



Screw-in and weld-in pockets

- for thermocouples and resistance thermometers
- thermometers can be replaced without draining the system
- pockets in different materials
- operating pressure up to 450bar
- available with acceptance certificate 3.1 B (machined from solid)

Screw-in and weld-in pockets are used for installing thermocouples and resistance thermometers whenever replacement without draining the system and/or pressure resistance are required.

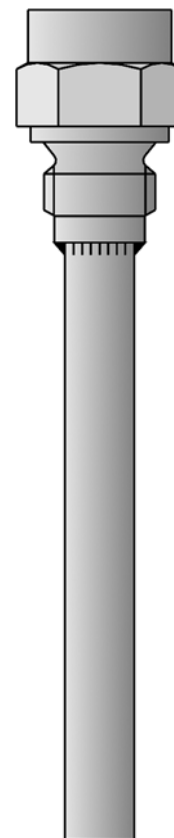
The dimensions specified for **EL** refer to the fitting lengths of the thermometers; the dimension **L** indicates the fitting length of the pocket.

The pressure resistance is dependent on the temperature and is specified for each item. The maximum pressure that can be sealed on the thread depends on the installation conditions and may be lower. The pressure specifications contain no safety margin for additional loading through flow velocity.

Calculations of the permitted pressure under given conditions of flow, temperature and medium can be provided as a service to the user.

Acceptance test certificate:

3.1 B, can be requested when ordering



Technical data

Process connection

for welding in: dia. 24H7, dia. 30H11
for screwing in: G 1/2 (1/2" pipe), G 3/4 (3/4" pipe)

Protection tube

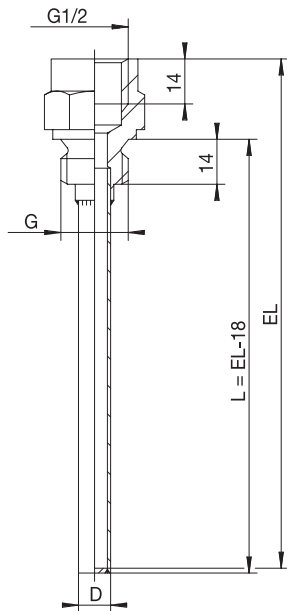
Material:
steel 1.0305
stainless steel 1.4571
steel 1.7335
others on request

Operating temperature range

up to 450°C, take note of loading diagrams!

