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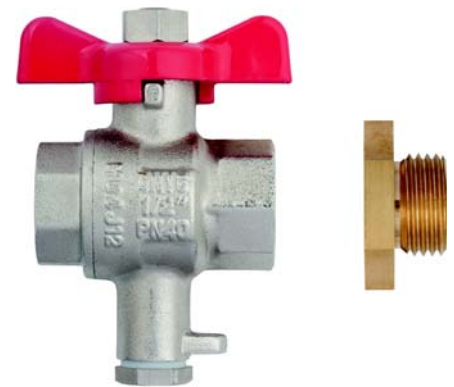
JUMO Process Control, Inc.
 6733 Myers Road
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Installation Locations and Accessories for Temperature Probes

- Ball valves
- T-pieces
- Adapter screw fittings
- Installation accessories

The correct selection of installation locations for acquiring the representative local temperature is a necessary precursor to temperature measurement in pipelines. The high degree of accuracy of temperature probes is frequently lost as a result of the device being incorrectly installed – this usually leads to the incorrect assessment that the probe is of poor quality. As a result, the correct installation location is the first step for correct temperature measurement.



Technical data

Ball valve	Ball valves essentially serve as an installation location where they function as a shut-off device with an integrated measuring point for a directly connected temperature probe. They fulfill the requirements of integrated environmental protection. That means prevention/reduction of stresses and strains right where they could develop. The pipe systems do not have to be emptied when the temperature probe is installed or exchanged. The measuring point in the ball valve represents the best temperature measurement that is available today in pipelines with a small nominal width. The measuring point corresponds to the regulations of EN 1434-2 and is designed so that the temperature sensor is positioned in the pipeline at an optimum mounting depth.
T-piece	T-pieces are ideal installation locations for thermowells, especially when an optimal coordination of the immersion depth is an inherent feature of the design. When using the intended temperature probe, a measuring point with the maximum immersion depth for the respective pipe cross section is available. This is the only way to attain in which a minimal heat conduction error is attained.
Adapter screw fittings	Adapter screw fittings are used for the adaptation of process connection threads to the thread of thermowells or temperature probes. The right choice prevents the formation of a tower, which would cause the active measuring part of the temperature probe to inch out of the center of the pipe.
Installation accessories	Installation accessories such as welded sockets complete the assortment for the adaptation of the installation location to the temperature probe or the thermowell.

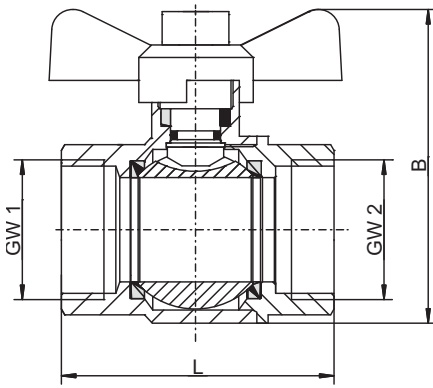
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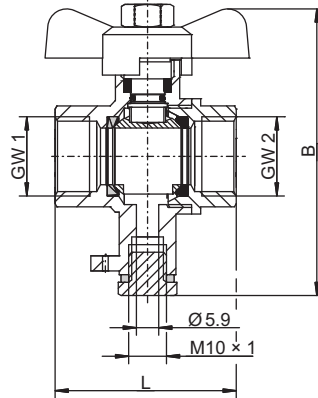
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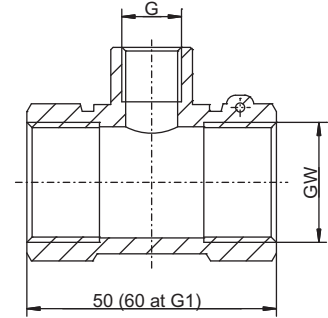
Dimensions



	G 1/2	G 3/4	G 1	G 1 1/4	G 1 1/2
L	50	55	68	100	110
W	49	61	74	94	112



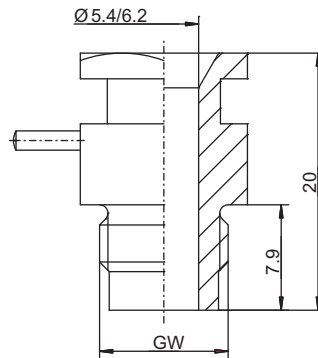
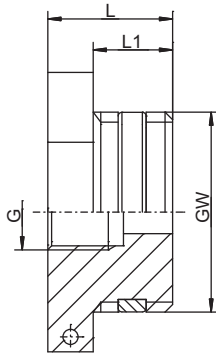
	G 1/2	G 3/4	G 1	G 1 1/4	G 1 1/2	G 2
L	48	54	66	87	98	113
W	77	79	96	117	128	145



