

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 Instrument Co. Ltd.

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

JUMO Process Control, Inc.

6733 Myers Road
East Syracuse, NY 13057, USA
Phone: 315-437-5866
1-800-554-5866
Fax: 315-437-5860
Email: info.us@jumo.net
Internet: www.jumousa.com



JUMO Dtrans T100

Screw-in RTD Temperature Probe with/without Transmitter

- For temperatures between -50 and +260 °C
- EHEDG certification
- RoHS conformity for EU and China
- Configuration with setup program via USB interface
- M12 × 1 plug connector; protection type IP67 according to DIN EN 60529 with inserted machine connector

The screw-in RTD temperature probe in compact design type comprises a protection tube with integrated temperature sensor, a process connection, and an additional case for the transmitter electronics. The integrated programmable two-wire transmitter converts the resistance value into a current signal.

The screw-in RTD temperature probe with programmable two-wire transmitter is used to measure temperatures from -50 °C to +150 °C (-58 °F to +302 °F), with extension tube up to 260 °C (500 °F) (without transmitter: -50 °C to +200 °C or -58 °F to +392 °F).

The measuring range, fine adjustment, or the measuring circuit monitoring etc. can be configured with a setup program.

The output signal 4 to 20 mA or reversed 20 to 4 mA is available in a linearized way (temperature linear). The device is designed for industrial applications and complies with the respective European standards to guarantee electromagnetic compatibility (EMC).

The transmitter must be protected from temperatures above 85 °C!

Also available as an ATEX/IECEx RTD temperature probe upon request.



Approvals/approval marks (see "Technical data")



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 Instrument Co. Ltd.

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

JUMO Process Control, Inc.

6733 Myers Road
East Syracuse, NY 13057, USA
Phone: 315-437-5866
1-800-554-5866
Fax: 315-437-5860
Email: info.us@jumo.net
Internet: www.jumousa.com



Technical data

| | |
|-----------------------|---|
| Electrical connection | Machine connector M12 × 1, 4-pin according to IEC 60947-5-2 |
| Process connections | Screw connection G 3/8 Screw connection G 1/2 Screw connection G 1/2 with CIP-compliant conical seal with EHEDG certification Taper socket with union nut (dairy compression fitting) Clamping socket (clamp) DIN 32676 Ball welding socket with threaded fitting Welding socket with CIP-compliant conical seal VARIVENT ^{®a} connections Ball welding sleeve JUMO PEKA with EHEDG certification |
| Protection tubes | Stainless steel 316 L material-no. 1.4404/1.4435 Stainless steel 316 Ti material-no. 1.4571 (upon request) |
| Protection type | IP67 according to DIN EN 60529 with inserted machine connector |
| Response times | Standard protection tube $t_{0,5} = 5$ s; $t_{0,9} = 12$ s; in water 0.4 m/s Stepped down protection tube $t_{0,5} = 2$ s; $t_{0,9} = 5$ s; in water 0.4 m/s Standard protection tube $t_{0,5} = 40$ s; $t_{0,9} = 110$ s; in air 3.0 m/s Stepped down protection tube $t_{0,5} = 21$ s; $t_{0,9} = 70$ s; in air 3.0 m/s |

^a VARIVENT[®] is a registered trademark of GEA Tuchenhagen.

Technical data (general)

Input

| | |
|------------------------------------|--|
| Measuring input | |
| Without transmitter | Pt100 or Pt1000 temperature sensor, DIN EN 60751, class A, B, and/or AA, two or four-wire circuit |
| With programmable transmitter | Pt1000 temperature sensor, DIN EN 60751, class A, four-wire circuit |
| Measuring ranges | |
| Basic type 902815/10 and 902815/40 | -50 to +200 °C |
| Basic type 902815/20 | -50 to +150 °C |
| Basic type 902815/21 and 902815/41 | -50 to +260 °C with extension tube |
| Limit deviations in °C | Class A (standard): $\pm(0.15 + 0.002 \times t)$ °C ^a Class AA: $\pm(0.10 + 0.0017 \times t)$ °C ^a Class B: $\pm(0.30 + 0.005 \times t)$ °C ^a |

^a |t| = temperature in °C regardless of the prefix.

