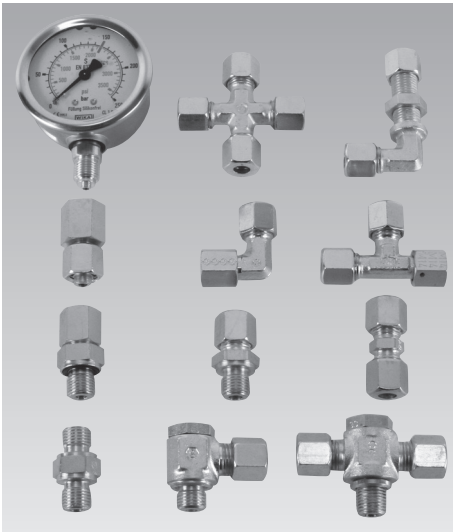




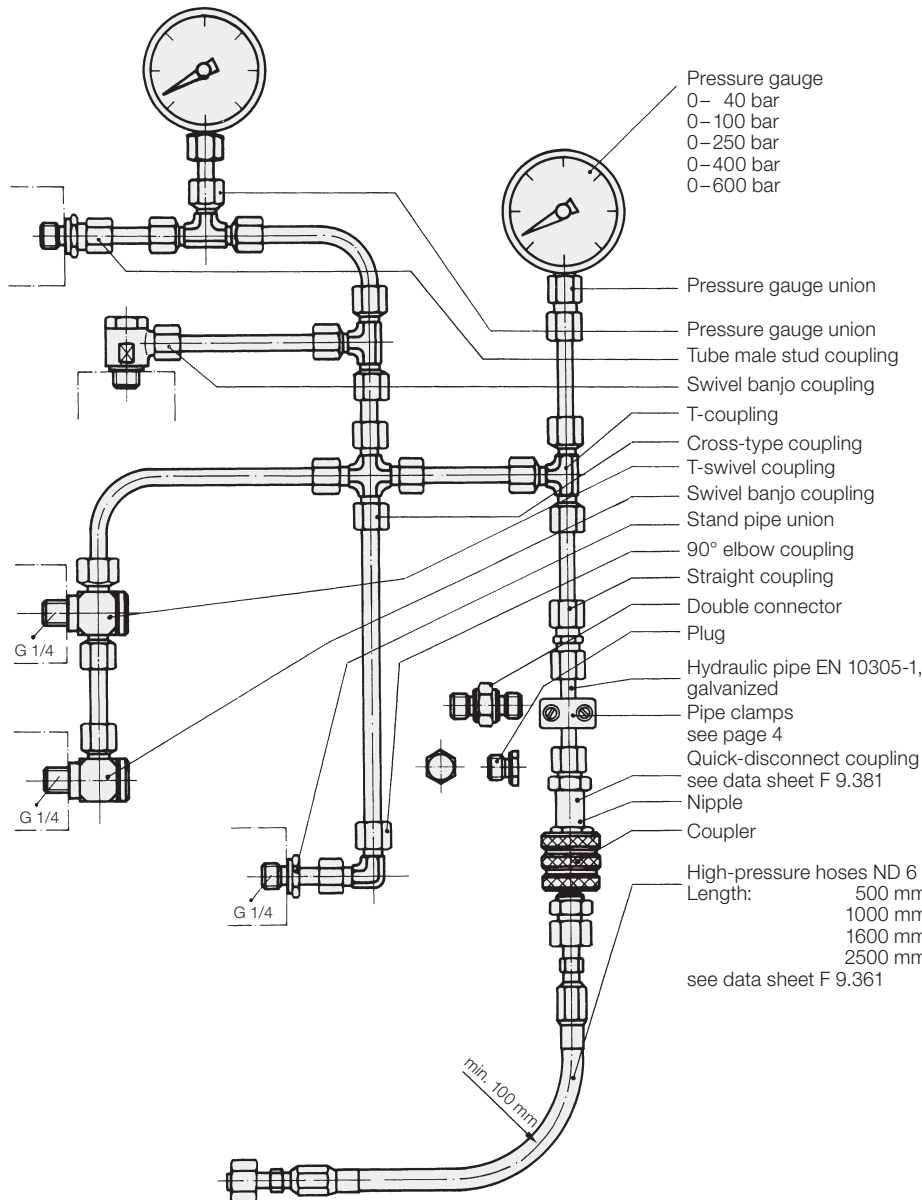
Fittings with 24° cone as per DIN EN ISO 8434-1
Fitting accessories, plug-type connectors,
hydraulic pipes, pipe clamps, pressure gauges