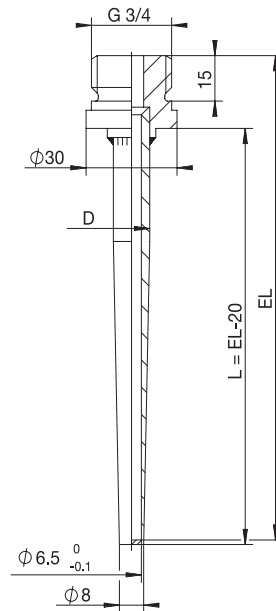


Dimensions

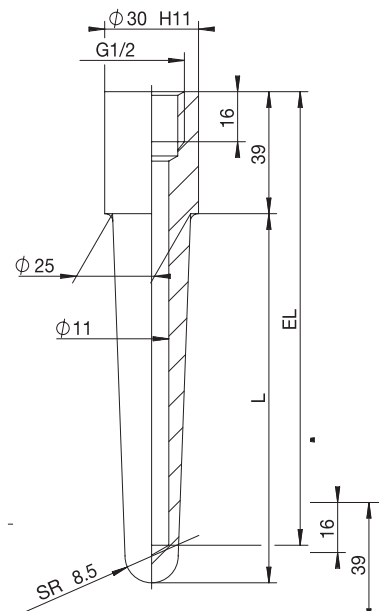


Type 909721/10

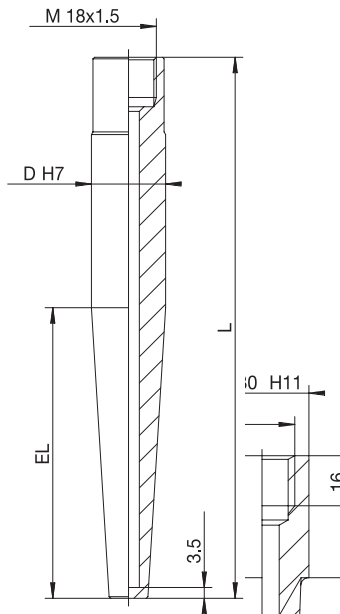
Type 909721/11



Type 909721/15



Type 909721/20



Type 909721/25

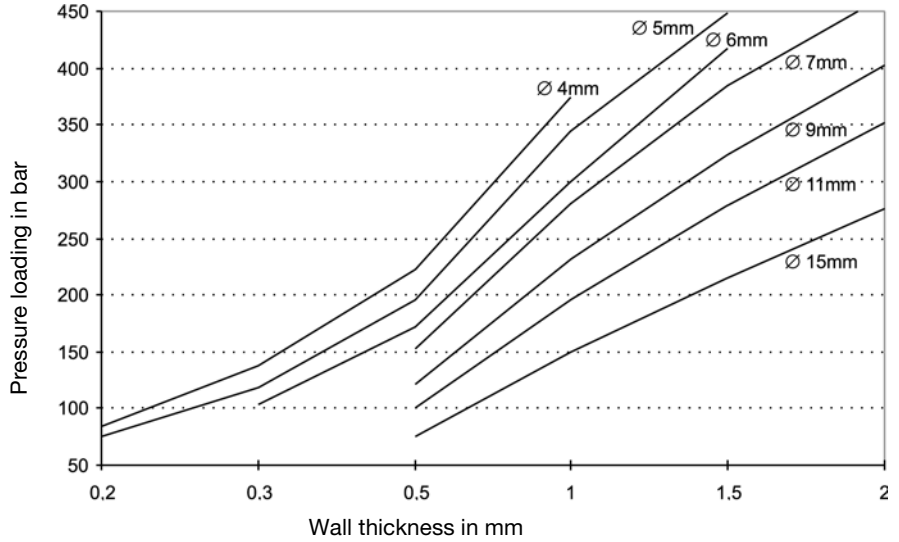
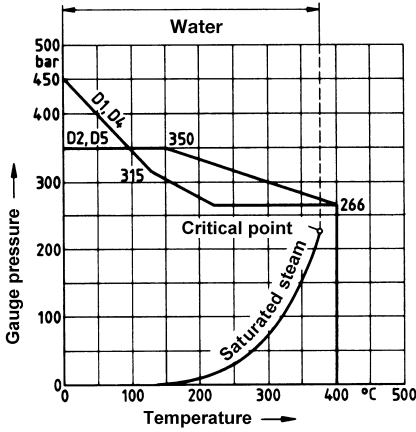
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Loading diagrams



**Loading of protection tubes
Form D to DIN 43 763
Type 909721/25**

**Tube: st. steel X6 CrNiMoTi 17 12 2,
Material Ref. 1.4571**

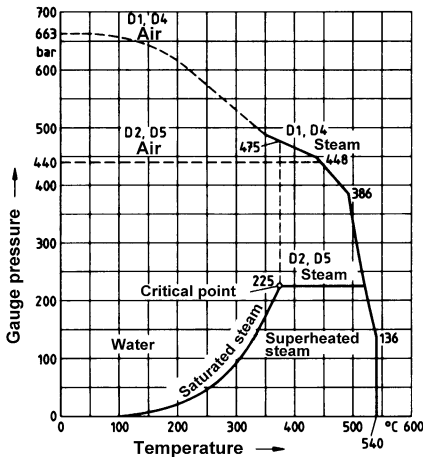
Protection tubes D1 and D4:
Permissible flow velocity for
air, water, superhd. steam: up to 60m/sec

Protection tubes D2 and D5:
Permissible flow velocity
for air: up to 60m/sec
for water, superheated steam: up to 30m/sec

Load limits on protection tubes, for various tube dimensions

The diagram shows the load limits (guide values) for different tube dimensions. The maximum pressure loading of cylindrical protection tubes is shown in relation to the wall thickness with different tube diameters. The data refer to protection tubes in stainless steel 1.4571, fitting length 100mm, flow velocity 10m/sec in air or 4m/sec in water and a temperature range from -20 to +100°C. A safety factor of 1.8 has been taken into account. For higher temperatures, or different materials, the maximum pressure loading has to be reduced by the percentage values given in the table.

Material	Temperature	Reduction
CrNi 1.4571	up to +200 °C	-10%
CrNi 1.4571	up to +300 °C	-20%
CrNi 1.4571	up to +400 °C	-25%
CrNi 1.4571	up to +500 °C	-30%
CuZn 2.0401	up to +100 °C	-15%
CuZn 2.0401	up to +175 °C	-60%



**Loading on protection tubes
Form D to DIN 43 763
Type 909721/25**

**Tube: steel 13 CrMo 44,
Material Ref. 1.7335**

Permissible flow velocity for
air and superheated steam: up to 60m/sec

Loading in water: up to 450 bar and up to
5m/sec

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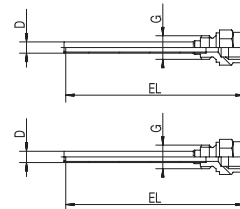
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Order details: Screw-in pockets