Environmental influences

| | |
|--|--|
| Ambient temperature range of the head | |
| Basic type 902815/10 and 902815/40 | -30 to +90 °C |
| Basic type 902815/20, 902815/21, and 902815/41 | -30 to +85 °C |
| Storage temperature range | -30 to +90 °C |
| Resistance to climatic conditions | According to IEC 60068-2-30 (relative humidity ≤ 95 % with condensation) |
| Vibration resistance | According to IEC 60068-2-6 (according to GL characteristic line) |

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

JUMO Process Control, Inc.
 6733 Myers Road
 East Syracuse, NY 13057, USA
 Phone: 315-437-5866
 1-800-554-5866
 Fax: 315-437-5860
 Email: info.us@jumo.net
 Internet: www.jumousa.com



Technical data (transmitter)

Input

| | |
|-------------------------|--|
| Smallest measuring span | 10 K |
| Sampling rate | 1 measurement per second |
| Input filter | Digital filter 1st order, filter constant can be set from 0 to 125 s |

Measuring circuit monitoring

| | |
|---|---|
| Underrange | Linear decrease to 3.8 mA (according to NAMUR recommendation 43) |
| Overrange | Linear increase to 20.5 mA (according to NAMUR recommendation 43) |
| Probe short circuit/ probe/cable break | ≤ 3.6 mA or ≥ 21.0 mA (configurable) |
| Current limiting in the event of probe short circuit or probe break | ≤ 25 mA |

Output

| | |
|---------------------------------------|--|
| Output signal | Load-independent direct current 4 to 20 mA, 20 to 4 mA |
| Transmission behavior | Temperature-linear |
| Maximal burden (R_B) | $R_B = (U_b - 8 \text{ V}) \div 23 \text{ mA}$, max. 600 Ω |
| Burden influence | $\leq \pm 0.02$ % per 100 Ω^a |
| Setting time for temperature changes | ≤ 5 s |
| Setting time after switch-on or reset | ≤ 5 s |
| Electronic measuring accuracy | 0.1 K or 0.08 % ^{b,c} |

^a %-specifications refer to the measuring range end value of 20 mA.

^b %-specifications refer to the set measuring span; the greater value is valid.

^c The deviation of the temperature sensor must be added to ensure the measuring accuracy of the transmitter.

Electrical data

| | |
|---------------------------------|---|
| Voltage supply (U_b) | DC 8 to 35 V (Pin 1 = +, Pin 3 = -), only use with SELV or PELV supply systems (according to DIN EN 61140) |
| Protection rating | III (according to DIN EN 61140) |
| Galvanic isolation | No galvanic isolation between sensor and output |
| Leakage resistance | > 100 M Ω at DC 100 V measured at room temperature between connection terminals and case |
| Reverse voltage protection | Yes |
| Influence of the voltage supply | $\leq \pm 0.01$ % per V deviation from 24 V ^a |

^a %-specifications refer to the measuring range end value of 20 mA.

Environmental influences

| | |
|-------------------------------------|---|
| Ambient temperature influence | $\leq \pm(15 \text{ ppm/K} \times (\text{measuring range end value} + 200) + 50 \text{ ppm/K} \times \text{set measuring range}) \times \Delta v$ Δv = deviation of the ambient temperature from the reference temperature |
| Calibration/reference conditions | DC 24 V at 25 °C ± 5 °C (77 °F ± 9 °F) |
| Electromagnetic compatibility (EMC) | DIN EN 61326 |
| Interference emission | Class B |
| Interference immunity | Industrial requirements |

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 Instrument Co. Ltd.

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

JUMO Process Control, Inc.

6733 Myers Road
East Syracuse, NY 13057, USA
Phone: 315-437-5866
1-800-554-5866
Fax: 315-437-5860
Email: info.us@jumo.net
Internet: www.jumousa.com



Approvals/approval marks

| Approval mark | Testing agency | Certificate/certification number | Inspection basis | Valid for |
|-------------------------------|----------------|----------------------------------|------------------|---|
| EHEDG | TUM MAK | No. 02/2006 | Document No. 8 | Process connection 997 JUMO PEKA |
| EHEDG | TUM MAK | No. 03/2006 | Document No. 8 | Process connection 380 screw connection with CIP- compliant conical seal |
| SIL QUALIFIED PL QUALIFIED | - | - | - | Extra code 058 Basic type 902815/10 and 902815/40 in conjunction with declaration of manu- facturer |