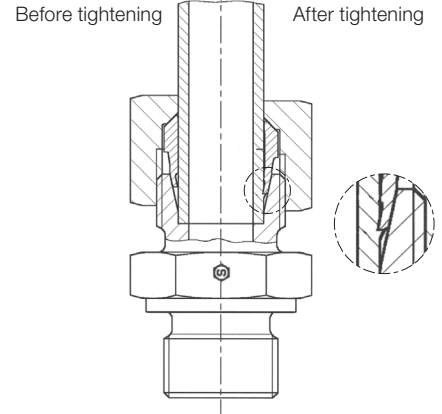
Advantages

- 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)

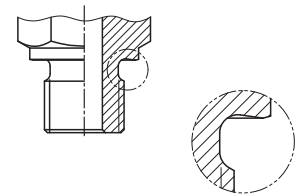
Application example



Tube male stud coupling with cutting ring and union nut

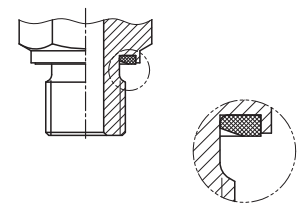


Screwed plug with knife edge
DIN 3852 T2 form B and EN ISO 1179-4



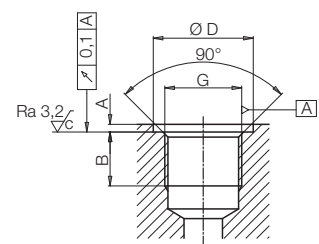
Suitable for high temperatures and aggressive media.

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)


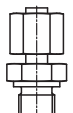
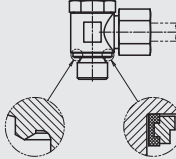
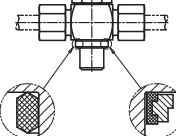


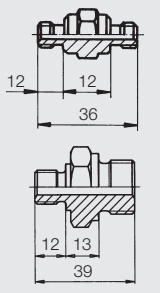




Suitable for soft mating materials (Alu).
High precision sealing (no sweating).
No retightening required.
Unlimited repeated mounting.
Interchangeable sealing ring.



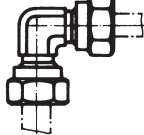

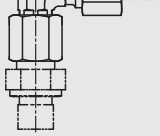

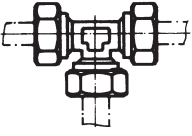

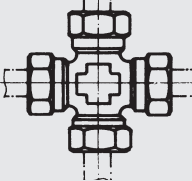
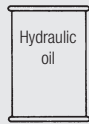

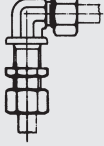
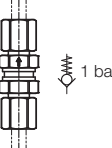
Tapped hole with Whitworth pipe thread
EN ISO 1179-1 counterbore form N