Basic type 902442/10

Basic type 902442/11

Basic type 902442/31



GW	L	L1	G
G 1/4	21	10	M10 x 1
G 3/8	16.5	10.5	M10 x 1
G 3/8	29	15	G 1/4
G 1/2	16.5	10.5	M10 x 1
G 1/2	29	15	G 1/4
G 3/4	16.5	10.5	M10 x 1
G 3/4	29	15	G 1/4
M10 x 1	20	8	M10 x 1

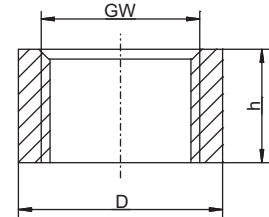
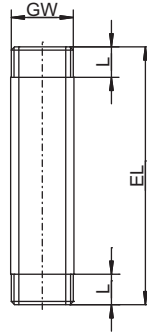
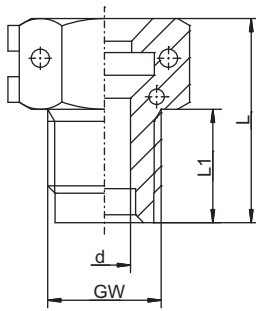
Basic type 902442/50

Basic type 902442/60

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GW	L1	L	d	Rolling
M10 × 1	8.2	18	5.4	1 or 3
M10 × 1	8.2	16.2	4.6	0
M10 × 1	8.2	16.2	5.4	2
G 1/4	10	18	6.3	1

GW	L
G 3/4	13
G 1	16
G 1 1/4	18
G 2	20

GW	D	h
G 1/4	18.5	25
G 1/2	27	22

Basic type 902442/61

Basic type 902442/65

Basic type 902442/67

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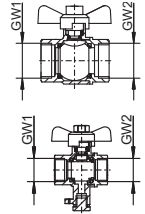
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Order Details

(1) Basic type

	902442/10	Ball valve with 2 process connections, without measuring sockets, nickel-plated brass, T _{max.} = 150 °C, PN = 16 bar
	902442/11	Ball valve with 2 process connections, with measuring sockets, for installing type DS temperature probes, nickel-plated brass, T _{max.} = 150 °C, PN = 16 bar



(2) Process connection GW

x	x	000	Without (not relevant)
			(3) Process connection GW 1
x	x	104	Thread G 1/2
x	x	105	Thread G 3/4
x	x	106	Thread G 1
x	x	107	Thread G 1 1/4
x	x	108	Thread G 1 1/2
		110	Thread G 2

(4) Process connection GW 2

	x	104	Thread G 1/2	
	x	x	105	Thread G 3/4
	x	x	106	Thread G 1
	x	x	107	Thread G 1 1/4
	x	x	108	Thread G 1 1/2
		x	110	Thread G 2

(5) Measuring socket G

x		000	Without (not relevant)	
		x	104	Thread G 1/2
		x	114	Thread M10 × 1 (according to DIN EN 1434)

(6) Insertion length EL in mm

x	x	000	Without (not relevant)
---	---	-----	------------------------

(7) Material

x	x	00	Without (not relevant)
---	---	----	------------------------

Order code	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Order example	902442/11	000	104	104	000	000	00

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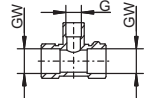
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Order Details

(1) Basic type

	902442/31	T-piece with same internal thread on both sides, with measuring socket, continuous thread, brass
	(2) Process connection GW	
x	104	Thread G 1/2
x	105	Thread G 3/4
x	106	Thread G 1
	(3) Process connection GW 1	
x	000	Without (not relevant)
	(4) Process connection GW 2	
x	000	Without (not relevant)
	(5) Measuring socket G	
x	102	Thread G 1/4
x	114	Thread M10 × 1 (according to DIN EN 1434)
	(6) Insertion length EL in mm	
x	000	Without (not relevant)
	(7) Material	
x	00	Without (not relevant)