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

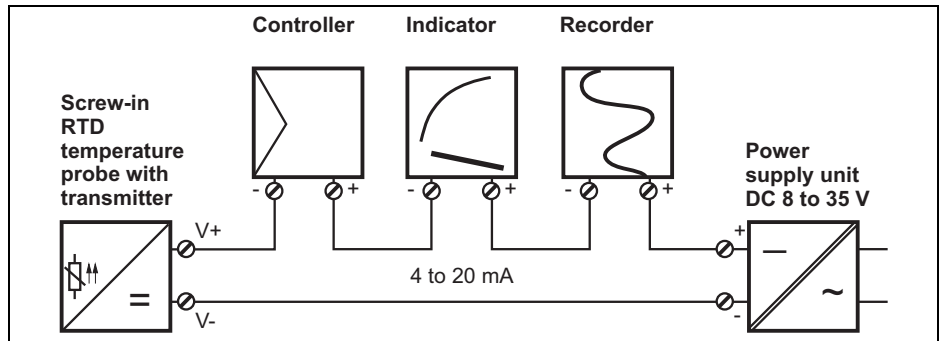
JUMO Instrument Co. Ltd.
 JUMO House
 Temple Bank, Riverway
 Harlow, Essex CM20 2DY, UK
 Phone: +44 1279 635533
 Fax: +44 1279 635262
 Email: sales@jumo.co.uk
 Internet: www.jumo.co.uk

JUMO Process Control, Inc.
 6733 Myers Road
 East Syracuse, NY 13057, USA
 Phone: 315-437-5866
 1-800-554-5866
 Fax: 315-437-5860
 Email: info.us@jumo.net
 Internet: www.jumousa.com

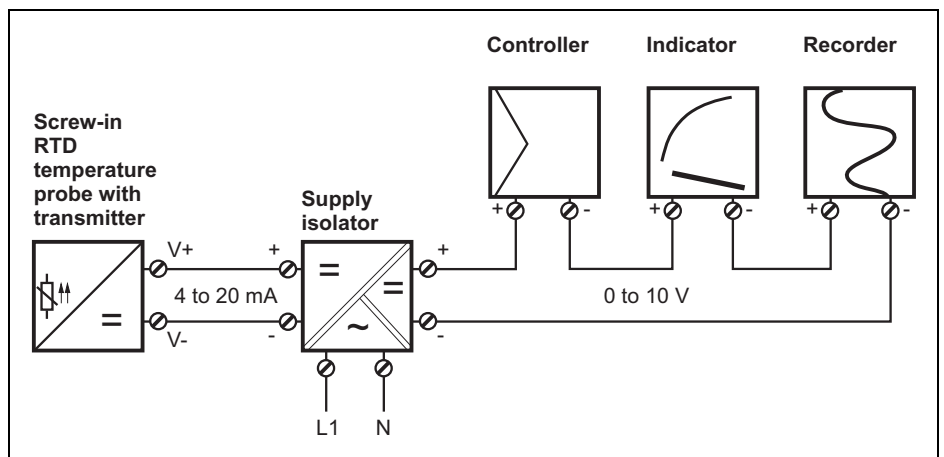


Connection examples with transmitter

Connection example with power supply unit

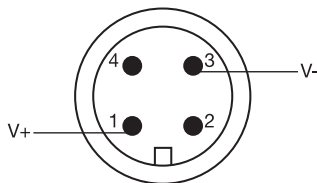
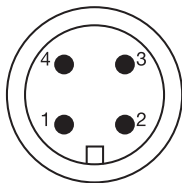


Connection example with supply isolator



Connection diagram

Machine connector M12 x 1, 4-pin according to IEC 60947-5-2



Warning:
 Do not connect Pin 2 and 4 to voltage!

| Electrical connection | Terminal assignment |
|--|---------------------|
| Basic type 902815/10 and 902815/40 without transmitter | |
| Screw-in RTD temperature probe in two-wire circuit | |
| Screw-in RTD temperature probe in four-wire circuit | |
| Basic type 902815/20, 902815/21, and 902815/41 with programmable transmitter | |
| Voltage supply DC 8 to 35 V | |
| Current output 4 to 20 mA | |
| Setup communication via special configuration cable (for configuration only, continuous operation is not admissible) | |

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

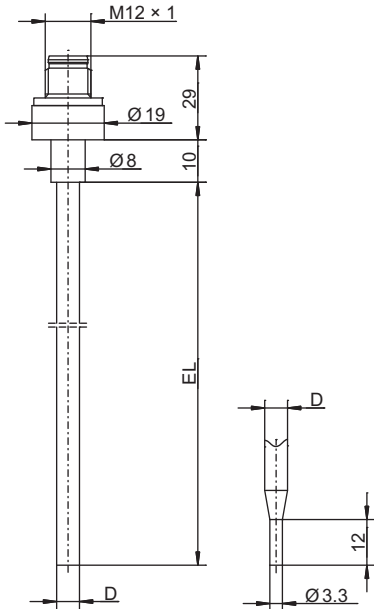
JUMO Instrument Co. Ltd.
 JUMO House
 Temple Bank, Riverway
 Harlow, Essex CM20 2DY, UK
 Phone: +44 1279 635533
 Fax: +44 1279 635262
 Email: sales@jumo.co.uk
 Internet: www.jumo.co.uk