Fittings as per DIN EN ISO 8434-1

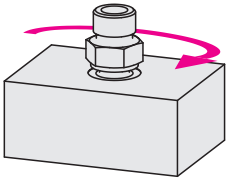
Description	Pipe Ø	Screw-in threads	Form B with sealing edge			Form E with elastic seal		
			Type	PN [bar]	Part no.	Type	PN [bar]	Part no.
 Tube male stud coupling	6	G ¹ / ₈	D6L	250	9206003	D6L ED	250	9206028
	8	G ¹ / ₈	D8L G ¹ / ₈	250	9208034	D8L G ¹ / ₈ ED	250	9208075
	8	G ¹ / ₄	D8L	250	9208003	D8L ED	250	9208131
	10	G ¹ / ₄	D10L	250	9210004	D10L ED	250	9210028
	15	G ¹ / ₂	D15L	250	9215003	D15L ED	250	9215033
	8	G ¹ / ₈	D8S G ¹ / ₈	400	9208116	D8S G ¹ / ₈ ED	500	9208164
	8	G ¹ / ₄	D8S	400	9208102	D8S ED	630	9208132
	10	G ³ / ₈	D10S	400	9210104	D10S ED	630	9210029
	16	G ¹ / ₂	D16S	400	9216004	D16S ED	500	9216021
 Stand pipe union with sealing cone	8	G ¹ / ₄				DCD8L	250	9208017
	10	G ¹ / ₄				DCD10L	250	9210109
	8	G ¹ / ₄				DCD8S	630	9208018
	10	G ³ / ₈				DCD10S	630	9210136
 Swivel banjo coupling	6	G ¹ / ₈	SVH6LR	250	9206004	DSVK6LROKDS	250	9206044
	8	G ¹ / ₄	SVH8LR	250	9208004	DSVK8LROKDS	250	9208080
	10	G ¹ / ₄	SVH10LR	250	9210015	DSVK10LROKDS	250	9210038
	15	G ¹ / ₂	SVH15LR	250	9215004	DSVK15LROKDS	250	9215048
	8	G ¹ / ₄				SVH8SR ED	500	9208177
	10	G ³ / ₈	SVH10SR	315	9210105	DSVK10SROKDS	400	9210149
	16	G ¹ / ₂	SVH16SR	250	9216005	DSVK16SROKDS	315	9216033
 T-swivel coupling	6	G ¹ / ₈	DSVQ6LRO	250	9206019	DSVQ6LROKDS	250	9206048
	8	G ¹ / ₄	DSVQ8LRO	250	9208120	DSVQ8LROKDS	250	9208169
	10	G ¹ / ₄	DSVQ10LRO	250	9210006	DSVQ10LROKDS	250	9210154
	15	G ¹ / ₂	DSVQ15LRO	250	9215030	DSVQ15LROKDS	250	9215050
	8	G ¹ / ₄				DSVQ8SR ED	500	9208178
	10	G ³ / ₈	DSVQ10SRO	315	9210107	DSVQ10SROKDS	400	9210153
 Plug		G ¹ / ₈	VSDG ¹ / ₈ A	400	3610047	VSG ¹ / ₈ ED	400	3610158
		G ¹ / ₄	VSDG ¹ / ₄ A	400	3300821	VSG ¹ / ₄ ED	400	3610191
		G ³ / ₈				VSG ³ / ₈ ED	400	3610099
		G ¹ / ₂	VSDG ¹ / ₂ A	400	3610045	VSG ¹ / ₂ ED	400	3610098
		G ¹ / ₈				SW 14 x 7 high	500	3610263
		G ¹ / ₄				SW 19 x 8 high	500	3610264
		G ³ / ₈				SW 22 x 10 high	500	3610325
		G ¹ / ₂				SW 27 x 11 high	500	3610265
 Thread reducing adaptor		G ³ / ₈	GWR ³ / ₈ - ¹ / ₄	400	3613016	GWR ³ / ₈ ED- ¹ / ₄	400	3613073
		G ¹ / ₂	GWR ¹ / ₂ - ¹ / ₄	315	3613015	GWR ¹ / ₂ ED- ¹ / ₄	400	3613055
		G ¹ / ₂	GWR ¹ / ₂ - ³ / ₈	315	3613018	GWR ¹ / ₂ ED- ³ / ₈	400	3613074
 Double connector		G ¹ / ₄ - G ¹ / ₄					500	3610261
		G ¹ / ₄ - G ¹ / ₂		400	3610062		500	3610262
 Elastic sealing for screwed plug form E		G ¹ / ₈	ED10x1-G ¹ / ₈	630	3002253	ED10x1-G ¹ / ₈	630	3002254
		G ¹ / ₄	ED14x1,5-G ¹ / ₄	630	3002142	ED14x1,5-G ¹ / ₄	630	3002255
		G ³ / ₈	ED G ³ / ₈	630	3002256	ED G ³ / ₈	630	3002257
		G ¹ / ₂	ED G ¹ / ₂	500	3002258	ED G ¹ / ₂	500	3002259
 KDS sealing ring for swivel banjo couplings (.....KDS)		G ¹ / ₈	KDS10	250	3002260	KDS10	250	3001766
		G ¹ / ₄	KDS14	400	3002261	KDS14	400	3001765
		G ³ / ₈	KDS16	400	3002262	KDS16	400	3002323
		G ¹ / ₂	KDS22	315	3002263	KDS22	315	3002324

