

Delivery address: Mackenrodtstraße 14,  
36039 Fulda, Germany  
Postal address: 36035 Fulda, Germany  
Phone: +49 661 60 03-0  
Fax: +49 661 60 03-6 07  
E-mail: mail@jumo.net  
Internet: www.jumo.de

JUMO House  
Temple Bank, Riverway  
Harlow, Essex CM20 2TT, UK  
Phone: +44 12 79 63 55 33  
Fax: +44 12 79 63 52 62  
E-mail: sales@jumo.co.uk

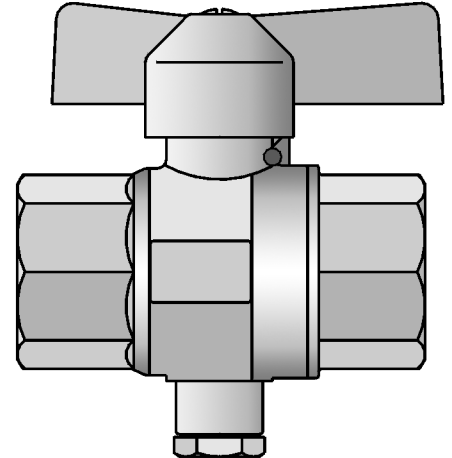
885 Fox Chase, Suite 103  
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## Installation locations for temperature probes

- ball valves
- tees
- pockets
- adapter screw fittings
- mounting accessories

When measuring temperatures in pipelines, it is absolutely essential to choose the correct installation location, to enable acquisition of the temperature prevailing on site. Wrong installation often means losing the high accuracy of the temperature probe, which is then interpreted as poor probe quality. The correct installation location is, therefore, the first step towards a correct temperature measurement.



## Technical data

### Pocket

Pockets are employed when direct mounting of the temperature probe is not intended, or technically impermissible or impossible. Short pockets are screwed into tees, longer forms into special welding nipples, or welded directly to the pipe wall. With nominal values up to DN 50, the protection tube should be immersed into the pipe cross-section by more than half, with larger diameters sufficiently deep (at least 50mm), to eliminate heat transfer errors.

### Ball valve

Ball valves are a combination of a shut-off device with an integral location for a direct-measuring temperature probe. They meet the requirements of integrated environmental protection for avoiding or reducing damage at the point of origin. The pipe systems need not be drained when the temperature probe has to be fitted or replaced. The location for the type 902425/2x temperature probe in the ball valve provides the best temperature measurement available today in pipelines with small nominal sizes.

### Tee

Tees are ideally suited as mounting locations for pockets, especially when the optimum immersion depth has been ensured by design. When using the intended temperature probe, a location with the maximum immersion depth is available for the corresponding pipe cross-section. A minimum heat conduction error can only be achieved in this way.

### Adapter screw fitting

Adapter screw fittings are used to adapt process connection threads to the threads of the pockets or temperature probes. The correct choice eliminates stacking, which has the effect of moving the measurement-active part of the temperature probe away from the center of the pipe.

### Mounting accessories

Mounting accessories, such as welding nipples, round off the range available for adapting the installation location to the temperature probe or the pocket.

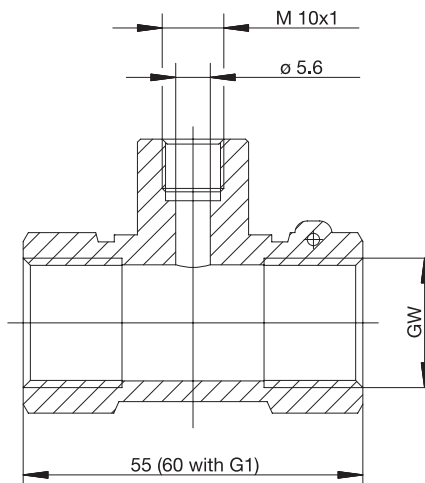
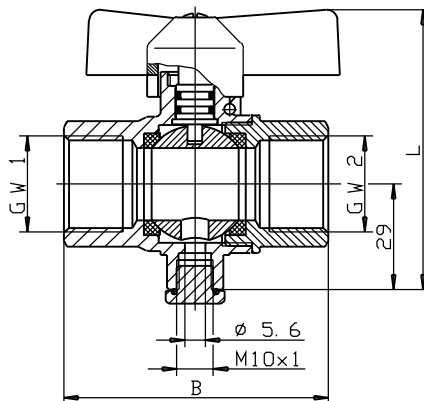
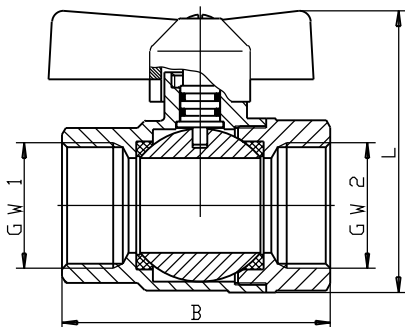
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Dimensions