JUMO Process Control, Inc.
 6733 Myers Road
 East Syracuse, NY 13057, USA
 Phone: 315-437-5866
 1-800-554-5866
 Fax: 315-437-5860
 Email: info.us@jumo.net
 Internet: www.jumousa.com

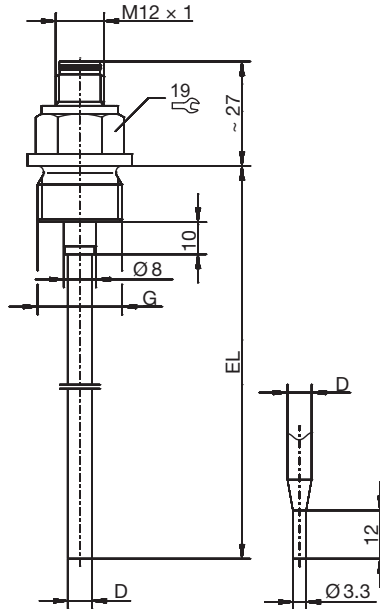


Dimensions

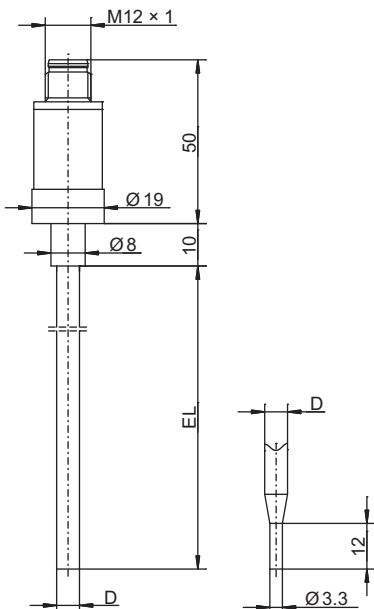
Basic types



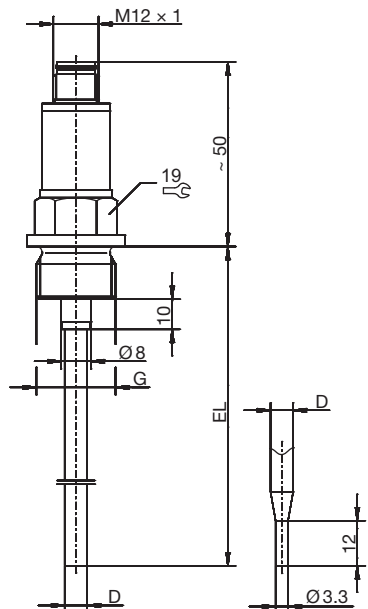
Basic type 902815/10
 with process connection PA 000



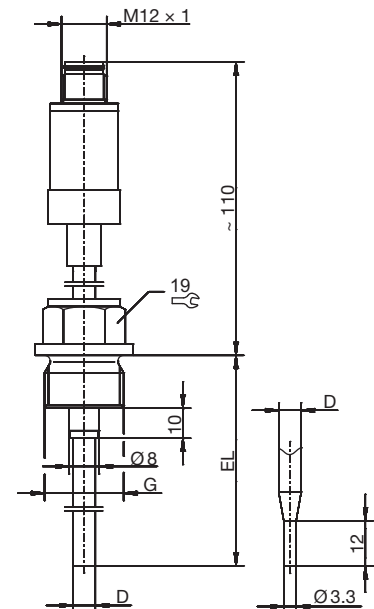
Basic type 902815/10
 with process connection PA 104



Basic type 902815/20
 with process connection PA 000



Basic type 902815/20
 with process connection PA 104



Basic type 902815/21
 with process connection PA 104

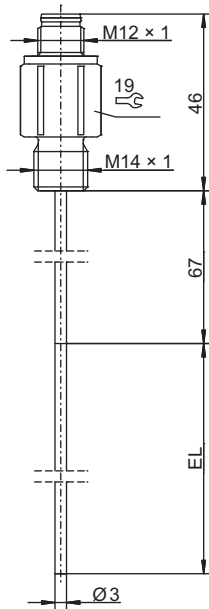
JUMO GmbH & Co. KG
Delivery address: Mackenrodtstraße 14
36039 Fulda, Germany
Postal address: 36035 Fulda, Germany
Phone: +49 661 6003-0
Fax: +49 661 6003-607
Email: mail@jumo.net
Internet: www.jumo.net

