



JUMO DELOS T

Electronic temperature switch with display and analog output

Application

- Food and pharmaceutical
- CIP/SIP plants
- Mechanical and plant engineering
- Air conditioning and refrigeration applications

Brief description

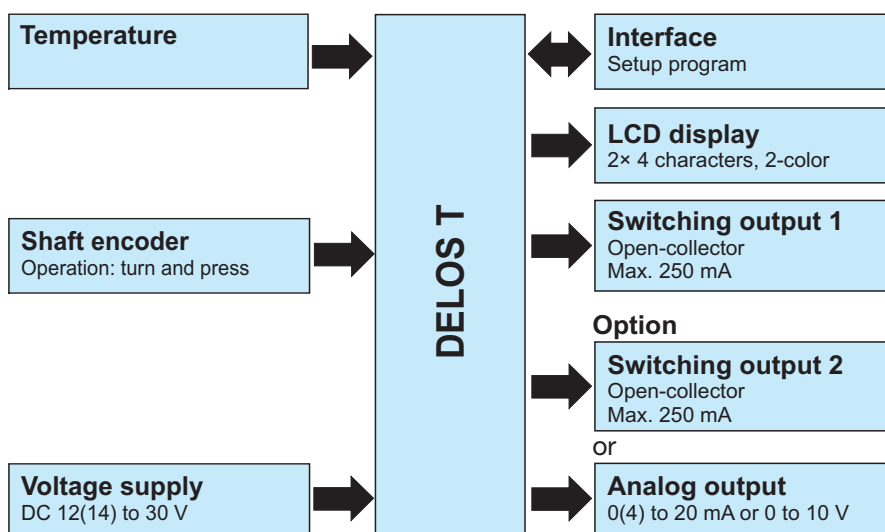
The highly-precise, electronic temperature switch consists of a protection tube with built-in temperature sensor, a process connection, and attached housing with LCD display for the electronics. Depending on the application, the following output variants are available: 1× PNP or 2× PNP switching output (binary output) or 1× PNP switching output and 1× analog output. The configuration of the output signal and the measuring range can be customized. Depending on the version, the electronic temperature switch can be used in an operating temperature range from -50 to +150 °C, -50 to +260 °C, and -50 to +500 °C. The analog output signal 4 to 20 mA, 0 to 20 mA, 0 to 10 V or reversed 20 to 4 mA, 20 to 0 mA, and 10 to 0 V is available in a linearized fashion (temperature linear). The electronic temperature switch is designed for industrial use and complies with the European standards to guarantee electromagnetic compatibility (EMC).

Note: also available as JUMO DELOS SI and HP – precision pressure transmitter with switching contacts and display, see data sheet 405052 and data sheet 405054.



Basic type 902940/10

Block diagram



Special features

- For temperatures from -50 to +260 °C (500 °C)
- Hygienic process connection
- Configuration performed with the rotary encoder on the temperature switch or setup program
- M12 × 1 plug connection; protection type IP67 according to DIN EN 60529 with pushed in machine connector
- Positively lit LCD display

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

Electrical connection	Machine connector M12 × 1, 4-pole according to IEC 60947-5-2
Process connections	Screw connection G 1/4, G 3/8 and G 1/2 Screw connection M12 × 1.5; M14 × 1; M18 × 1.5 and M20 × 1.5 Screw connection 1/2-14NPT Union nut G 3/8 Compression fitting G 1/4 and G 1/2 Screw connection G 1/2 with CIP-compliant conical seal Taper socket with union nut (dairy pipe fitting) Clamping socket (clamp) Ball welding socket with threaded fitting Welding socket with CIP-compliant conical seal VARIVENT® connection ^a JUMO PEKA hygienic process connection
Protection tube	Stainless steel 316 L, material-no. 1.4404/1.4435 Stainless steel 316 Ti, material-no. 1.4751
Protection type	IP67 acc. to DIN EN 60529 with the pushed in machine connector
Response time	t _{0.5} : 3 s in water, flow velocity 0.4 m/s t _{0.9} : 8 s in water, flow velocity 0.4 m/s
Measuring insert	Pt1000 temperature sensor, DIN EN 60751, class A or AA, four-wire circuit

