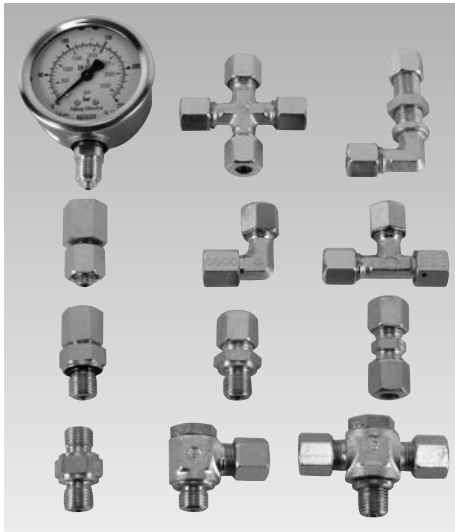




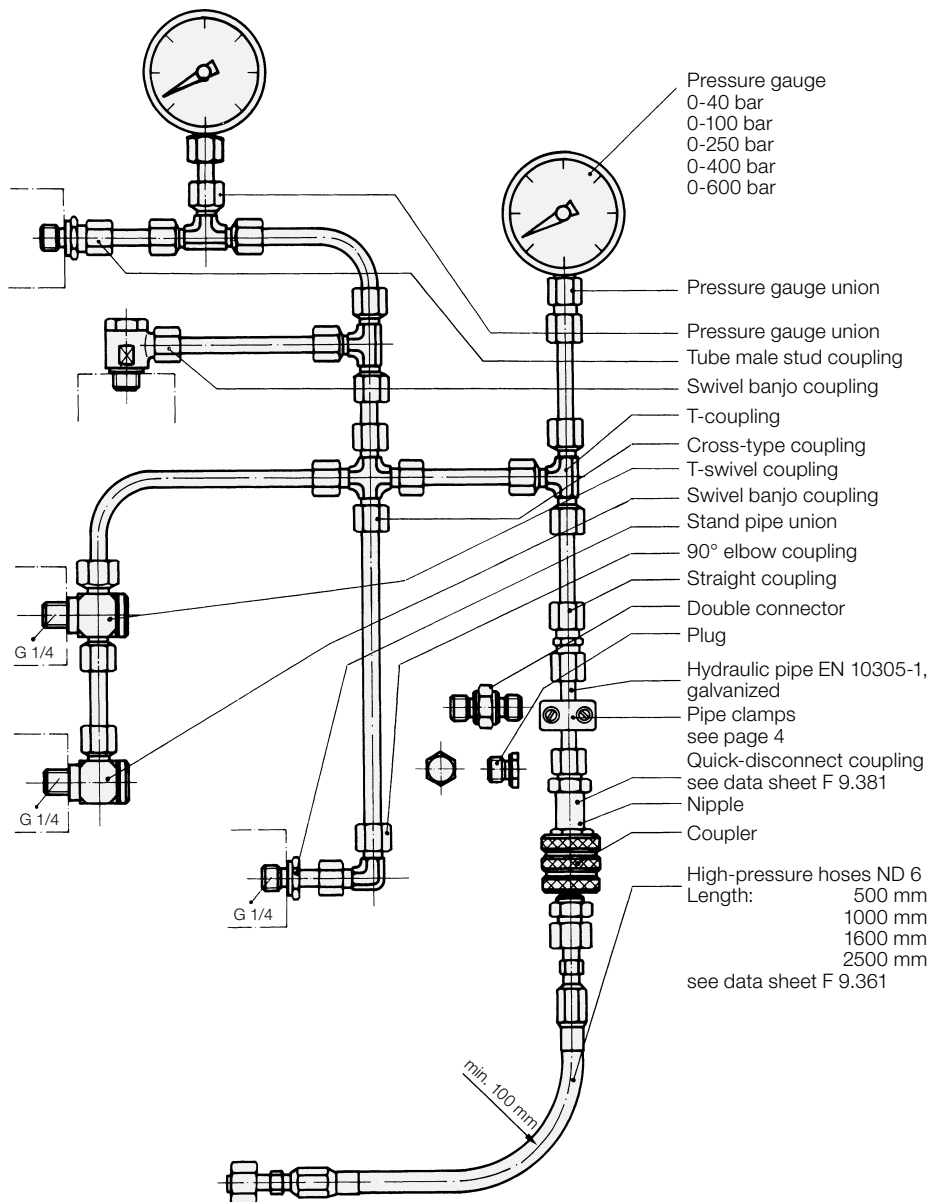
**Fittings with 24° cone as per DIN EN ISO 8434-1**  
Fitting accessories, plug-type connectors,  
hydraulic pipes, pipe clamps, pressure gauges