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

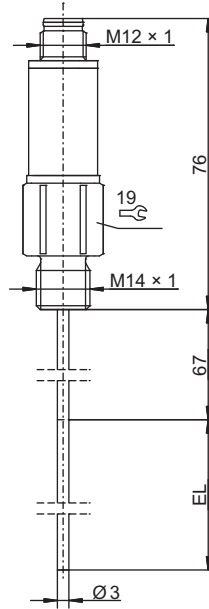
JUMO Process Control, Inc.
6733 Myers Road
East Syracuse, NY 13057, USA
Phone: 315-437-5866
1-800-554-5866
Fax: 315-437-5860
Email: info.us@jumo.net
Internet: www.jumousa.com



Basic types



Basic type 902815/40
with process connection PA 120



Basic type 902815/41
with process connection PA 120

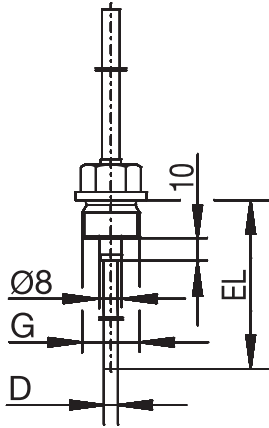
JUMO GmbH & Co. KG
 Delivery address: Mackenrodtstraße 14
 36039 Fulda, Germany
 Postal address: 36035 Fulda, Germany
 Phone: +49 661 6003-0
 Fax: +49 661 6003-607
 Email: mail@jumo.net
 Internet: www.jumo.net

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

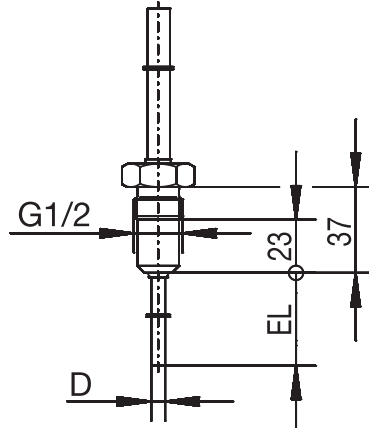
JUMO Process Control, Inc.
 6733 Myers Road
 East Syracuse, NY 13057, USA
 Phone: 315-437-5866
 1-800-554-5866
 Fax: 315-437-5860
 Email: info.us@jumo.net
 Internet: www.jumousa.com



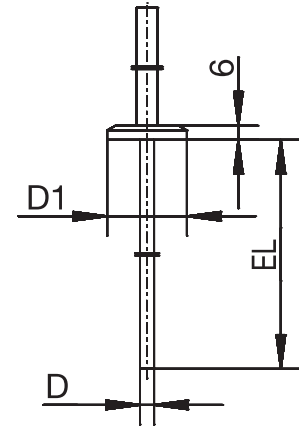
Process connections PA



| PA | G |
|-----|-----|
| 103 | 3/8 |
| 104 | 1/2 |

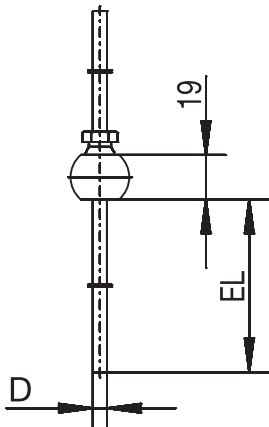


| PA | |
|-----|--|
| 380 | |



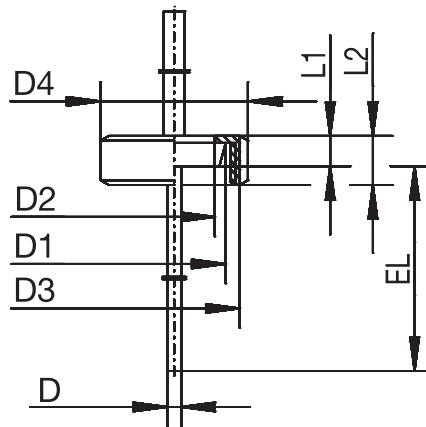
| PA | DN | D1 |
|-----|---------|--------|
| - | - | Ø 25 |
| 611 | 10/20 | Ø 34 |
| 613 | 25/1" | Ø 50.5 |
| 613 | 40/1.5" | Ø 50.5 |
| 616 | 50/2" | Ø 64 |
| 617 | 2.5" | Ø 77.5 |