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

General information

Reference conditions	DIN 16086 and DIN EN 60770
Display	Positively lit LCD display
Alignment	The display can be mirror-imaged by 180° using the setup program After installation, the display case can be swiveled to the left or right by ±160° (use the combination tool)
Size	Display 16 × 26 mm, font size 7 mm, 2 × 4-digit
Color	Amber
Switching status display	K1, K2
Temperature unit	°C or °F
Operation	
On the device	With the rotary encoder beneath the sealing screw with combination tool or screwdriver 0.5 × 3 mm or Allen key with width across flats SW 2
With PC	Via the setup program with PC interface

Input

Measurement input (sensor)	1 × Pt1000 temperature sensor, four-wire circuit
Attenuation	0.00 to 99.99 s
Measuring range	
Basic type 902940/10	-50 to +150 °C
Basic type 902940/30	-50 to +260 °C
Basic type 902940/40	-50 to +260 °C
Basic type 902940/50	-50 to +500 °C
Limit deviations	0.15 + 0.002 × t ^a , class A (standard) 0.10 + 0.0017 × t ^a , class AA

^a |t| is the numerical value of the temperature in °C regardless of the prefix sign.

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



Measuring circuit monitoring

Probe short circuit, probe/cable break, underrange, overrange	Analog output 0 to 20 mA, 0 mA or 22 mA user configurable Analog output 4 to 20 mA, 3.4 mA or 22 mA user configurable Analog output 0 to 10 V, 0 V or 10.7 V user configurable Switching outputs, low Additional error message via the LCD display
--	--

Outputs

All analog outputs in three-wire circuit, open collector, PNP switching output

Analog output User configurable	4 to 20 mA and 1× PNP switching output 0 to 20 mA and 1× PNP switching output 0 to 10 V and 1× PNP switching output
Switching output Number Switching type Switching function	1× PNP switching output 2× PNP switching output N/C contact / N/O contact Window/hysteresis
Contact rating Voltage drop from U_B Switching capacity Switching cycles Response time At 50 Hz At 60 Hz Short-circuit proof	PNP ≤ 2 V On ≤ 250 mA; off ≤ 1 mA > 10 million ≤ 200 ms ≤ 320 ms Yes
Load check, current Pulse period Periodic protective circuit for overcurrent	2 s; T_{ON} 40 ms $f = 0.5$ Hz LCD display: Err3 switching output K1, Err4 switching output K2
Scaling range Analog output Behavior when leaving the scaling area (underrange) Behavior when leaving the scaling area (overrange)	Scaling can be freely selected within the measuring range Analog output 0 to 20 mA, linear drop up to 0 mA Analog output 4 to 20 mA, linear drop up to 3.8 mA Analog output 0 to 10 V, linear drop up to 0 V Analog output 0 to 20 mA, linear rise up to 20.5 mA Analog output 4 to 20 mA, linear rise up to 20.5 mA Analog output 0 to 10 V, linear rise up to 10.2 V
Switching output Switching point Release point Switching delay	Measuring range (> release point) Measuring range (< switching point) 0.00 to 99.99 s
Burden 4 to 20 mA 0 to 20 mA 0 to 10 V	$R_I \geq (U_B - 6.5 \text{ V}) \div 0.022 \text{ A}$ $R_I \geq (U_B - 6.5 \text{ V}) \div 0.022 \text{ A}$ $R \geq 10 \text{ k}\Omega$

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



Environmental influences

Admissible temperatures	
Ambient temperature, display case	-25 to +75 °C
Ambient temperature	-50 °C; restricted function only stationary use, risk of cable break, LCD display without function
Storage temperature	-40 to +85 °C
Admissible humidity	
During operation	100 % including condensation on the device outer case
In storage	90 % without condensation
Admissible mechanical load	Referring to basic type 902940/10, 902940/30 and 902940/40 with insertion length 100 mm
Vibration resistance	10 g, 10 to 2000 Hz according to IEC 60068-2-6
Shock resistance	50 g for 11 ms / 100 g for 1 ms according to IEC 60068-2-27
Electromagnetic compatibility	(Only with 4-pole connecting cable and grounded housing)
Interference emission	Class A according to EN 61326
Interference immunity	Performance characteristic A according to EN 61326
Protection type	IP67 according to DIN EN 60529
Ambient temperature influence	$\leq \pm(15 \text{ ppm/K} \times (\text{measuring range end value} + 200) + 50 \text{ ppm/K} \times \text{configured measuring range}) \times \Delta\vartheta$ $\Delta\vartheta$ = deviation of the ambient temperature from the reference temperature
Calibration/reference conditions	DC 24 V at 25 °C \pm 5 °C (77 °F \pm 9 °F)

