03 | | Bare connection wires |
| 04 | | Tin-plated connection wires |
| 11 | | Ferrules (standard) |
| 56 | | M12 plug connector |
| 80 | | Multi-pole plug connection (specify type in plain text) |
| | **(8)** | **Connection line length AL** |
| 2500 | | 2500 mm |
| .... | | Specification in plain text (500 mm increments) |
| | **(9)** | **Extra codes** |
| 000 | | None |
| 061 | | UL approval (not in connection with operating temperature 388 or 402) |
| 880 | | DNV approval (only in connection with protection tube diameter 6 to insertion length 150) |
| 310 | | Protection tube, reduced |
| 315 | | Bend protection spring |

**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
Email: mail@jumo.net
Internet: www.jumo.net

**JUMO UK LTD**
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

**JUMO Process Control, Inc.**
6724 Joy Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com



| | |
|---|---|
| 316 | Bend protection tubing |
| 317 | Shielded connection line |
| 093 | Shielding connected with protection tube (only in connection with extra code 317) |
| 094 | Shielding fed out on the connection side with grounding wire (only in connection with extra code 317) |
| 366 | Inspection certificate 3.1 DIN EN 10204 tolerance/calibration |
| 775 | DAkkS calibration according to ISO/IEC 17025 |
| 1150 | AMS 2750 (only in connection with tolerance class A or AA) |
| 1151 | CQI-9 (only in connection with tolerance class A or AA) |
| 1152 | ISO 20431 (only in connection with tolerance class A or AA) |
| 658 | SIL and PL-compatible (only in connection with safetyM safety temperature limiter/monitor according to data sheet 701150; not in connection with transmitters) |
| 659 | SIL and PL-compatible (only in connection with dTRANS T06 cable transmitter according to data sheet 707071; not in connection with other transmitters) |
| 665 | SIL and PL-compatible (only in connection with programmable dTRANS T07 T SIL two-channel transmitter with HART® communication and SIL according to data sheet 707080; not in connection with other transmitters) |

| | (1) | | (2) | | (3) | | (4) | | (5) | | (6) | | (7) | | (8) | | (9) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Order code** | | - | | - | | - | | - | | - | | - | | - | | / | | , ...[a] |
| **Order example** | 902150/10 | - | 378 | - | 1001 | - | 1 | - | 6 | - | 50 | - | 11 | - | 2500 | / | 000 | |

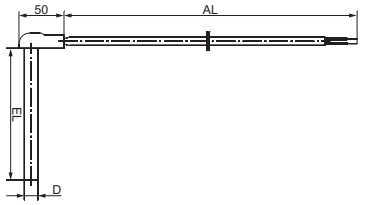
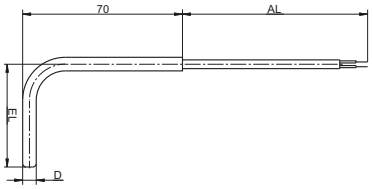
[a] List extra codes in sequence and separate using commas.

**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
Email: mail@jumo.net
Internet: www.jumo.net

**JUMO UK LTD**
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

**JUMO Process Control, Inc.**
6724 Joy Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com



| | | | | |
|---|---|---|---|---|
| | | | **(1)** | **Basic type** |
| | | 902150/40 | | Push-in RTD temperature probe with right-angled connection line, stainless steel protection tube   |
| | | 902150/41 | | Push-in RTD temperature probe with connection line, right-angled stainless steel protection tube   |
| | | | **(2)** | **Operating temperature** |
| x | x | 724 | | -5 to +80 °C |
| x | x | 378 | | -50 to +180 °C |
| x | x | 386 | | -50 to +260 °C (PTFE) |
| x | x | 388 | | -50 to +260 °C (metal braiding) |
| x | x | 402 | | -50 to +400 °C |
| | | | **(3)** | **Measuring insert** |
| x | x | 1003 | | 1× Pt100 in 2-wire circuit |
| x | x | 1001 | | 1× Pt100 in 3-wire circuit |
| x | x | 1011 | | 1× Pt100 in 4-wire circuit |
| x | x | 1005 | | 1× Pt1000 in 2-wire circuit |
| x | x | 2003 | | 2× Pt100 in 2-wire circuit |
| x | x | 2001 | | 2× Pt100 in 3-wire circuit |
| x | x | 2005 | | 2× Pt1000 in 2-wire circuit |
| | | | **(4)** | **Tolerance class according to DIN EN IEC 60751** |
| x | x | 1 | | Class B (standard) |
| x | x | 2 | | Class A |
| x | x | 3 | | Class AA |
| | | | **(5)** | **Protection tube diameter D** |
| | x | 4 | | Ø 4 mm |
| x | x | 5 | | Ø 5 mm |
| x | x | 6 | | Ø 6 mm |
| x | | 9 | | Ø 9 mm |
| | | | **(6)** | **Insertion length EL** |
| x | x | 50 | | 50 mm |
| x | x | 60 | | 60 mm |
| x | x | 100 | | 100 mm |
| x | x | 150 | | 150 mm |
| x | x | 200 | | 200 mm |
| | | | **(7)** | **Connection line end** |
| x | x | 03 | | Bare connection wires |
| x | x | 04 | | Tin-plated connection wires |
| x | x | 11 | | Ferrules (standard) |
| x | x | 56 | | M12 plug connector |
| x | x | 80 | | Multi-pole plug connection (specify type in plain text) |
| | | | **(8)** | **Connection line length AL** |
| x | x | 2500 | | 2500 mm |
| x | x | .... | | Specification in plain text (500 mm increments) |