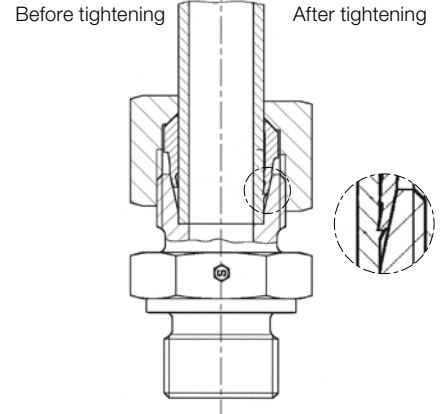
**Advantages**

- Worldwide spread high-pressure fitting system with quadruple safety
- Leak-free connection of piping and components
- Positive and safe connection by defined and limited digging into the hydraulic pipe
- Secure grip even with vibration stress due to the spring effect of the cutting ring
- Retightening of the union nut is not required
- The fitting can be disconnected and connected again as often as required.
- Fitting components free from Cr(VI)

**Application example**

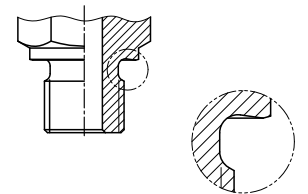


**Tube male stud coupling with cutting ring and union nut**



**Screwed plug with knife edge**

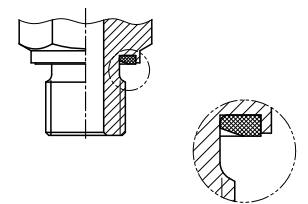
DIN 3852 T2 form B and EN ISO 1179-4



Suitable for high temperatures and aggressive media.

**Screwed plug with elastic sealing**

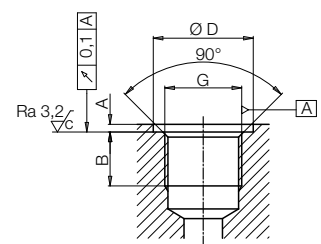
DIN 3852 T11 form E and EN ISO 1179-2  
NBR: -35°C.....+100°C (series)  
FKM: -25°C.....+200°C (available)




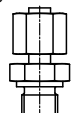
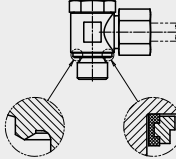
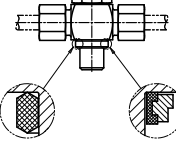


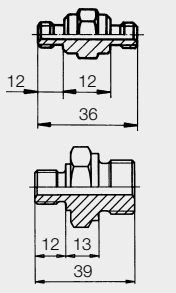


Suitable for soft mating materials (Alu).  
High precision sealing (no sweating).  
No retightening required.  
Unlimited repeated mounting.  
Interchangeable sealing ring.