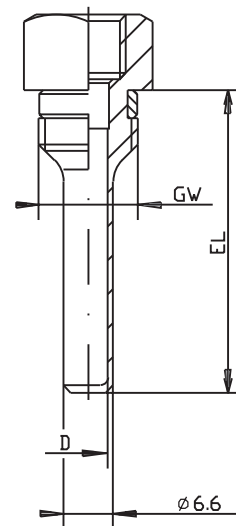
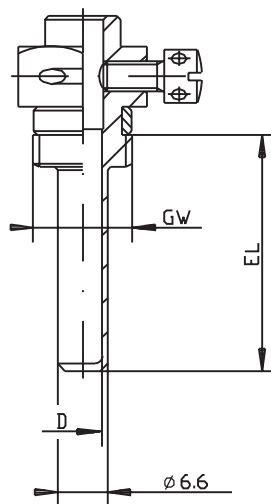
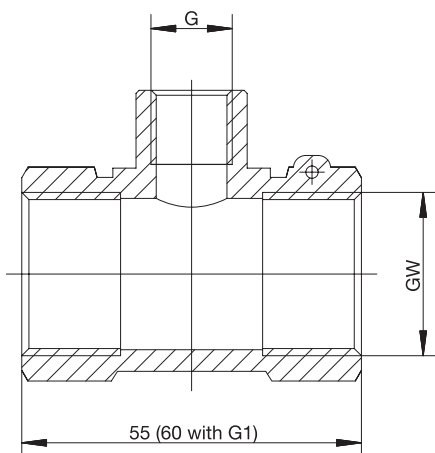
	G1/2	G3/4	G1
L	67	67	74
B	64	64	71

	G1/2	G3/4	G1
L	77	77	84
B	64	73	85, 5

Type 902440/10

Type 902440/11

Type 902440/30



Type 902440/31

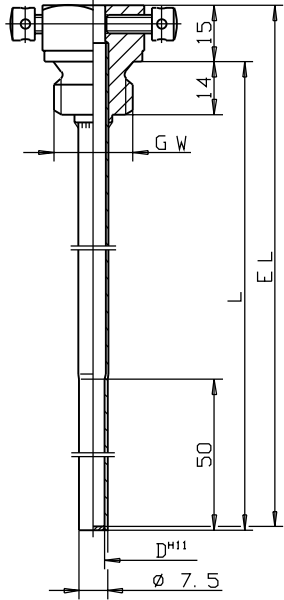
Type 902440/40

Type 902440/41

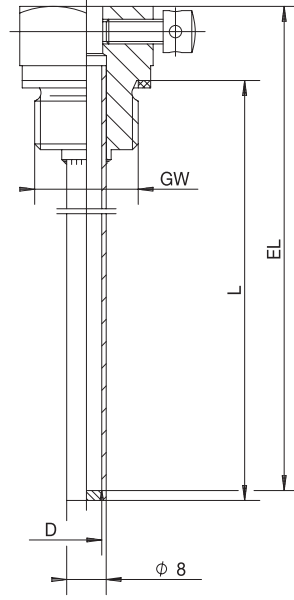
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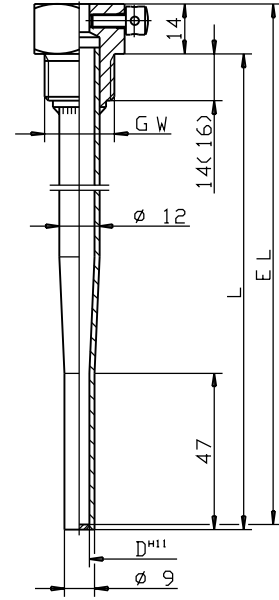
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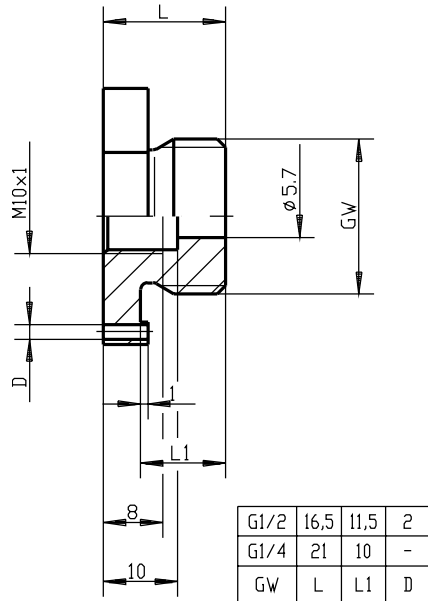
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2	120	133
1	85	98
Pos.	L	EL