**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
Email: mail@jumo.net
Internet: www.jumo.net

**JUMO UK LTD**
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

**JUMO Process Control, Inc.**
6724 Joy Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com



| | | (9) | Extra codes |
|---|---|---|---|
| x | x | 000 | None |
| x | x | 061 | UL approval (not in connection with operating temperature 388 or 402) |
| x | x | 880 | DNV approval (only in connection with protection tube diameter 6 to insertion length 150) |
| x | x | 310 | Protection tube, reduced |
| x | x | 315 | Bend protection spring |
| x | x | 316 | Bend protection tubing |
| x | x | 317 | Shielded connection line |
| x | x | 093 | Shielding connected with protection tube (only in connection with extra code 317) |
| x | x | 094 | Shielding fed out on the connection side with grounding wire (only in connection with extra code 317) |
| x | x | 366 | Inspection certificate 3.1 DIN EN 10204 tolerance/calibration |
| x | x | 775 | DAkkS calibration according to ISO/IEC 17025 |
| x | x | 1150 | AMS 2750 (only in connection with tolerance class A or AA) |
| x | x | 1151 | CQI-9 (only in connection with tolerance class A or AA) |
| x | x | 1152 | ISO 20431 (only in connection with tolerance class A or AA) |
| x | x | 658 | SIL and PL-compatible (only in connection with safetyM safety temperature limiter/monitor according to data sheet 701150; not in connection with transmitters) |
| x | x | 659 | SIL and PL-compatible (only in connection with dTRANS T06 cable transmitter according to data sheet 707071; not in connection with other transmitters) |
| x | x | 665 | SIL and PL-compatible (only in connection with programmable dTRANS T07 T SIL two-channel transmitter with HART® communication and SIL according to data sheet 707080; not in connection with other transmitters) |

| | (1) | | (2) | | (3) | | (4) | | (5) | | (6) | | (7) | | (8) | | (9) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Order code** | | - | | - | | - | | - | | - | | - | | - | | / | | , ...[a] |
| **Order example** | 902150/40 | - | 378 | - | 1001 | - | 1 | - | 6 | - | 50 | - | 11 | - | 2500 | / | 000 | |

[a] List extra codes in sequence and separate using commas.

**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
Email: mail@jumo.net
Internet: www.jumo.net

**JUMO UK LTD**
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

**JUMO Process Control, Inc.**
6724 Joy Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com



# Stock versions

| Order code | Part no. |
|---|---|
| 902150/10-724-1003-1-6-50-11-2500/000 | 30056168 |
| 902150/10-724-1005-1-6-50-11-2500/000 | 30056169 |
| 902150/10-378-1003-1-5-150-11-2500/000 | 30056170 |
| 902150/10-378-1003-1-6-50-11-2500/000 | 30056171 |
| 902150/10-378-1003-2-6-50-11-2500/000 | 30056172 |
| 902150/10-378-1003-1-6-100-11-2500/000 | 30056173 |
| 902150/10-378-1001-1-6-50-11-2500/000 | 30056174 |
| 902150/10-378-1001-1-6-50-11-5000/000 | 30056175 |
| 902150/10-378-1001-2-6-200-11-2500/000 | 30056176 |
| 902150/10-378-2003-1-6-50-11-2500/000 | 30056178 |
| 902150/10-386-1001-1-3-50-11-2500/000 | 30056179 |
| 902150/10-386-1001-1-6-50-11-2500/000 | 30056180 |
| 902150/10-388-1003-1-6-50-11-2500/317 | 30048624 |
| 902150/10-388-1001-1-6-50-11-2500/315,317 | 30056183 |
| 902150/10-402-1003-1-6-50-11-2500/317 | 30056184 |

# Accessories

| Designation | Part no. |
|---|---|
| Steel sheet flange for protection tube diameter 6 mm | 00065062 |
| **Designation** | **Data sheet** |
| Cable transmitter dTRANS T09 | 707090 |
| Compression fittings | 909750 |

# Trademark information

All trademarks and trade and company names used are the property of their rightful owners or authors.