

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-JUMO
1-800-554-JUMO
Fax: 315-697-5867
e-mail: info@jumo.us
Internet: www.jumo.us



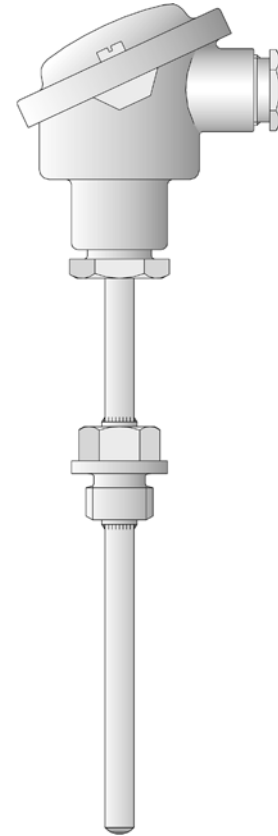
Screw-in RTD temperature probes with terminal head form B

- For temperatures from -50 to +600 °C
- with replaceable measuring insert
- As single or double RTD temperature probes
- Connection head form B, BUZ, BUZH, BBK
- Available with transmitter

Screw-in RTD temperature probes are preferentially used for measuring temperatures in fluids and gasses. A decisive selection criterion is the reliable sealing feature of this installation type with vacuum and with overpressure. The application areas are, among others, in the air conditioning technology and refrigeration engineering as well as the HVAC, kiln and apparatus engineering sector.

The connection head is suitable for temperatures up to +100 °C. The versions BUZ, BUZH and BBK are also available in addition to the standard connection head, form B.

The measuring insert is normally fitted with a Pt100 temperature probe as per DIN EN 60751, class B in 2-wire circuit, versions with Pt500 or Pt1000 are also possible. Connection is available in 3-wire or 4-wire-circuitry as an option. A transmitter can be optionally integrated into the connection head.



Technical data

Terminal head

Form B DIN 43729, die-cast aluminum, M 20x1.5; IP65, ambient temperature -40 to +100 °C
Form BUZ, die-cast aluminum, M 20x1.5; IP65, ambient temperature -40 to +100 °C
Form BUZH, die-cast aluminum, M 20x1.5; IP65, ambient temperature -40 to +100 °C
Form BBK, plastic, M 20x1.5; IP54, ambient temperature -30 to +130 °C
Caution: reduced ambient temperature range when using transmitters, data sheets 70.7010, 70.7030 and 70.7060

Extension tube

Stainless steel 1.4571, length 130 mm (150 mm for type 902020/50.../51...)

Process connection

Thread, stainless steel 1.4571
Sheath, stainless steel 1.4571 or steel 1.7335

Sheath

Stainless steel 1.4571, Ø 9 mm, Ø 11 mm, Ø 12 mm

Measuring insert

Replaceable, Pt100 temperature probe, DIN EN 60751, class B, 2-wire circuit

Response times

$t_{0.9}$ approx. 50 s, in water 0.2 m/s, Ø 9 mm

Transmitter

analog transmitter, 4 to 20 mA output, data sheet 70.7030
analog transmitter, 0 to 10 V output, data sheet 70.7030
programmable transmitter, 4 to 20 mA/20 to 4 mA output, data sheet 70.7010
Wtrans B programmable head transducer with radio transmission, data sheet 70.7060 (suitable Wtrans receivers, data sheet 90.2931)

Accessories

Sheath, data sheet 90.9710 (90.9721)

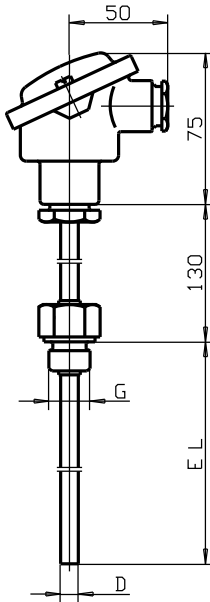
JUMO GmbH & Co. KG
 Delivery address: Mackenrodtstraße 14,
 36039 Fulda, Germany
 Postal address: 36035 Fulda, Germany
 Phone: +49 661 6003-0
 Fax: +49 661 6003-607
 e-mail: mail@jumo.net
 Internet: www.jumo.net