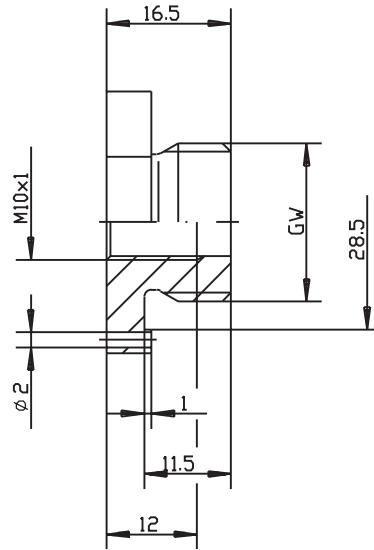
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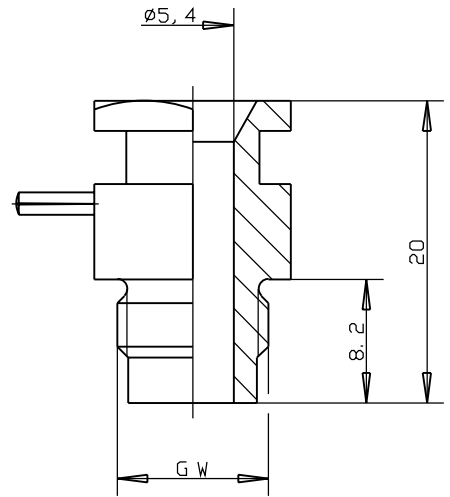
Type 902440/44



Type 902440/50



Type 902440/51

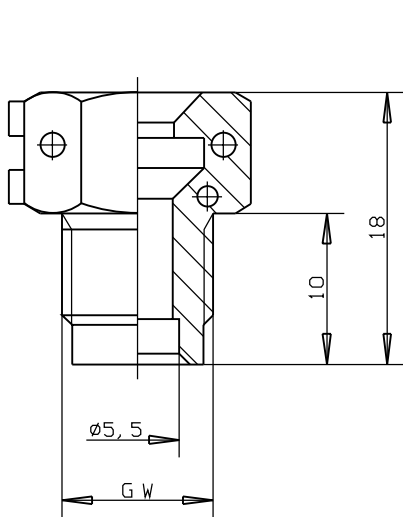


Type 902440/60

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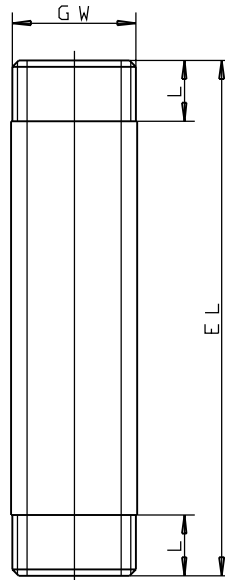
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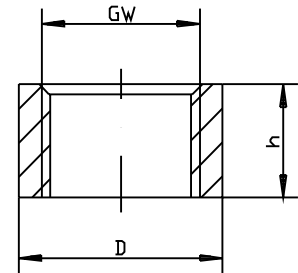