(1) Pocket type

	909721/10	Screw-in pocket, cylindrical, with female thread G 1/2 (1/2" pipe) (similar to DIN 16 179 Form D)
	909721/11	Screw-in pocket, cylindrical, with female thread G 1/2 (1/2" pipe) (DIN 16 179 Form D)



x	x	848	(2) Operating temperature in °C (also see loading diagram) 0 to 400°C
x		10	(3) Protection tube diameter D in mm outside diameter 10mm / inside diameter 8mm
	x	13	outside diameter 13mm / inside diameter 11mm
x	x	100	(4) Fitting length EL of thermometer in mm 100mm
x		150	150mm
	x	160	160mm
	x	250	250mm
x	x	104	(5) Process connection screw fitting G 1/2 (1/2" pipe thread)
x	x	26	(6) Protection tube material stainless steel 1.4571 (max. 400°C)
x	x	000	(7) Extra codes no extra code

Order code	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Order example	909721/10	- 848	- 10	- 100	- 104	- 26	/ 000

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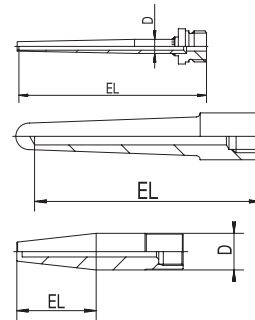
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Order details: Weld-in pockets

(1) Pocket type

	909721/15	Weld-in pocket, tapered, with male thread G 3/4 (3/4" pipe)
	909721/20	Weld-in pocket, tapered, with female thread G 1/2 (1/2" pipe) (DIN 16 179 Form S)
	909721/25	Weld-in pocket, with female thread M 18x1.5 (DIN 43 763 Form D)



(2) Operating temperature in °C (also see loading diagram)

x	x	x
x	x	x

848	0 to 400°C
854	0 to 500°C

(3) Protection tube diameter D in mm

x	
	x
	x

12	outside diameter 12mm stepped down to 8mm / inside diameter 6.5mm
24	outside diameter 24mm stepped down to 12.5mm / inside diameter 7mm
25	outside diameter 25mm stepped down to 17mm / inside diameter 11mm

(4) Fitting length EL of thermometer in mm

	x
	x
x	
	x
	x
x	x
x	
x	
	x

65 (140)	65mm (L = 140mm) ¹ (Form D1)
65 (200)	65mm (L = 200mm) (Form D4)
100	100mm
125 (200)	125mm (L = 200mm) (Form D2)
125 (260)	125mm (L = 260mm) (Form D5)
160	160mm
190	190mm
220	220mm
250	250mm

(5) Process connection

x	x	x
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000 weld-in pocket

(6) Protection tube material

x	
	x
	x

03	steel 1.0305
26	stainless steel 1.4571 (max. 400°C)
36	steel 1.7335 (max. 500°C)

(7) Extra codes

x	x
x	x

000	no extra code
374	acceptance test certificate APZ 3.1 B material

Order code (1) - (2) - (3) - (4) - (5) - (6) / (7)
Order example 909721/15 - 848 - 12 - 100 - 000 - 03 / 374

1. Example: 65mm (L = 140mm). 65mm = EL taper, 140mm = L pocket

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**Stock versions**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	Sales No.
909721/10	848	10	100	104	26	000	90/00057352
909721/10	848	10	150	104	26	000	90/00057353
909721/11	848	13	100	104	26	000	90/00044862
909721/11	848	13	160	104	26	000	90/00044863
909721/11	848	13	250	104	26	000	90/00044864
909721/15	848	12	100	000	03	374	90/00039349
909721/15	848	12	160	000	03	374	90/00032010
909721/15	848	12	190	000	03	374	90/00038739
909721/15	848	12	220	000	03	374	90/00035520
909721/20	848	25	160	000	26	000	90/00045048
909721/20	848	25	250	000	26	000	90/00045049
909721/20	854	25	160	000	36	000	90/00045411
909721/20	854	25	250	000	36	000	90/00045412
909721/25	848	24	65 (140)	000	26	000	90/00348538
909721/25	848	24	125 (200)	000	26	000	90/00340509
909721/25	848	24	65 (200)	000	26	000	90/00340384
909721/25	848	24	125 (260)	000	26	000	90/00348540
909721/25	854	24	65 (140)	000	36	000	90/00348539
909721/25	854	24	125 (200)	000	36	000	90/00317838
909721/25	854	24	65 (200)	000	36	000	90/00102673
909721/25	854	24	125 (260)	000	36	000	90/00340381