Accuracy of entire device

Measured value	Tolerance
100 °C	0.60 K
150 °C	0.75 K
200 °C	1.00 K
450 °C	1.60 K

Auxiliary energy

Voltage supply	DC 12 to 30 V (nominal voltage supply DC 24 V) Residual ripple: ensure that the voltage peaks do not exceed or fall below the specified values for the voltage supply
For output 0(4) to 20 mA	DC 12 to 30 V
For output 0 to 10 V	DC 14 to 30 V
Reverse voltage protection	Yes
Power consumption	\leq 45 mA without load, \leq 545 mA with load 2× PNP switching output
Electrical connection	Machine connector M12 × 1, 4-pole according to IEC 60947-5-2, A-coded
Electrical circuit	SELV
Influence of the voltage supply	$\leq \pm 0.01$ % per V deviation from DC 24 V ^a

^a %-specifications refer to the measuring range end value of 20 mA/10 V.

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



Connection diagram

The connection diagram in the data sheet provides preliminary information about the connection options. For the electrical connection, only use the installation instructions or the operating manual. The knowledge and the correct technical compliance with the safety information and warnings contained in these documents are mandatory for mounting, electrical connection, and startup as well as for safety during operation.

Order code 470		Order code 471		Order codes 475, 476, and 477	
1× PNP switching output		2× PNP switching output		1× PNP switching output and 1× analog output	
Voltage supply		Voltage supply		Voltage supply	
1 L+	DC 12 to 30 V	1 L+	DC 12 to 30 V	1 L+	DC 12(14) to 30 V
3 L-	GND	3 L-	GND	3 L-	GND
Output		Output		Output	
4 K1	Highside open collector max. 0.25 A	2 K2	Highside open collector max. 0.25 A	2 analog	0(4) to 20 mA/0 to 10 V
2	nc	4 K1		4 K1	Highside open collector max. 0.25 A
5	Interface	5	Interface	5	Interface

The connection is located on the rear of the temperature switch!

Color coding: connecting cable round plug M12 × 1	1 BN	Brown
	2 WH	White
	3 BU	Blue
	4 BK	Black
	5 GY	Grey

The color coding is **only** for A-coded standard cables!

Connection diagram (sensor)

Machine connector M12 × 1, 4-pole according to IEC 60947-5-2	Electrical connection	Terminal assignment
	Basic type 902940/50 RTD temperature probe in four-wire circuit (input)	

Top view of the machine connector at the corresponding RTD temperature probe!

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

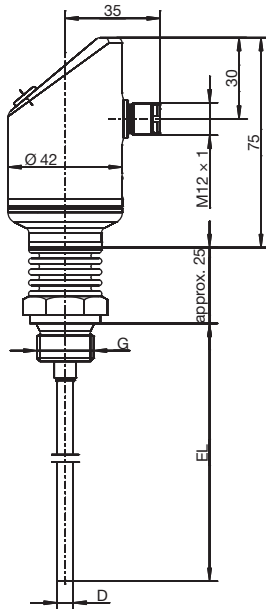
JUMO Instrument Co. Ltd.
 JUMO House
 Temple Bank, Riverway
 Harlow, Essex, CM20 2DY, UK
 Phone: +44 1279 63 55 33
 Fax: +44 1279 62 50 29
 Email: sales@jumo.co.uk
 Internet: www.jumo.co.uk