Screw connection



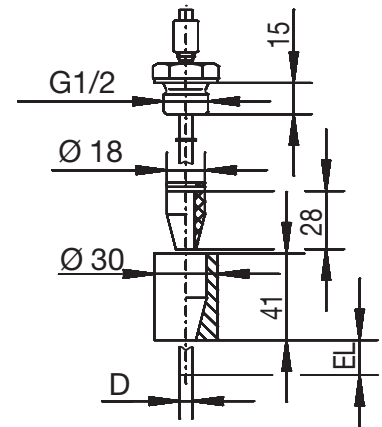
| PA | |
|-----|--|
| 681 | |

Screw connection with CIP-compliant conical seal



| PA | DN | D1 | D2 | D3 | D4 | L1 | L2 |
|-----|----|------|------|-----------|------|----|----|
| 601 | 10 | Ø 22 | Ø 18 | RD 28×1/8 | Ø 38 | 9 | 18 |
| 604 | 25 | Ø 44 | Ø 35 | RD 52×1/6 | Ø 63 | 13 | 21 |
| 605 | 32 | Ø 50 | Ø 41 | RD 58×1/6 | Ø 70 | 13 | 21 |

Clamping socket according to DIN 32676 (clamp)



| PA | |
|-----|--|
| 682 | |

Ball welding socket with threaded fitting

Taper socket with union nut according to DIN 11851 (dairy compression fitting)

Welding socket with CIP-compliant conical seal

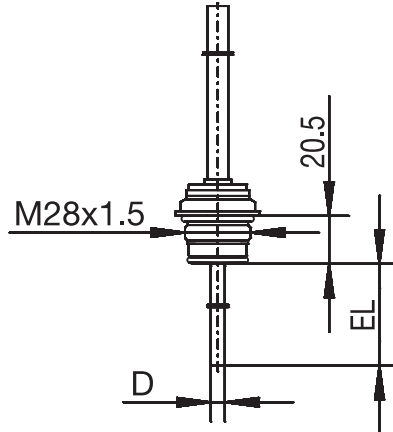
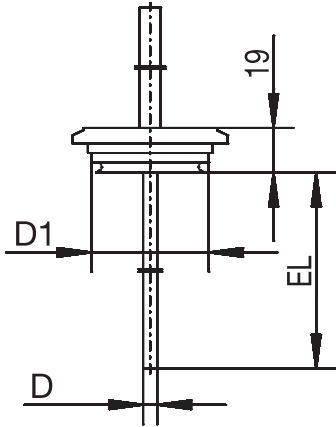
JUMO GmbH & Co. KG
 Delivery address: Mackenrodtstraße 14
 36039 Fulda, Germany
 Postal address: 36035 Fulda, Germany
 Phone: +49 661 6003-0
 Fax: +49 661 6003-607
 Email: mail@jumo.net
 Internet: www.jumo.net

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

JUMO Process Control, Inc.
 6733 Myers Road
 East Syracuse, NY 13057, USA
 Phone: 315-437-5866
 1-800-554-5866
 Fax: 315-437-5860
 Email: info.us@jumo.net
 Internet: www.jumousa.com



Process connections PA



| PA | DN | D1 |
|-----|-------|------|
| 684 | 15/10 | Ø 31 |
| 685 | 32/25 | Ø 50 |
| 686 | 50/40 | Ø 68 |

| VARIVENT® | Clamp | Aseptic | Welding socket |
|-----------|-------------|-----------|----------------|
| DN 25/32 | DN 25/32/40 | DN 40 | Ø 55 mm |
| DN 40-125 | DN 50 | DN 50 | - |
| - | - | NKS DN 40 | - |

VARIVENT® connection

JUMO PEKA PA 997
 process connection adapter,
 see data sheet 409711

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 Instrument Co. Ltd.

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

JUMO Process Control, Inc.

6733 Myers Road
East Syracuse, NY 13057, USA
Phone: 315-437-5866
1-800-554-5866
Fax: 315-437-5860
Email: info.us@jumo.net
Internet: www.jumousa.com



Setup program

The setup program is used for the configuration of the programmable two-wire transmitter using a PC.

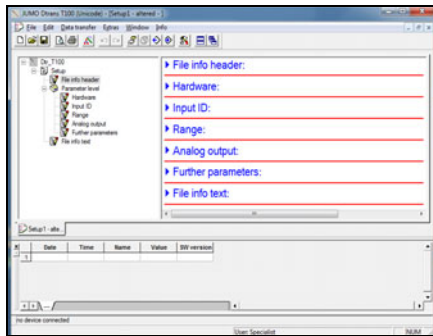
For this purpose the following is required:

- Please only use the configuration cable, 4-pin with connector and socket M12 × 1, and Western plug RJ-45 with part no. 00484692.
- PVC connecting cable, length 2,000 mm
- PC interface with USB/TTL converter and USB cable

(See also accessories for the programmable two-wire transmitter)

The two-wire transmitter must be connected to a voltage supply for configuration.