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

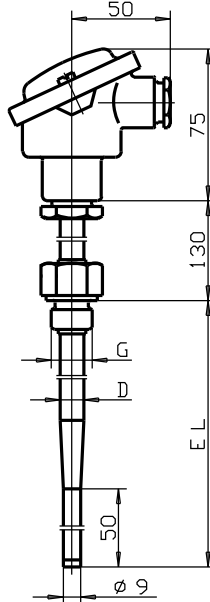
JUMO Process Control, Inc.
 8 Technology Boulevard
 Canastota, NY 13032, USA
 Phone: 315-697-JUMO
 1-800-554-JUMO
 Fax: 315-697-5867
 e-mail: info@jumo.us
 Internet: www.jumo.us



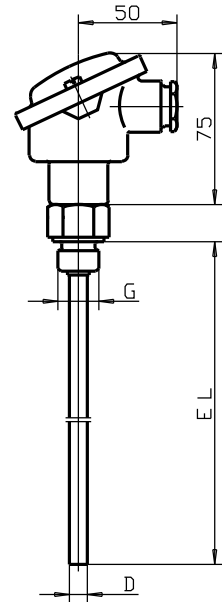
Dimensions



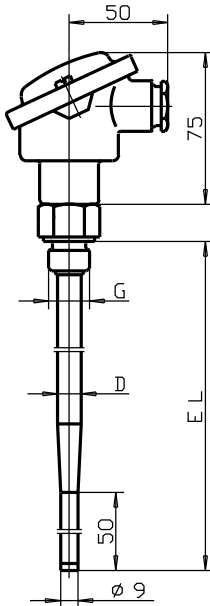
Basic type 902020/10



Basic type 902020/11



Basic type 902020/20

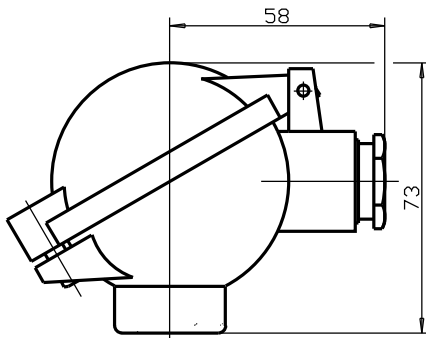


Basic type 902020/21

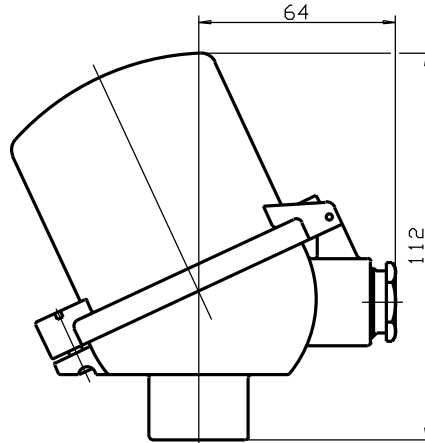
JUMO GmbH & Co. KG
Delivery address: Mackenrodtstraße 14,
36039 Fulda, Germany
Postal address: 36035 Fulda, Germany
Phone: +49 661 6003-0
Fax: +49 661 6003-607
e-mail: mail@jumo.net
Internet: www.jumo.net

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

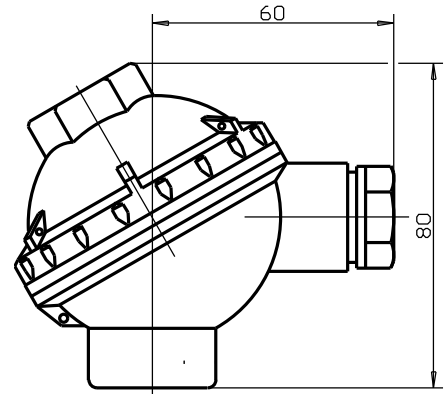
JUMO Process Control, Inc.
8 Technology Boulevard
Canastota, NY 13032, USA
Phone: 315-697-JUMO
1-800-554-JUMO
Fax: 315-697-5867
e-mail: info@jumo.us
Internet: www.jumo.us