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

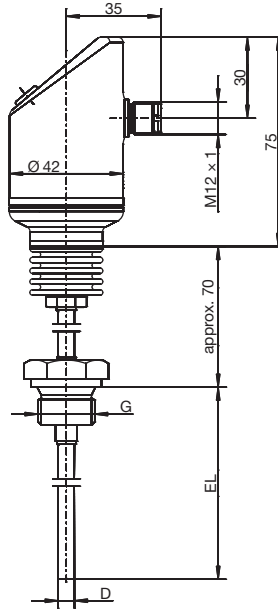


Dimensions

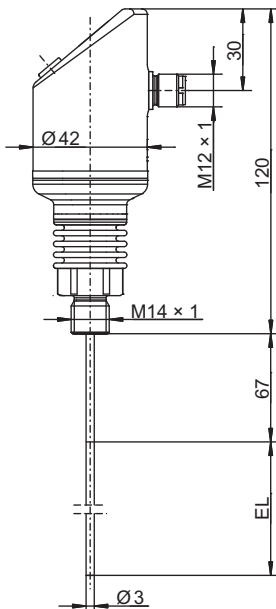
Basic types



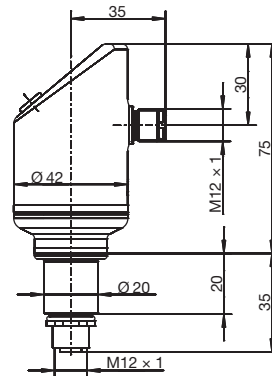
Basic type 902940/10



Basic type 902940/30
with extension tube



Basic type 902940/40
with adaption system for thermowell
902812/10



Basic type 902940/50
with M12 x 1 plug connection
for RTD temperature probes

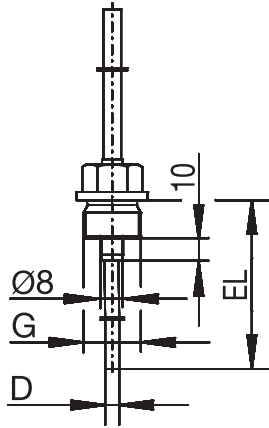
JUMO GmbH & Co. KG
 Delivery address: Mackenrodtstraße 14
 36039 Fulda, Germany
 Postal address: 36035 Fulda, Germany
 Phone: +49 661 6003-0
 Fax: +49 661 6003-607
 Email: mail@jumo.net
 Internet: www.jumo.net

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

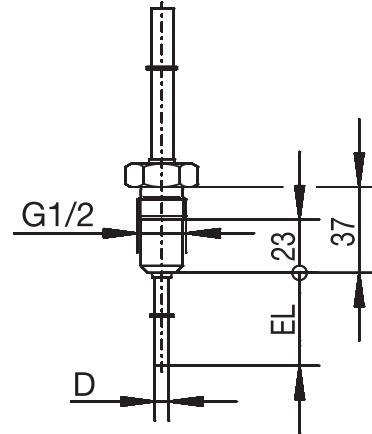


Process connections PA



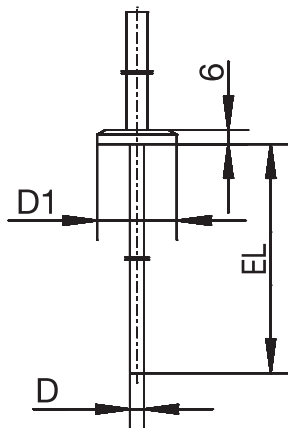
PA	G
103	3/8
104	1/2

Screw connection



PA	
380	

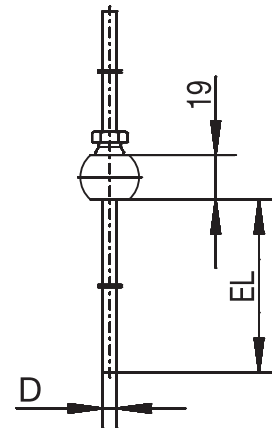
Screw connection with CIP-compliant conical seal



PA	DN	D1
-	-	Ø 25
611	10/20	Ø 34
613	25/1"	Ø 50.5

PA	DN	D1
613	40/1.5"	Ø 50.5
616	50/2"	Ø 64
617	2.5"	Ø 77.5

Clamping socket according to DIN 32676 (clamp)



