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 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

JUMO Process Control, Inc.
6733 Myers 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

JUMO VIBROtemp

Screw-In RTD Temperature Probe with Plug Connector

- **For temperatures from -50 to +270 °C (temporarily up to 300 °C)**
- **Vibration-resistant construction**
- **Application areas: commercial vehicles, construction and agricultural machinery, motors, compressors, and railway technology**
- **Various plug connectors; locked to ensure contact**
- **Protection type up to IP67/IP69 according to DIN EN 60529 (IP69K according to DIN 40050)**



Even under pressure, screw-in RTD temperature probes in the VIBROtemp series enable reliable temperature measurements in commercial vehicles, construction machinery, agricultural machinery, motors, compressors, and in railway technology.

The vibration-resistant construction achieves excellent long-term stability even in tough operating conditions.

Different plug connections are available to suit the specific application area. When plugged in, protection type IP67/IP69 according to DIN EN 60529 or IP69K according to DIN 40050 is fulfilled.

The protection tube is reduced to 4 mm, which enables short response times.

The measuring insert is a Pt100 temperature sensor according to DIN EN 60751:2009 / IEC 60751:2008, class B in two-wire circuit as standard. Versions with Pt500 or Pt1000 as well as PTC or NTC temperature sensors are also possible.

Approvals/approval marks (see "Technical data")

Safety Integrity Level SIL QUALIFIED

Performance Level PL QUALIFIED

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 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

JUMO Process Control, Inc.
6733 Myers 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

Technical data

Basic types	902040/10: AMP plug connector (Junior Power Timer), IP67 902040/12: machine connector M12 × 1, IP67 902040/15: bayonet connector according to DIN 72585, IP69/IP69K 902040/17: Bosch compact connector 1.1, IP69/IP69K
Process connection	Thread M14 × 1.5 (standard), more upon request
Protection tube	Stainless steel or brass
Measuring insert	Pt100, Pt500, or Pt1000 temperature sensors according to DIN EN 60751:2009 / IEC 60751:2008, class B in two-wire circuit, more upon request
Vibration stability (depending on version)	Frequencies from 10 to 3000 Hz Acceleration up to 30 g Shock up to 100 g/5 ms
Protection type (when plugged in)	IP67/IP69 according to DIN EN 60529 (IP69K according to DIN 40050), see technical data for “Basic Types”
Response times	In water with a flow velocity of 0.4 m/s Ø 4 mm: $t_{0.5}$ = 1.2 s, $t_{0.9}$ = 6 s
Accessories	Coupling for each basic type (see data sheet 909760)
Variable features (special version)	Insertion length Protection tube diameter Wall thickness Process connection (thread type) Thread undercut (DIN 3852 standard, form A) Protection tube material Measuring insert Extension tube Connector

Approvals/approval marks

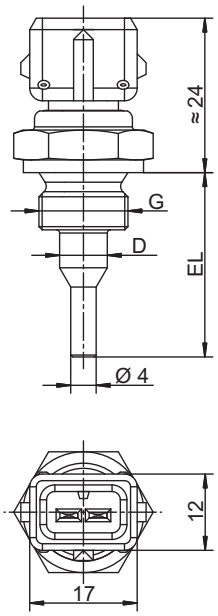
Approval mark	Test facility	Certificate/certification number	Inspection basis	Valid for
SIL QUALIFIED PL QUALIFIED	-	-	-	Extra code 658 in conjunction with declaration of manufacturer

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

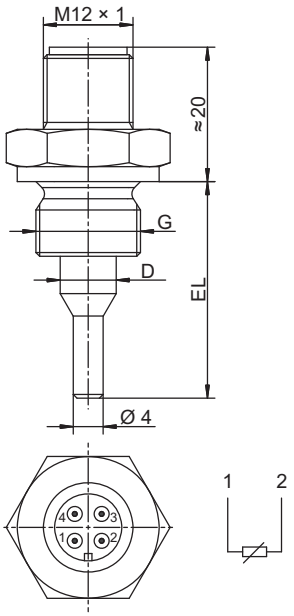
JUMO Instrument Co. Ltd.
JUMO House
Temple Bank, Riverway
Harlow, Essex, CM20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

JUMO Process Control, Inc.
6733 Myers 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