**Tapped hole with Whitworth pipe thread**

EN ISO 1179-1 counterbore form N



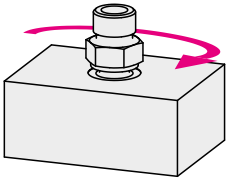
## Fittings as per DIN EN ISO 8434-1

Description	Pipe Ø	Screw-in threads	Form B with sealing edge			Form E with elastic seal		
			Type	PN [bar]	Part no.	Type	PN [bar]	Part no.
 Tube male stud coupling	6 8 8 10 15 8 8 10 16	G <sup>1</sup> / <sub>8</sub> G <sup>1</sup> / <sub>8</sub> G <sup>1</sup> / <sub>4</sub> G <sup>1</sup> / <sub>4</sub> G <sup>1</sup> / <sub>2</sub> G <sup>1</sup> / <sub>8</sub> G <sup>1</sup> / <sub>4</sub> G <sup>3</sup> / <sub>8</sub> G <sup>1</sup> / <sub>2</sub>	D6L D8L G <sup>1</sup> / <sub>8</sub> D8L D10L D15L D8S G <sup>1</sup> / <sub>8</sub> D8S D10S D16S	250 250 250 250 250 400 400 400 400	<b>9206 003</b> <b>9208 034</b> <b>9208 003</b> <b>9210 004</b> <b>9215 003</b> <b>9208 116</b> <b>9208 102</b> <b>9210 104</b> <b>9216 004</b>	D6L ED D8L G <sup>1</sup> / <sub>8</sub> ED D8L ED D10L ED D15L ED D8S G <sup>1</sup> / <sub>8</sub> ED D8S ED D10S ED D16S ED	250 250 250 250 250 500 630 630 500	<b>9206 028</b> <b>9208 075</b> <b>9208 131</b> <b>9210 028</b> <b>9215 033</b> <b>9208 164</b> <b>9208 132</b> <b>9210 029</b> <b>9216 021</b>
 Stand pipe union with sealing cone	8 10 8 10	G <sup>1</sup> / <sub>4</sub> G <sup>1</sup> / <sub>4</sub> G <sup>1</sup> / <sub>4</sub> G <sup>3</sup> / <sub>8</sub>				DCD8L DCD10L DCD8S DCD10S	250 250 630 630	<b>9208 017</b> <b>9210 109</b> <b>9208 018</b> <b>9210 136</b>
 Swivel banjo coupling	6 8 10 15 8 10 16	G <sup>1</sup> / <sub>8</sub> G <sup>1</sup> / <sub>4</sub> G <sup>1</sup> / <sub>4</sub> G <sup>1</sup> / <sub>2</sub> G <sup>1</sup> / <sub>4</sub> G <sup>3</sup> / <sub>8</sub> G <sup>1</sup> / <sub>2</sub>	SVH6LR SVH8LR SVH10LR SVH15LR SVH10SR SVH16SR	250 250 250 250 315 250	<b>9206 004</b> <b>9208 004</b> <b>9210 015</b> <b>9215 004</b> <b>9210 105</b> <b>9216 005</b>	DSVK6LROKDS DSVK8LROKDS DSVK10LROKDS DSVK15LROKDS SVH8SR ED DSVK10SROKDS DSVK16SROKDS	250 250 250 250 500 400 315	<b>9206 044</b> <b>9208 080</b> <b>9210 038</b> <b>9215 048</b> <b>9208 177</b> <b>9210 149</b> <b>9216 033</b>
 T-swivel coupling	6 8 10 15 8 10 16	G <sup>1</sup> / <sub>8</sub> G <sup>1</sup> / <sub>4</sub> G <sup>1</sup> / <sub>4</sub> G <sup>1</sup> / <sub>2</sub> G <sup>1</sup> / <sub>4</sub> G <sup>3</sup> / <sub>8</sub> G <sup>1</sup> / <sub>2</sub>	DSVQ6LRO DSVQ8LRO DSVQ10LRO DSVQ15LRO DSVQ10SRO DSVQ16SRO	250 250 250 250 315 315	<b>9206 019</b> <b>9208 120</b> <b>9210 006</b> <b>9215 030</b> <b>9210 107</b> <b>9216 007</b>	DSVQ6LROKDS DSVQ8LROKDS DSVQ10LROKDS DSVQ15LROKDS DSVQ8SR ED DSVQ10SROKDS DSVQ16SROKDS	250 250 250 250 500 400 315	<b>9206 048</b> <b>9208 169</b> <b>9210 154</b> <b>9215 050</b> <b>9208 178</b> <b>9210 153</b> <b>9216 035</b>