If no power supply unit or supply isolator is available, it can also be supplied using a 9 V block battery.



Configurable parameters

Measuring point identification

- TAG number

Measuring range configurable in °C/°F

- Offset
- Measuring range start
- Measuring range end

Analog output

- Reversion of the output
- Signal for probe break/short-circuit

Other parameters

- Filter time constant
- Unit

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

JUMO Process Control, Inc.
 6733 Myers Road
 East Syracuse, NY 13057, USA
 Phone: 315-437-5866
 1-800-554-5866
 Fax: 315-437-5860
 Email: info.us@jumo.net
 Internet: www.jumousa.com



Order details

(1) Basic type

| | | |
|-----------|---|--|
| 902815/10 | Screw-in RTD temperature probe without transmitter, connection M12 × 1 machine connector | |
| 902815/20 | Screw-in RTD temperature probe ^a with programmable transmitter ^b , connection M12 × 1 machine connector | |
| 902815/21 | Screw-in RTD temperature probe ^a with programmable transmitter ^b , connection M12 × 1 machine connector, high temperature version with extension tube | |

(2) Operating temperature in °C

| | | |
|---|-----|---|
| x | 370 | -50 to +150 °C (max. transmitter temperature 85 °C) |
| x | 380 | -50 to +200 °C |
| x | 386 | -50 to +260 °C (max. transmitter temperature 85 °C) |

(3) Measuring insert

| | | |
|---|------|--------------------------------|
| x | 1003 | 1× Pt100 in two-wire circuit |
| x | 1005 | 1× Pt1000 in two-wire circuit |
| x | 1011 | 1× Pt100 in four-wire circuit |
| x | 1013 | 1× Pt1000 in four-wire circuit |
| x | 2003 | 2× Pt100 in two-wire circuit |
| x | 2005 | 2× Pt1000 in two-wire circuit |

(4) Tolerance class according to DIN EN 60751

| | | |
|---|---|----------|
| x | 1 | Class B |
| x | 2 | Class A |
| x | 3 | Class AA |

(5) Protection tube diameter D in mm

| | | |
|---|---|--------|
| x | 6 | Ø 6 mm |
|---|---|--------|

(6) Insertion length EL in mm (EL 50 to 500 mm)

| | | |
|---|-----|---|
| x | 50 | 50 mm |
| x | 100 | 100 mm |
| x | 150 | 150 mm |
| x | 200 | 200 mm |
| x | ... | Please specify in plain text (50 mm increments) |

(7) Process connection PA

| | | |
|---|-----|---|
| x | 000 | Without (for basic type 902815/20 max. transmitter temperature 85 °C) |
| x | 103 | Screw connection G 3/8 |
| x | 104 | Screw connection G 1/2 |
| x | 380 | Screw connection G 1/2 with CIP-compliant conical seal with EHEDG certification |
| x | 601 | Taper socket with union nut DN 10 DIN 11851 (dairy compression fitting) |
| x | 604 | Taper socket with union nut DN 25 DIN 11851 (dairy compression fitting) |
| x | 605 | Taper socket with union nut DN 32 DIN 11851 (dairy compression fitting) |
| x | 611 | Clamping socket (clamp) DN 10/20 DIN 32676 |
| x | 613 | Clamping socket (clamp) DN 25/40 (1"/1.5") DIN 32676 |
| x | 616 | Clamping socket (clamp) DN 50 (2") DIN 32676 |
| x | 617 | Clamping socket (clamp) 2.5" similar to DIN 32676 |
| x | 681 | Ball welding socket with threaded fitting |
| x | 682 | Welding socket with CIP-compliant conical seal |
| x | 684 | VARIVENT® connection DN 15/10 |

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

JUMO Process Control, Inc.
 6733 Myers Road
 East Syracuse, NY 13057, USA
 Phone: 315-437-5866
 1-800-554-5866
 Fax: 315-437-5860
 Email: info.us@jumo.net
 Internet: www.jumousa.com



Order details

(1) Basic type

| | | |
|-----------|--|--|
| 902815/40 | Screw-in RTD temperature probe without transmitter, connection M12 × 1 machine connector and adaptation system for thermowell 902812/10 (please select associated thermowells in data sheet 902812) | |
| 902815/41 | Screw-in RTD temperature probe ^a with programmable transmitter ^b , connection M12 × 1 machine connector and adaptation system for thermowell 902812/10 (please select associated thermowells in data sheet 902812) | |