Terminal head Form BUZ
extra code 320



Terminal head Form BUZH
extra code 321



Connection head form BBK
extra code 322

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

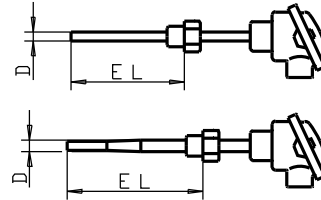
JUMO Process Control, Inc.
 8 Technology Boulevard
 Canastota, NY 13032, USA
 Phone: 315-697-JUMO
 1-800-554-JUMO
 Fax: 315-697-5867
 e-mail: info@jumo.us
 Internet: www.jumo.us



Order specifications: Screw-in RTD temperature probe with form B connection head

(1) Basic type

902020/10	Screw-in RTD temperature probes with extension tube and continuous sheath
902020/11	Screw-in RTD temperature probes with extension tube and stepped sheath



(2) Operating temperature in °C

x x	402	-50 to +400 °C (standard)
x x	415	-50 to +600 °C

(3) Measuring insert

x x	1001	1x Pt 100 in 3-wire-circuit
x x	1003	1x Pt 100 in 2-wire circuit
x x	1011	1x Pt 100 in 4-wire circuit
x x	2001	2x Pt100 in 3-wire circuit
x x	2003	2x Pt 100 in 2-wire circuit

(4) Tolerance class as per DIN EN 60751

x x	1	Class B (standard)
x x	2	Class A

(5) Sheath diameter D in mm

x	9	Ø 9 mm
x	11	Ø 11 mm
x	12	Ø 12 mm stepped down to 9 mm

(6) Fitting length EL in mm (100 ≤ EL ≤ 1000, EL ≤ 700 for type 902020/11)

x x	160	160 mm
x	220	220 mm
x x	250	250 mm
x	280	280 mm
x x	400	400 mm
x x	...	Specification in plain text (50 mm steps)

(7) Process connection

x x	104	Screw-connection G 1/2
x x	105	Screw-connection G 3/4
x x	106	Screw connection G 1
x x	126	Screw-connection M 18 x 1.5

(8) Extra codes

x x	000	no extra code
x x	306	Extension tube 70mm
x x	320	terminal head Form BUZ
x x	321	terminal head Form BUZH
x x	322	Connection head form BBK
x x	330	1x analog transmitter, 4 to 20 mA ² output, data sheet 70.7030
x x	331	1x transmitter programmable output 4 to 20 mA/20 to 4 mA ³ , data sheet 70.7010
x x	333	1x analog transmitter, 0 to 10V ² output, data sheet 70.7030
x x	334	2x analog transmitters, 4 to 20 mA ² output, data sheet 70.7030
x x	335	2x transmitter programmable output 4 to 20 mA/20 to 4 mA ³ , data sheet 70.7010
x x	337	2x analog transmitters, 0 to 10 V ² output, data sheet 70.7030
x x	859	1x Wtrans B programmable head transducer with radio transmission, data sheet 70.7060

Order code	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	...	1					
Order example	902020/10	-	402	-	1001	-	1	-	11	-	250	-	106	/	000

¹ List extra codes in sequence, separated by commas.
² Specify measuring range in plain text.
³ Specify measuring range and output signal in plain text.

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

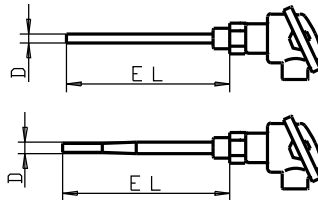
JUMO Instrument Co. Ltd.
 JUMO House
 Temple Bank, Riverway
 Harlow, Essex CM20 2DY, UK
 Phone: +44 1279 635533
 Fax: +44 1279 635262
 e-mail: sales@jumo.co.uk
 Internet: www.jumo.co.uk