 Plug		G <sup>1</sup> / <sub>8</sub> G <sup>1</sup> / <sub>4</sub> G <sup>3</sup> / <sub>8</sub> G <sup>1</sup> / <sub>2</sub> G <sup>1</sup> / <sub>8</sub> G <sup>1</sup> / <sub>4</sub> G <sup>3</sup> / <sub>8</sub> G <sup>1</sup> / <sub>2</sub>	VSDG <sup>1</sup> / <sub>8</sub> A VSDG <sup>1</sup> / <sub>4</sub> A VSDG <sup>1</sup> / <sub>2</sub> A	400 400 400	<b>3610 047</b> <b>3300 821</b> <b>3610 045</b>	VSG <sup>1</sup> / <sub>8</sub> ED VSG <sup>1</sup> / <sub>4</sub> ED VSG <sup>3</sup> / <sub>8</sub> ED VSG <sup>1</sup> / <sub>2</sub> ED SW 14 x 7 high SW 19 x 8 high SW 22 x 10 high SW 27 x 11 high	400 400 400 400 500 500 500 500	<b>3610 158</b> <b>3610 191</b> <b>3610 099</b> <b>3610 098</b> <b>3610 263</b> <b>3610 264</b> <b>3610 325</b> <b>3610 265</b>
 Thread reducing adaptor		G <sup>3</sup> / <sub>8</sub> G <sup>1</sup> / <sub>2</sub> G <sup>1</sup> / <sub>2</sub>	GWR <sup>3</sup> / <sub>8</sub> - <sup>1</sup> / <sub>4</sub> GWR <sup>1</sup> / <sub>2</sub> - <sup>1</sup> / <sub>4</sub> GWR <sup>1</sup> / <sub>2</sub> - <sup>3</sup> / <sub>8</sub>	400 315 315	<b>3613 016</b> <b>3613 015</b> <b>3613 018</b>	GWR <sup>3</sup> / <sub>8</sub> ED- <sup>1</sup> / <sub>4</sub> GWR <sup>1</sup> / <sub>2</sub> ED- <sup>1</sup> / <sub>4</sub> GWR <sup>1</sup> / <sub>2</sub> ED- <sup>3</sup> / <sub>8</sub>	400 400 400	<b>3613 073</b> <b>3613 055</b> <b>3613 074</b>
 Double connector		G <sup>1</sup> / <sub>4</sub> - G <sup>1</sup> / <sub>4</sub>					500	<b>3610 261</b>
		G <sup>1</sup> / <sub>4</sub> - G <sup>1</sup> / <sub>2</sub>		400	<b>3610 062</b>		500	<b>3610 262</b>
 Elastic sealing for screwed plug form E		G <sup>1</sup> / <sub>8</sub> G <sup>1</sup> / <sub>4</sub> G <sup>3</sup> / <sub>8</sub> G <sup>1</sup> / <sub>2</sub>	ED10x1-G <sup>1</sup> / <sub>8</sub> ED14x1,5-G <sup>1</sup> / <sub>4</sub> ED G <sup>3</sup> / <sub>8</sub> ED G <sup>1</sup> / <sub>2</sub>	630 630 630 500	<b>NBR</b> <b>3002 253</b> <b>3002 142</b> <b>3002 256</b> <b>3002 258</b>	ED10x1-G <sup>1</sup> / <sub>8</sub> ED14x1,5-G <sup>1</sup> / <sub>4</sub> ED G <sup>3</sup> / <sub>8</sub> ED G <sup>1</sup> / <sub>2</sub>	630 630 630 500	<b>FKM</b> <b>3002 254</b> <b>3002 255</b> <b>3002 257</b> <b>3002 259</b>
 KDS sealing ring for swivel banjo couplings (.....KDS)		G <sup>1</sup> / <sub>8</sub> G <sup>1</sup> / <sub>4</sub> G <sup>3</sup> / <sub>8</sub> G <sup>1</sup> / <sub>2</sub>	KDS10 KDS14 KDS16 KDS22	250 400 400 315	<b>3002 260</b> <b>3002 261</b> <b>3002 262</b> <b>3002 263</b>	KDS10 KDS14 KDS16 KDS22	250 400 400 315	<b>3001 766</b> <b>3001 765</b> <b>3002 323</b> <b>3002 324</b>