(2) Operating temperature in °C

| | | |
|---|-----|---|
| x | 380 | -50 to +200 °C |
| x | 386 | -50 to +260 °C (max. transmitter temperature 85 °C) |

(3) Measuring insert

| | | |
|-----|------|---------------------------------|
| x | 1003 | 1 × Pt100 in two-wire circuit |
| x | 1005 | 1 × Pt1000 in two-wire circuit |
| x | 1011 | 1 × Pt100 in four-wire circuit |
| x x | 1013 | 1 × Pt1000 in four-wire circuit |
| x | 2003 | 2 × Pt100 in two-wire circuit |
| x | 2005 | 2 × Pt1000 in two-wire circuit |

(4) Tolerance class according to DIN EN 60751

| | | |
|-----|---|----------|
| x | 1 | Class B |
| x x | 2 | Class A |
| x | 3 | Class AA |

(5) Protection tube diameter D in mm

| | | |
|-----|---|--------|
| x x | 3 | Ø 3 mm |
|-----|---|--------|

(6) Insertion length EL in mm

| | | |
|-----|-----|--------|
| x x | 50 | 50 mm |
| x x | 100 | 100 mm |
| x x | 150 | 150 mm |

(7) Process connection PA

| | | |
|-----|-----|--|
| x x | 120 | Screw connection M14 × 1 for adapting hygienic thermowells |
|-----|-----|--|

(8) Protection tube material

| | | |
|-----|----|-----------------|
| x x | 20 | Stainless steel |
|-----|----|-----------------|

(9) Extra code

| | | |
|-----|-----|--|
| x x | 000 | None |
| x | 058 | SIL and PL compatible |
| x | 100 | Customer-specific configuration (specifications in plain text) |

^a This JUMO product is licensed under United States and Canadian patents. Purchasers of the JUMO product outside of the United States and Canada should advise JUMO of any planned sales of the product into the United States and Canada.

^b Specify measuring range in plain text.

| | | | | | | | | | | | | | | | | | |
|----------------------|-----------|-----|-----|-----|------|-----|-----|-----|-----|-----|----|---|-----|---|----|---|-----|
| Order code | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | ... | | | | | | | |
| Order example | 902815/40 | - | 380 | - | 1003 | - | 1 | - | 3 | - | 50 | - | 120 | - | 20 | / | 000 |

^a List extra codes in sequence, separated by commas.

Scope of delivery

- 1 device in the ordered version
- 1 operating manual

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 Instrument Co. Ltd.

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

JUMO Process Control, Inc.

6733 Myers Road
East Syracuse, NY 13057, USA
Phone: 315-437-5866
1-800-554-5866
Fax: 315-437-5860
Email: info.us@jumo.net
Internet: www.jumousa.com

**Stock versions**

| Order code | Part no. |
|---------------------------------------|----------|
| 902815/10-380-1011-1-6-100-104-24/000 | 00508463 |
| 902815/10-380-1011-3-6-50-104-24/000 | 00516241 |
| 902815/10-380-1011-3-6-150-104-24/000 | 00516245 |
| 902815/10-380-1011-3-6-200-104-24/000 | 00516246 |
| 902815/20-370-1013-2-6-50-104-24/000 | 00508279 |
| 902815/20-370-1013-2-6-100-380-24/452 | 00513650 |
| 902815/20-370-1013-2-6-100-104-24/000 | 00491506 |
| 902815/20-370-1013-2-6-150-000-24/000 | 00506630 |
| 902815/20-370-1013-2-6-200-104-24/000 | 00503113 |

Accessories for programmable two-wire transmitter

| Description | Part no. |
|--|----------|
| Setup program on CD-ROM, multilingual | 00485016 |
| Configuration cable, 4-pin with connector and socket M12 × 1, and Western plug RJ-45 | 00484692 |
| PVC connecting cable, 4-pin with socket M12 × 1, length 2,000 mm | 00404585 |
| 5-pin cable socket M12 × 1, straight, without connecting cable to be patched by the customer | 00419130 |
| 5-pin cable socket M12 × 1, angled, without connecting cable to be patched by the customer | 00419133 |
| PC interface with USB/TTL converter and USB cable | 00456352 |
| Power supply units for transmitter, 1- and 4-way (data sheet 707500) | - |
| Isolation amplifier and supply isolator for the galvanic isolation of standard signals and voltage supply for two-wire transmitter (data sheet 707530) | - |