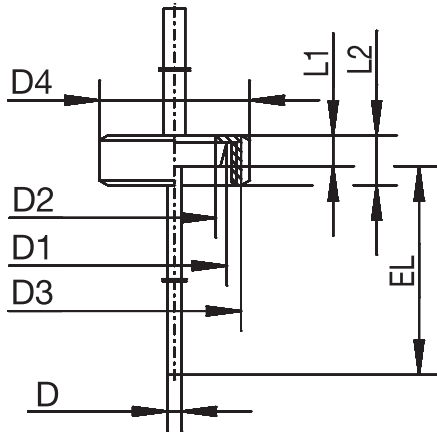
PA	
681	

Ball welding socket with threaded fitting

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

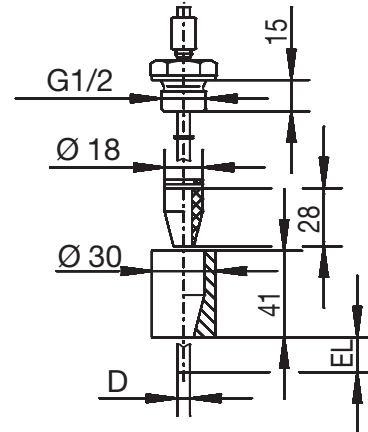
JUMO Instrument Co. Ltd.
 JUMO House
 Temple Bank, Riverway
 Harlow, Essex, CM20 2DY, UK
 Phone: +44 1279 63 55 33
 Fax: +44 1279 62 50 29
 Email: sales@jumo.co.uk
 Internet: www.jumo.co.uk

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



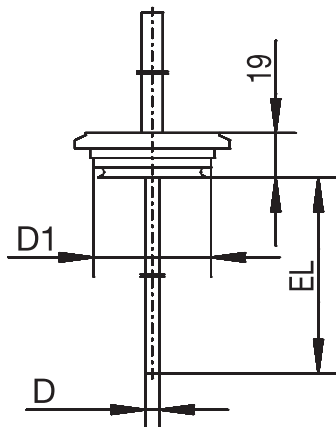
PA	DN	D1	D2	D3	D4	L1	L2
601	10	Ø 22	Ø 18	RD 28 × 1/8	Ø 38	9	18
604	25	Ø 44	Ø 35	RD 52 × 1/6	Ø 63	13	21
605	32	Ø 50	Ø 41	RD 58 × 1/6	Ø 70	13	21

Clamping socket with union nut acc. to DIN 11851 (dairy pipe fitting)



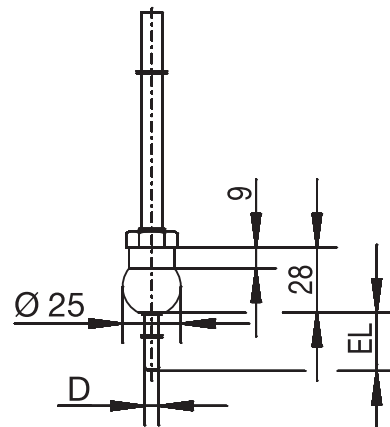
PA	
682	

Welding socket with CIP-compliant conical seal



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

VARIVENT® connection



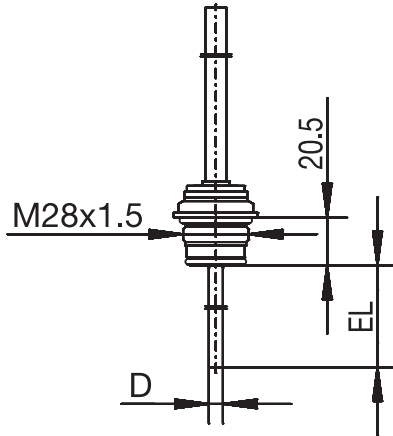
PA	
840	

Ball welding sleeve

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



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	-

JUMO PEKA PA 997

Process connection adapter, 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 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