## Mounting torque • Pipe clamps

### Mounting torques for tube male stud couplings and swivel banjo couplings



Fitting			Mounting torque [Nm]			
Series	Pipe OD	Thread	Screwed plug with		Swivel banjo couplings	
			Knife edge	Sealing ring	Knife edge	KDS ring
L	6	G 1/8	18	18	18	18
L	8	G 1/4	35	35	45	40
L	10	G 1/4	35	35	45	40
L	15	G 1/2	140	90	120	90
S	8	G 1/4	55	55	45	40
S	10	G3/8	90	80	70	65
S	16	G 1/2	130	115	120	110

Body material: Steel lubricated  
Aluminium -15%

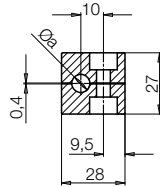
### Single pipe clamps

Material polyamide  
Depth of clamp 30 mm  
Fixing screws M6



1 clamp consists of two clamp segments

### Clamp size I

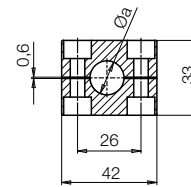


Pipe Ø a [mm]

Part no.

8	3300892
10	3300893
12	3300895

### Clamp size II



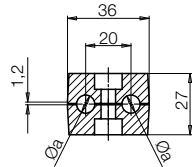
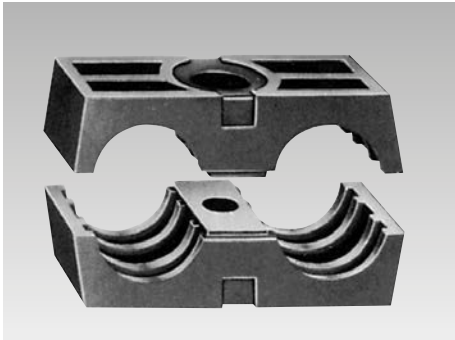
Pipe Ø a [mm]

Part no.

15	3300897
16	3300890

### Twin clamp

1 clamp consists of two clamp segments



Pipe Ø a [mm]

Part no.

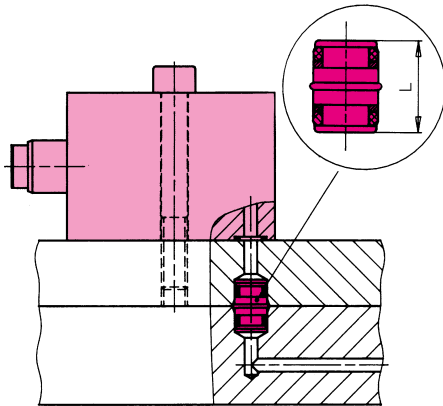
8	3300891
10	3300449

# Plug-type connectors • Screw plugs

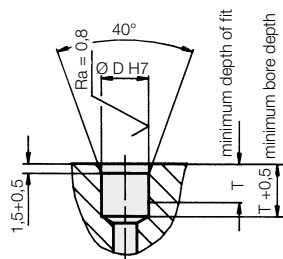
## Plug-type connectors with FKM sealings for plates and piping strips (max. operating pressure 500 bar)

### Short version for connections without space

Installation example



Installation dimensions short version

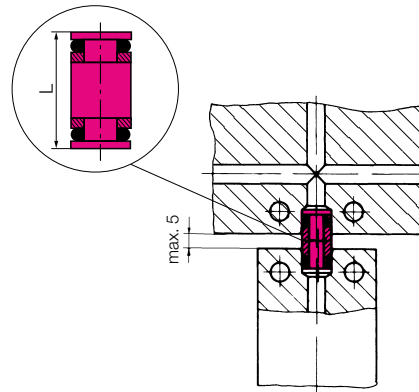


**Note:** max. mismatch of bore holes: 0.015 mm

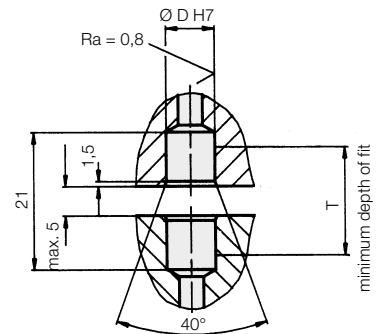
ND	Ø D H7	L	T	Part no.
3	8	12	6	9210 145
5	10	14	7	9210 132

### Long version for connections with space up to 5 mm

Installation example



Installation dimensions long version

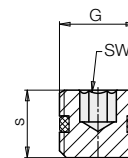


**Note:** max. mismatch of bore holes:  
0,015 mm with gap 0 mm  
0,1 mm with gap 5 mm

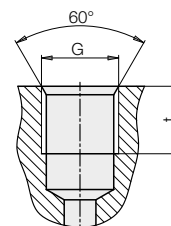
ND	Ø D H7	L	T	Part no.
5	10	19	19	9210 127