**Cutting ring unions as per DIN EN ISO 8434-1
Accessories • Hydraulic pipes • Hydraulic oil**

Description	Pipe Ø	Union nut	Type	PN [bar]	Part no.	Description	Pipe Ø	Union nut	Type	PN [bar]	Part no.	
Straight coupling 	6	M 12x1.5	E6L	250	9206007	Union nut 	6	M 12x1.5	m6L	250	9206001	
	8	M 14x1.5	E8L	250	9208007		8	M 14x1.5	m8L	250	9208001	
	10	M 16x1.5	E10L	250	9210007		10	M 16x1.5	m10L	250	9210002	
	15	M 22x1.5	E15L	250	9215007		15	M 22x1.5	m15L	250	9215001	
	8	M 16x1.5	E8S	630	9208106		8	M 16x1.5	m8S	630	9208100	
	16	M 24x1.5	E16S	500	9216008		10	M 18x1.5	m10S	630	9210102	
						16	M 24x1.5	m16S	500	9216002		
90° elbow coupling 	6	M 12x1.5	K6L	250	9206008	Cutting ring 	6		s6L	250	9206002	
	8	M 14x1.5	K8L	250	9208008		8		s8L/S	250	9208101	
	10	M 16x1.5	K10L	250	9210008		10		s10L/S	250	9210103	
	15	M 22x1.5	K15L	250	9215008		15		s15L	250	9215002	
	8	M 16x1.5	K8S	630	9208107		8		s8L/S	630	9208101	
	10	M 18x1.5	K10S	630	9210112		10		s10L/S	630	9210103	
						16		s16S	500	9216003		
Standpipe elbow with sealing cone 	8	M 14x1.5	KED8L	250	9208038	Blanking plug 	6		VB6S	630	9206023	
	8	M 16x1.5	KED8S	630	9208036		8		VB8S	630	9208039	
T-coupling 	6	M 12x1.5	Q6L	250	9206009	Hydr. pipe galvanized as per EN 10305-1 	8x1			250	3128112	
	8	M 14x1.5	Q8L	250	9208009		8x1.5			400	3128113	
	10	M 16x1.5	Q10L	250	9210009		8x2			500	3128212	
	15	M 22x1.5	Q15L	250	9215009		10x1			200	3128114	
	8	M 16x1.5	Q8S	630	9208108		15x1.5			200	3128119	
	10	M 18x1.5	Q10S	630	9210113		Available lengths 1.5 or 3.0 m					
					16	M 24x1.5	Q16S	500	9216010			
Cross-type coupling 	6	M 12x1.5	KV6L	250	9206011	Hydraulic oil as per DIN 51524-2 (max. 120 °C) 	HLP 22	1 L	9892001			
	8	M 14x1.5	KV8L	250	9208010			5 L	9893001			
	10	M 16x1.5	KV10L	250	9210010			20 L	9894001			
	15	M 22x1.5	KV15L	250	9215010		HLP 32	1 L	9895001			
	8	M 16x1.5	KV8S	630	9208109			5 L	9891001			
	10	M 18x1.5	KV10S	630	9210114			20 L	9899001			
					16	M 24x1.5	KV16S	400	9216011	HLP 46	1 L 9896001 5 L 9897001 20 L 9898001	
Straight bulk head fitting 	6	M 12x1.5	R6L	250	9206026	Fire-resistant hydraulic liquids Oemeta HF-Du (max. 200 °C) on request						
	8	M 14x1.5	R8L	250	9208023							
	10	M 16x1.6	R10L	250	9210117							
	15	M 22x1.5	R15L	250	9215022							
	8	M 16x1.5	R8S	630	9208117							
	10	M 18x1.5	R10S	630	9210119							
					16	M 24x1.5	R16S	500	9216017			
90° elbow bulk head fitting 	6	M 12x1.5	U6L	250	9206014							
	8	M 14x1.5	U8L	250	9208029							
	10	M 16x1.5	U10L	250	9210110							
	15	M 22x1.5	U15L	250	9215018							
	8	M 16x1.5	U8S	630	9208118							
	10	M 18x1.5	U10S	630	9210027							
					16	M 24x1.5	U16S	500	9216020			
Check valve, poppet type 	6	M 12x1.5	RWD6L	250	9206012							
	8	M 14x1.5	RWD8L	250	9208012							
	10	M 16x1.5	RWD10L	250	9210012							
	15	M 22x1.5	RWD15L	250	9215011							
	8	M 16x1.5	RWD8S	400	9208111							
	10	M 18x1.5	RWD10S	400	9210116							
					16	M 24x1.5	RWD16S	400	9216012			

Mounting torque • Pipe clamps

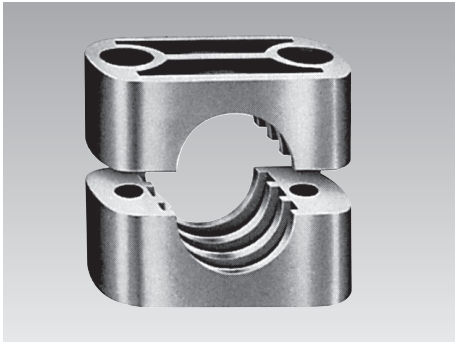
Mounting torques for tube male stud couplings and swivel banjo couplings