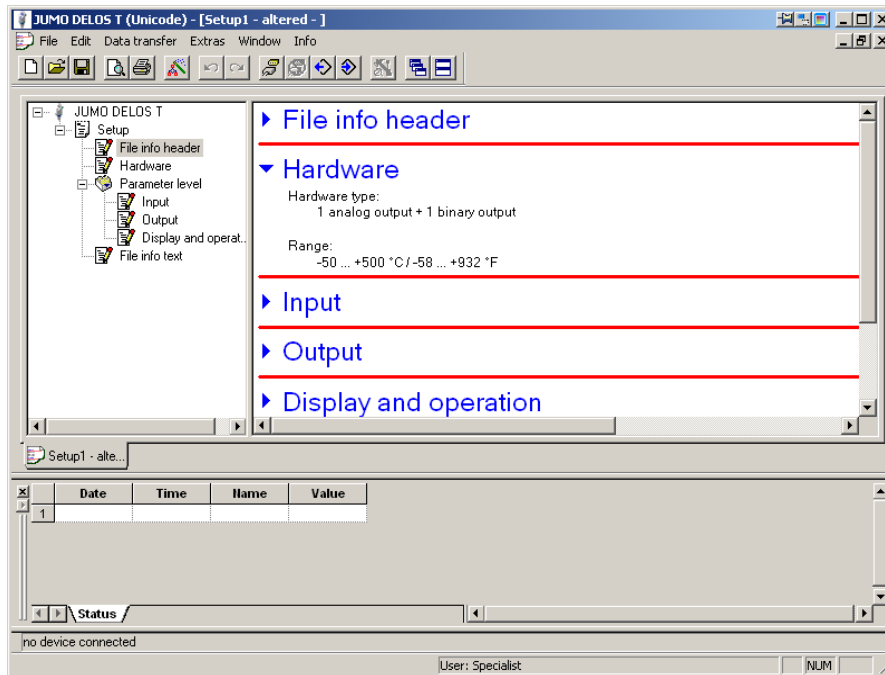


Setup program

The setup program (accessories) is used to configure the temperature switch with a PC. The configuration data can be archived and printed on the PC.

The setup program can be used to overwrite changed parameters with the factory setting at any time.

The connection between temperature switch and PC is established using a PC interface (USB/TTL converter) with adapter (USB connecting cable) and transmitter cable (Y cable).





Order details

				(1) Basic type^a		
				902940/10	DELOS T – Electronic temperature switch with display and analog output Parts coming into contact with the medium are electrolytically polished, surface roughness $\leq 0.8 \mu\text{m}$	
				902940/30	DELOS T – Electronic temperature switch with display and analog output with extension tube for higher medium temperatures Parts coming into contact with the medium are electrolytically polished, surface roughness $\leq 0.8 \mu\text{m}$	
				902940/40	DELOS T – Electronic temperature switch with display, analog output and adaption system for thermowell 902812/10 ^b (please select associated thermowells in data sheet 902812)	
				902940/50	DELOS T – Electronic temperature switch with display and analog output and M12 x 1 plug connection for RTD temperature probes	
					(2) Version	
x	x	x	x	8	Standard with default settings	
x	x	x	x	9	Customer-specific configuration (specification in plain text)	
				(3) Operating temperature in °C		
x				370	-50 to +150 °C	
	x	x		386	-50 to +260 °C	
			x	408	-50 to +500 °C	
				(4) Measuring insert		
x	x	x	x	1013	1 x Pt1000 in four-wire circuit	
				(5) Tolerance class according to DIN EN 60751		
			x	0	Without (not relevant)	
x	x	x		2	Class A (standard)	
x	x	x		3	Class AA	
				(6) Output		
x	x	x	x	470	1x PNP switching output	
x	x	x	x	471	2x PNP switching output	
x	x	x	x	475	1x PNP switching output and 1x analog output, 4 to 20 mA, user configurable	
x	x	x	x	476	1x PNP switching output and 1x analog output, 0 to 20 mA, user configurable	
x	x	x	x	477	1x PNP switching output and 1x analog output, 0 to 10 V, user configurable	
				(7) Protection tube diameter D in mm		
			x	0	Without (not relevant)	
			x	3	Ø 3 mm	
x	x			6	Ø 6 mm	
				(8) Insertion length EL in mm (50 to 1000 mm)		
			x	0	Without (not relevant)	
x	x	x		50	50 mm	
x	x	x		100	100 mm	
x	x	x		150	150 mm	
x	x			...	Specification in plain text (50 mm increments)	
				(9) Process connection PA		
x	x		x	000	Without (smooth protection tube made out of stainless steel 316 L)	