## Screw plug with threaded sealing ring (max. operating pressure 500 bar)

G		G 1/8	G 1/4
s	[mm]	8.5	12
t	[mm]	8.5	12.5
SW	[mm]	4	6
<b>Part no.</b>		<b>0361 986</b>	<b>0361 987</b>
Spare O-ring		<b>3001 748</b>	<b>3000 102</b>



Porting details



## Pressure gauges for pipe mounting



### Pressure gauge with sealing plug

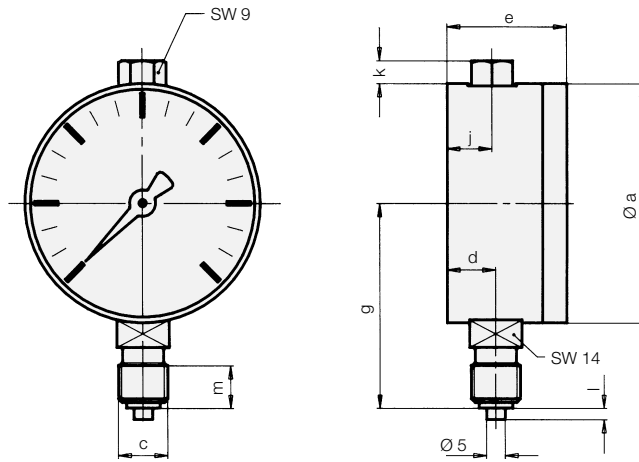
#### Important note

Pressure gauges with screw plugs must not be used in coolant jets.

In this case, the pressure gauge has to be used with screw plug or closed housing.



### Pressure gauge with screw plug



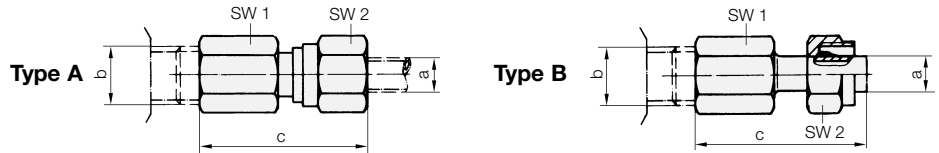
### Pressure gauge with glycerine filling and sealing plug

Measuring range	Ø a	c	d	e	g±1	j	k	l	m	Part no.
0– 40 bar	68	G ¼	13	32	54	12	–	3	12	<b>9820 000</b>
0–100 bar	68	G ¼	13	32	54	12	–	3	12	<b>9821 000</b>
0– 250 bar without glycerine filling	68	G ¼	13	32	54	–	–	3	12	<b>9810 000</b>
0–250 bar	68	G ¼	13	32	54	12	–	3	12	<b>9822 000</b>
0–400 bar	68	G ¼	13	32	54	12	–	3	12	<b>9823 000</b>

### Pressure gauge with glycerine filling and screw plug, wrench size SW 9 or closed housing

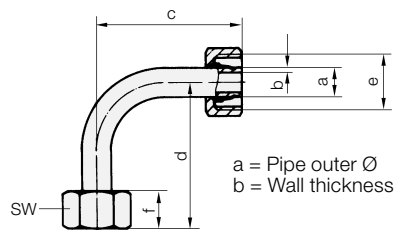
Measuring range	Ø a	c	d	e	g±1	j	k	l	m	Part no.
0–250 bar	63	G ¼	17.5	42	53	16	5	3	12	<b>9822 005</b>
0–400 bar	63	G ¼	17.5	42	53	16	5	3	12	<b>9823 005</b>
0–600 bar	63	G ¼	17.5	42	53	16	5	3	12	<b>9846 000</b>

### Pressure gauge union with edge sealing ring



Type	Fitting	a	b	c	SW1	SW2	Part no.
A	0–250 bar	8	G ¼	37	17	17	<b>9208 011</b>
B	0–250 bar	8	G ¼	40	19	17	<b>9208 042</b>
A	0–500 bar	8	G ¼	42	19	19	<b>9208 040</b>
B	0–500 bar	8	G ¼	40	19	19	<b>9208 041</b>
A	0–500 bar	8	G ½	41	27	19	<b>9208 110</b>

### 90°-elbow



90°-elbow	a	b	c	d	e	f	SW	Part no.
0–250 bar	8	1	48	48	M 14 x 1.5	15	17	<b>9811 011</b>
0–500 bar	8	2	48	76	M 16 x 1.5	16	19	<b>9811 012</b>