Order code	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Order example	902442/31	104	000	000	102	000	00

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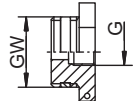
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Order Details

(1) Basic type

902442/50 Adapter screw fitting,
for installing type DS temperature probes



(2) Process connection GW

- x 102 Thread G 1/4 (with measuring socket, thread M10 × 1)
- x 103 Thread G 3/8
- x 104 Thread G 1/2
- x 105 Thread G 3/4
- x 114 Thread M10 × 1 (according to DIN EN 1434)

(3) Process connection GW 1

- x 000 Without (not relevant)

(4) Process connection GW 2

- x 000 Without (not relevant)

(5) Measuring socket G

- x 102 Thread G 1/4
- x 114 Thread M10 × 1 (according to DIN EN 1434)

(6) Insertion length EL in mm

- x 000 Without (not relevant)

(7) Material

- x 20 Stainless steel (with measuring socket, thread G 1/4)
- x 46 Brass

	(1)		(2)		(3)		(4)		(5)		(6)		(7)
Order code		-		-		-		-		-		-	
Order example	902442/50	-	102	-	000	-	000	-	114	-	000	-	46

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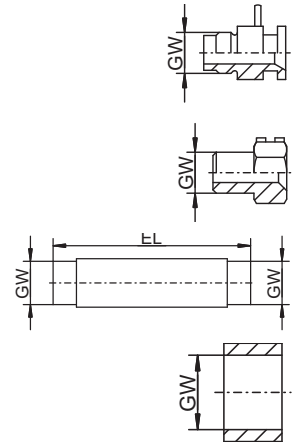
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Order Details

(1) Basic type

902442/60	Screw connection set for probe modification for direct installation in installation locations according to DIN EN 1434, as swivel (brass) or with 2 half-shells (plastic)
902442/61	Screw connection for temperature probe installation in thermowells or direct installation, as swivel (brass) or with 2 half-shells (plastic)
902442/65	Double nipple (spacer)
902442/67	Welded socket



(2) Process connection GW

x	x	102	Thread G 1/4 (with inner diameter of 6.3 mm)
	x	104	Thread G 1/2
	x	105	Thread G 3/4
	x	106	Thread G 1
	x	107	Thread G 1 1/4
	x	110	Thread G 2
x	x	114	Thread M10 × 1 (according to DIN EN 1434) (with inner diameter of 5 to 6.2 mm)

(3) Process connection GW 1

x	x	x	x	000	Without (not relevant)
---	---	---	---	-----	------------------------

(4) Process connection GW 2

x	x	x	x	000	Without (not relevant)
---	---	---	---	-----	------------------------

(5) Measuring socket G

x	x	x	x	000	Without (not relevant)
---	---	---	---	-----	------------------------

(6) Insertion length EL in mm

x	x	x	000	None
	x	105	105 mm (with thread G 1)	
	x	110	110 mm (with thread G 3/4)	
	x	130	130 mm (with thread G 1)	
	x	135	135 mm (with thread G 1 1/4)	
	x	150	150 mm (with thread G 2)	
	x	190	190 mm (with thread G 1)	
	x	260	260 mm (with thread G 1 1/4)	
	x	300	300 mm (with thread G 2)	

(7) Material

	x	x	01	Steel
x	x	46	Brass	
x	x	85	Plastic	

Order code	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Order example	902442/60	- 114	- 000	- 000	- 000	- 000	- 46

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**Stock versions**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	Part no.
902442/10	-	000	-	105	-	105	00540657
902442/10	-	000	-	106	-	106	00540649
902442/11	-	000	-	104	-	104	00539347
902442/11	-	000	-	105	-	105	00539350
902442/11	-	000	-	106	-	106	00539351
902442/31	-	104	-	000	-	000	00329064
902442/31	-	105	-	000	-	000	00329067
902442/31	-	106	-	000	-	000	00329068
902442/50	-	104	-	000	-	000	00062424
902442/50	-	104	-	000	-	000	00564716
902442/60	-	114	-	000	-	000	00355259
902442/61	-	114	-	000	-	000	00378797

Accessories for installation locations

Designation	Part no.
Set for identifying and sealing thermowells (sealing set, diameter gage, and information sheet)	00583467
PTB sealing set, stock thermowells (wire seal and double seal)	00580246
Sealing set	00650727
Extension Socket for Temperature Probe Pairs	00679799