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



x	x			102	Screw connection G 1/4 (stainless steel 316 Ti)
x	x			103	Screw connection G 3/8 (stainless steel 316 Ti)
x	x			104	Screw connection G 1/2 (stainless steel 316 Ti)
x	x			118	Screw connection M12 × 1.5 (stainless steel 316 Ti)
		x		120	Screw connection M14 × 1 for adapting hygienic thermowells (stainless steel 316 L)
x	x			126	Screw connection M18 × 1.5 (stainless steel 316 Ti)
x	x			128	Screw connection M20 × 1.5 (stainless steel 316 Ti)
x	x			144	Screw connection 1/2-14NPT (stainless steel 316 Ti)
x	x			163	Union nut G 3/8 (stainless steel 316 Ti)
x	x			380	Screw connection G 1/2 with CIP-compliant conical seal (stainless steel 316 L)
x	x			601	Taper socket with union nut DN 10 DIN 11851 (dairy pipe fitting) (stainless steel 316 L)
x	x			604	Taper socket with union nut DN 25 DIN 11851 (dairy pipe fitting) (stainless steel 316 L)
x	x			605	Taper socket with union nut DN 32 DIN 11851 (dairy pipe fitting) (stainless steel 316 L)
		x		611	Clamping socket (clamp) DN 10/20 DIN 32676 (stainless steel 316 L)
x	x			613	Clamping socket (clamp) DN 25/40 (1"/1.5") DIN 32676 (stainless steel 316 L)
x	x			616	Clamping socket (clamp) DN 50 (2") DIN 32676 (stainless steel 316 L)
x	x			617	Clamping socket (clamp) 2.5" similar to DIN 32676 (stainless steel 316 L)
x	x			681	Ball welding socket with threaded fitting (stainless steel 316 L)
x	x			682	Welding socket with CIP-compliant conical seal (stainless steel 316 L)
x	x			684	VARIVENT® connection DN 15/10 (stainless steel 316 L)
x	x			685	VARIVENT® connection DN 32/25 (stainless steel 316 L)
x	x			686	VARIVENT® connection DN 50/40 (stainless steel 316 L)
x	x			840	Ball welding sleeve (stainless steel 316 Ti)
x	x			997	JUMO PEKA hygienic process connection (stainless steel 316 L) (compatible process connection adapter, see data sheet 409711)
(10) Extra codes					
x	x	x	x	000	None
x	x			310	Protection tube Ø 6 mm stepped down to Ø 3.8 mm (insertion length EL max. 800 mm)
x	x			810	Welding socket (only for process connection 380)

^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 The insertion length EL in mm must be identical for basic type 902940/40 with the selected hygienic thermowell 902812/10, data sheet 902812.

Order code (1) (2) (3) (4) (5) (6) (7) (8) (9) (10)
902940/10 - 8 - 370 - 1013 - 2 - 475 - 6 - 50 - 104 / 000 , ...^a

^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 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



Scope of delivery

1 device in the ordered version
1 combination tool (required for operation on the device and after installation to turn the display case $\pm 160^\circ$ to the left or right)
1 operating manual

Accessories for process connection

Designation	Part no.
Compression fitting G 1/4 (stainless steel 316 Ti) for protection tube diameter 6 mm (only available for basic type 902940/10 and 902940/30)	00080811
Compression fitting G 1/2 (stainless steel 316 Ti) for protection tube diameter 6 mm (only available for basic type 902940/10 and 902940/30)	00305445

Accessories

Designation	Part no.
Setup program on CD-ROM, multilingual ^a	00550018
Transmitter cable (Y cable) ^a	00507861
PC interface with USB/TTL converter and adapter (USB connecting cable) ^a	00456352
Combination tool (required for operation on the device and after installation to turn the display case $\pm 160^\circ$ to the left or right)	00526614
Cable box, 4-pole (straight) M12 \times 1 with PVC connecting cable length 2000 mm (can be used for assembly)	00404585
Cable box, 4-pole (angled) M12 \times 1 with PVC connecting cable length 2000 mm (can be used for assembly)	00409334
Machine connector M12 \times 1, 4 pole according to IEC 60947-5-2 (only available for basic type 902940/50)	00404727
Holder for wall mounting for temperature switch with M12 \times 1 plug connection (only available for basic type 902940/50)	00555129
Push-in RTD temperature probe with Pt1000 temperature sensor and machine connector M12 \times 1	
902150/99-386-1013-2-6-100-56-2500/315 Protection tube diameter 6 mm, insertion length 100 mm, connecting cable length 2500 mm (only available for basic type 902940/50)	00551310
902150/99-386-1013-2-6-200-56-2500/315 Protection tube diameter 6 mm, insertion length 200 mm, connecting cable length 2500 mm (only available for basic type 902940/50)	00551311

Note: for compression fittings and flanges refer to data sheet 909750

^a The configuration with the setup program can only take place in conjunction with these accessory parts.

Stock versions

Order code	Part no.
902940/10-8-370-1013-2-475-6-50-104/000	00552544
902940/10-8-370-1013-2-475-6-100-104/000	00550991
902940/10-8-370-1013-2-475-6-150-104/000	00552545
902940/10-8-370-1013-2-475-6-200-104/000	00552547
902940/10-8-370-1013-2-475-6-150-000/000	00551003
902940/50-8-408-1013-0-475-0-000-000/000	00551004