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



Order specifications: Screw-in RTD temperature probe with connection head form B

(1) Basic type	
902020/20	Screw-in RTD temperature probes without extension tube and continuous sheath
902020/21	Screw-in RTD temperature probes without extension tube and stepped sheath
(2) Operating temperature in °C	
x x	402 -50 to +400 °C (standard)
x x	415 -50 to +600 °C
(3) Measuring insert	
x x	1001 1x Pt 100 in 3-wire-circuit
x x	1003 1x Pt 100 in 2-wire circuit
x x	1011 1x Pt 100 in 4-wire circuit
x x	2001 2x Pt100 in 3-wire circuit
x x	2003 2x Pt 100 in 2-wire circuit
(4) Tolerance class as per DIN EN 60751	
x x	1 Class B (standard)
x x	2 Class A
(5) Sheath diameter D in mm	
	7 Ø 7 mm
x	9 Ø 9 mm
x	11 Ø 11 mm
x	12 Ø 12 mm stepped down to 9 mm
(6) Fitting length EL in mm (100 ≤ EL ≤ 1000, EL ≤ 700 for type 902020/21)	
x x	100 100 mm
x x	160 160 mm
x x	250 250 mm
x x	400 400 mm
x x	... Specification in plain text (50 mm steps)
(7) Process connection	
x x	104 Screw-connection G 1/2
x x	105 Screw-connection G 3/4
x x	106 Screw connection G 1
x x	126 Screw-connection M 18 x 1.5
(8) Extra codes	
x x	000 no extra code
x x	320 terminal head Form BUZ
x x	321 terminal head Form BUZH
x x	322 Connection head form BBK
x x	330 1x analog transmitter, 4 to 20 mA ² output, data sheet 70.7030
x x	331 1x transmitter programmable output 4 to 20 mA/20 to 4 mA ³ , data sheet 70.7010
x x	333 1x analog transmitter, 0 to 10 V ² output, data sheet 70.7030
x x	334 2x analog transmitters, 4 to 20 mA ² output, data sheet 70.7030
x x	335 2x transmitter, programmable, output 4 to 20 mA/20 to 4 mA ³ , data sheet 70.7010 (95.6550)
x x	337 2x analog transmitters, 0 to 10 V ² output, data sheet 70.7030
x x	859 1x Wtrans B programmable head transducer with radio transmission, data sheet 70.7060



Order code (1) - (2) - (3) - (4) - (5) - (6) - (7) / (8) ,...¹

Order example 902020/20 - 402 - 1001 - 1 - 9 - 160 - 104 / 000

¹ List extra codes in sequence, separated by commas.
² Specify measuring range in plain text.
³ Specify measuring range and output signal in plain text.

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-JUMO
 1-800-554-JUMO
 Fax: 315-697-5867
 e-mail: info@jumo.us
 Internet: www.jumo.us



Stock versions

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Sales No.:
902020/10	- 402	- 1003	- 1	- 9	- 160	- 104	/ 000	90/00055562
902020/10	- 402	- 1003	- 1	- 9	- 250	- 104	/ 000	90/00055563
902020/10	- 402	- 1003	- 1	- 9	- 400	- 104	/ 000	90/00055564
902020/10	- 402	- 2003	- 1	- 9	- 160	- 104	/ 000	90/00055565
902020/10	- 402	- 2003	- 1	- 9	- 250	- 104	/ 000	90/00055566
902020/10	- 402	- 2003	- 1	- 9	- 400	- 104	/ 000	90/00055567
902020/10	- 402	- 1001	- 1	- 9	- 160	- 104	/ 330 (0 to 100 °C)	90/00054616
902020/10	- 402	- 1001	- 1	- 9	- 160	- 104	/ 330 (0 to 200 °C)	90/00087522
902020/10	- 402	- 1001	- 1	- 9	- 250	- 104	/ 330 (0 to 100 °C)	90/00054617
902020/10	- 402	- 1001	- 1	- 9	- 250	- 104	/ 330 (0 to 200 °C)	90/00087527
902020/10	- 402	- 1001	- 1	- 9	- 400	- 104	/ 331 (0 to 100 °C)	90/00335111

Accessories for programmable 2-wire transmitter type 707010 in the accessories data sheet 70.9770

Part	Sales No.:
PC interface with TTL/RS232 converter and adapter (socket connector)	70/00350260
PC interface with USB/TTL converter, adapter (socket connector) and adapter (pins)	70/00456352
Special programming (standard measuring range 0 to 100 °C)	-
Setup program on CD-ROM, multilingual	70/00378733

Accessories for Wtrans B, programmable head transmitter with radio transmission Type 707060

Part	Sales No.:
Lithium battery 3.6 V, 2.2 Ah (size AA)	70/00547559
PC interface with USB/TTL converter, adapter (socket) and adapter (pins)	70/00456352
PC interface with TTL/RS232 converter and adapter (socket connector)	70/00350260
Setup program on CD-ROM, multilingual	70/00488887
Setup program including OnlineChart on CD-ROM, multilingual	70/00549067
OnlineChart activation	70/00549188