	L
G3/4	13
G1	16
G1 1/4	18
G2	20

Type 902440/61



Type 902440/65



G1/4	18.5	25
G1/2	27	15
GW	D	h

Type 902440/67

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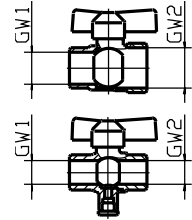
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**Order details: Installation locations for temperature probes**

**(1) Basic version**

		902440/10	Ball valve with 2 process connections, no measurement nipple, nickel-plated brass, T <sub>max.</sub> = 150°C, PN = 16bar
		902440/11	Ball valve with 2 process connections, measurement nipple M10 x 1 to EN 14 34, for fitting type DS temperature probes, nickel-plated brass, T <sub>max.</sub> = 150°C, PN = 16bar
<b>(2) Process connection GW 1</b>			
x	x	104	female thread G 1/2 (1/2" pipe)
x	x	105	female thread G 3/4 (3/4" pipe)
x	x	106	female thread G 1 (1" pipe)
<b>(3) Process connection GW 2</b>			
	x	104	female thread G 1/2 (1/2" pipe)
	x	105	female thread G 3/4 (3/4" pipe)
x	x	106	female thread G 1 (1" pipe)
	x	165	union nut 3/4" pipe
	x	166	union nut G 1 (1" pipe) (cannot be combined with G 1/2)
	x	167	union nut G 1 1/4 (1 1/4" pipe) (cannot be combined with G 1/2 and G 3/4)

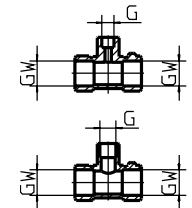


Order code  (1) -  (2) -  (3)  
 Order example 902440/11 - 105 - 105

**Order details: Installation locations for temperature probes**

**(1) Basic version**

		902440/30	Tee with identical female thread at both ends, measurement nipple M10 x 1 to EN 14 34, for fitting type DS temperature probes, brass
		902440/31	Tee with identical female thread at both ends, measurement nipple with thread throughout, brass
<b>(2) Process connection GW</b>			
x	x	104	female thread G 1/2 (1/2" pipe)
x	x	105	female thread G 3/4 (3/4" pipe)
x	x	106	female thread G 1 (1" pipe)
<b>(3) Measurement nipple G</b>			
	x	102	G 1/4 (1/4" pipe)
	x	104	G 1/2 (1/2" pipe)
x	x	114	M 10 x 1



Order code  (1) -  (2) -  (3)  
 Order example 902440/30 - 105 - 114

Delivery address: Mackenrodtstraße 14,  
36039 Fulda, Germany  
Postal address: 36035 Fulda, Germany  
Phone: +49 661 60 03-0  
Fax: +49 661 60 03-6 07  
E-mail: mail@jumo.net  
Internet: www.jumo.de

JUMO House  
Temple Bank, Riverway  
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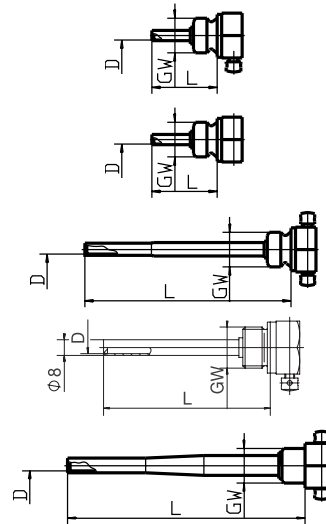
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**Order details: Installation locations for temperature probes**