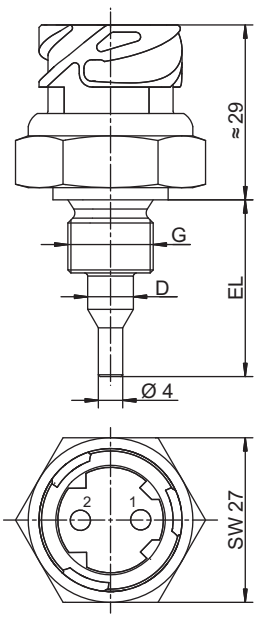
Dimensions



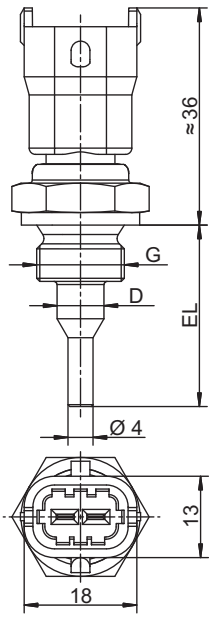
Basic type 902040/10



Basic type 902040/12



Basic type 902040/15



Basic type 902040/17

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 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

JUMO Process Control, Inc.
6733 Myers 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**
				902040/10		Screw-in RTD temperature probe with AMP plug connector (Junior Power Timer)
				902040/12		Screw-in RTD temperature probe with machine connector M12 × 1
				902040/15		Screw-in RTD temperature probe with bayonet connector according to DIN 72585
				902040/17		Screw-in RTD temperature probe with Bosch compact connector 1.1
					(2)	**Operating temperature in °C**
x	x	x	x	370		-50 to +150 °C
x		x	x	387		-50 to +270 °C (temporarily 300 °C)
					(3)	**Measuring insert**
x	x	x	x	1003		1× Pt100 in two-wire circuit
x	x	x	x	1004		1× Pt500 in two-wire circuit
x	x	x	x	1005		1× Pt1000 in two-wire circuit
x	x	x	x	9999		According to customer specification
					(4)	**Tolerance class according to DIN EN 60751:2009 / IEC 60751:2008**
x	x	x	x	0		None
x	x	x	x	1		Class B
x	x	x	x	2		Class A
					(5)	**Protection tube diameter D in mm**
x	x	x	x	7.5		Ø 7.5 mm stepped down to Ø 4 mm
					(6)	**Insertion length EL in mm**
x	x	x	x	29		29 mm
					(7)	**Process connection**
x	x	x	x	121		Screw connection M14 × 1.5
					(8)	**Protection tube material**
x	x	x	x	20		CrNi (stainless steel)
x	x	x	x	46		CuZn (brass)
					(9)	**Extra codes**
x	x	x	x	000		None
x	x	x	x	658		SIL and PL compatible with safety temperature limiter and safety temperature monitor 70115X

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)
Order code		-		-		-		-		-		-		-		/	
Order example	902040/10	-	387	-	1003	-	1	-	7.5	-	29	-	121	-	20	/	000

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 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

JUMO Process Control, Inc.
6733 Myers 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.
902040/10-387-1003-1-7.5-29-121-20/000	00446901
902040/10-387-1003-1-7.5-29-121-46/000	00447301
902040/12-370-1003-1-7.5-29-121-20/000	00624093
902040/15-387-1003-1-7.5-29-121-20/000	00624094
902040/17-387-1003-1-7.5-29-121-20/000	00624096

Accessories

Designation	Part no.
Coupling for basic type 902040/10 With 2.5 m silicone-insulated connecting cable, IP65, operating temperature -40 to +120 °C Plug connection: AMP, Junior Power Timer	00308880
Set coupling with 6 parts, Junior Power Timer, IP65, operating temperature -40 to +120 °C Coupling for basic type 902040/10 Plug connection: AMP, Junior Power Timer	00089930
Set coupling with 4 parts, Junior Power Timer, operating temperature -20 to +80 °C Coupling for basic type 902040/10 Plug connection: AMP, Junior Power Timer	00201426
Cable socket, angled, 4-pole, M12 × 1 With 2 m PVC connecting cable, IP68, operating temperature -5 to +70 °C For basic type 902040/12 Plug connection: machine connector M12 × 1	00409334
Set coupling with 6 parts, bayonet DIN 72585, IP65, operating temperature -40 to +120 °C Coupling for basic type 902040/15 Plug connection: bayonet connector DIN 72585	00439715
Set coupling with 6 parts, Bosch compact 1.1, IP65, operating temperature -40 to +120 °C Coupling for basic type 902040/17 Plug connection: Bosch compact 1.1	00616005