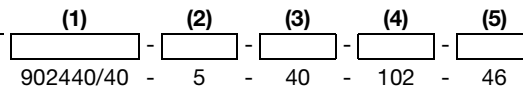
**(1) Basic version**

	902440/40	Screw-in pocket with screw for lead sealing, straight protection tube, approved up to 90°C, PN = 16bar
	902440/41	Screw-in pocket with M 10 x 1 thread, straight protection tube, approved up to 130°C, PN = 16bar
	902440/42	Screw-in pocket to EN 14 34 with screw for lead sealing, external dia. 8mm stepped down to 7.5mm, internal dia. 6mm, fitting tolerance H10, approved up to 200°C, PN = 16bar
	902440/43	Screw-in pocket with screw for lead sealing, external dia. 8mm, internal dia. 6.2mm max., approved up to 200°C, PN = 16bar
	902440/44	Screw-in pocket with screw for lead sealing, external dia. 12mm stepped down to 9mm, internal dia. 6mm, fitting tolerance H12, PN = 25bar
	<b>(2) Internal diameter of protection tube in mm</b>	
x	5	5mm
x	5.2	5.2mm
x	x	6
	<b>(3) Fitting length EL in mm (85 ≤ EL ≤ 400 for Types 902440/42, 902440/43)</b>	
x	35	35mm
x	x	40
x		50
	x	85
	x	120
	x	155
	x	210
	<b>(4) Process connection GW</b>	
x	102	male thread G 1/4 (1/4" pipe)
x	103	male thread G 3/8 (3/8" pipe)
x	x	104
	x	105
	<b>(5) Material</b>	
	20	stainless steel
x	46	brass



Order code

Order example



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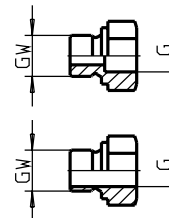
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**Order details: Installation locations for temperature probes**

**(1) Basic version**

	902440/50	Adapter screw fitting, measurement nipple M10 x 1 to EN 14 34, for fitting type DS temperature probes
	902440/51	Adapter screw fitting, measurement nipple thread throughout
	<b>(2) Process connection GW</b>	
x	102	male thread G 1/4 (1/4" pipe)
x x	104	male thread G 1/2 (1/2" pipe)
	<b>(3) Measurement nipple G</b>	
x x	114	M 10 x 1
	<b>(4) Material</b>	
x	20	stainless steel
x x	46	brass



**Order code**                    **(1)**        **(2)**        **(3)**        **(4)**  
**Order example**            902440/50 - 102 - 114 - 46

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Postal address: 36035 Fulda, Germany  
Phone: +49 661 60 03-0  
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Temple Bank, Riverway  
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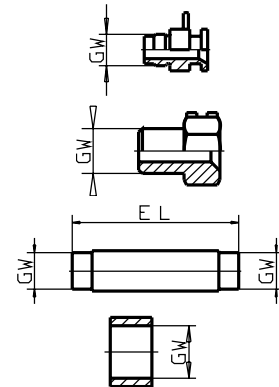
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**Order details: Installation locations for temperature probes**

**(1) Basic version**

902440/60	Adapter screw fitting set, for temperature probe conversion to direct installation in EN 14 34 location
902440/61	Screw-fitting, folding, for fitting the temperature probe in type 902440/41 pocket
902440/65	Twin nipple (meter substitution unit)
902440/67	Welding nipple
<b>(2) Fitting length EL in mm</b>	
000	no fitting length
105	105mm (with 1" pipe)
110	110mm (with 3/4" pipe)
130	130mm (with 1" pipe)
135	135mm (with 1 1/4" pipe)
150	150mm (with 2" pipe)
190	190mm (with 1" pipe)
260	260mm (with 1 1/4" pipe)
300	300mm (with 2" pipe)
<b>(3) Process connection GW</b>	
102	G 1/4 (1/4" pipe)
104	G 1/2 (1/2" pipe)
105	G 3/4 (3/4" pipe)
106	G 1 (1" pipe)
107	G 1 1/4 (1 1/4" pipe)
110	G 2 (2" pipe)
114	M 10 x 1
<b>(4) Material</b>	
01	steel
46	brass
85	plastic



Order code  -  -  -   
 Order example 902440/60 - 000 - 114 - 46

**Stock versions:**

(1)	(2)	(3)	Sales No.
902440/10	104	106	90/00364318
902440/10	105	106	90/00364323
902440/10	106	106	90/00364331
902440/11	104	104	90/00349813
902440/11	105	105	90/00349814
902440/11	106	106	90/00349816
902440/31	104	102	90/00329064
902440/31	105	102	90/00329067
902440/31	106	102	90/00329068



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902440/40	5.2	50	103	46	90/00330497
902440/40	5.2	50	104	46	90/00326403
902440/41	5.2	40	102	46	90/00362827
902440/42	6	85	104	20	90/00081683
902440/42	6	120	104	20	90/00081684
902440/43	6	85	104	20	90/00349100
902440/43	6	120	104	20	90/00352465

**Stock versions:**

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**Stock versions:**

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902440/60	000	114	46	90/00355259
902440/61	000	114	85	90/00362826