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 %	

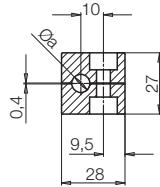
Single pipe clamps

Material polyamide
 Depth of clamp 30 mm
 Fixing screws M6



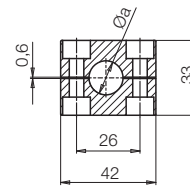
1 clamp consists of two clamp segments

Clamp size I



Pipe Ø a [mm]	Part no.
8	3300892
10	3300893
12	3300895

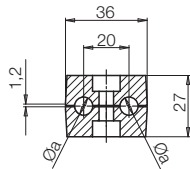
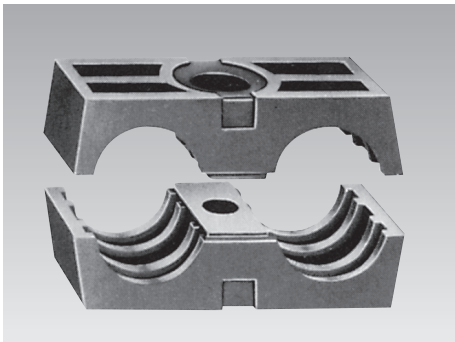
Clamp size II



Pipe Ø a [mm]	Part no.
15	3300897
16	3300890

Twin clamp

1 clamp consists of two clamp segments



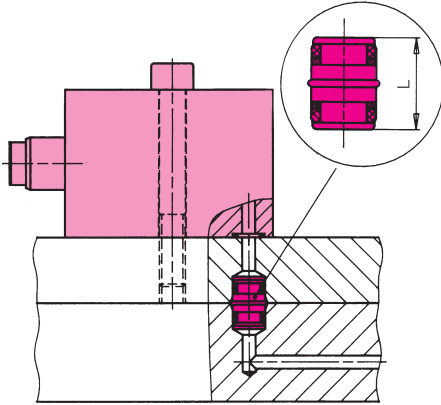
Pipe Ø a [mm]	Part no.
8	3300891
10	3300449

Plug-type connectors • Screw plugs

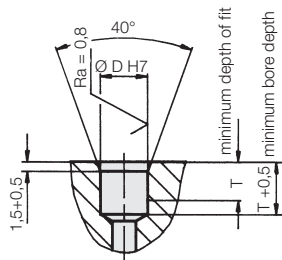
Plug-type connectors with FKM sealings for plates and piping strips (max. operating pressure 500 bar)

Short version for connections without space

Installation example



Installation dimensions short version

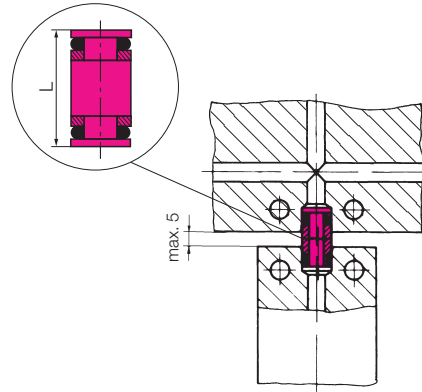


Note: max. mismatch of bore holes: 0.015 mm

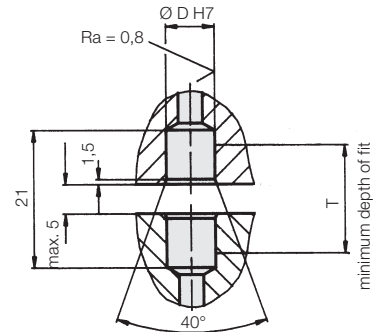
ND	Ø D H7	L	T	Part no.
3	8	12	6	9210 145
5	10	14	7	9210 132

Long version for connections with space up to 5 mm

Installation example



Installation dimensions long version

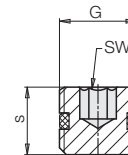


Note: max. mismatch of bore holes:
0,015 mm with gap 0 mm
0,1 mm with gap 5 mm

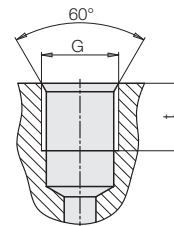
ND	Ø D H7	L	T	Part no.
5	10	19	19	9210 127

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
Part no.		0361 986	0361 987
Spare O-ring		3001 748	3000 102



Porting details



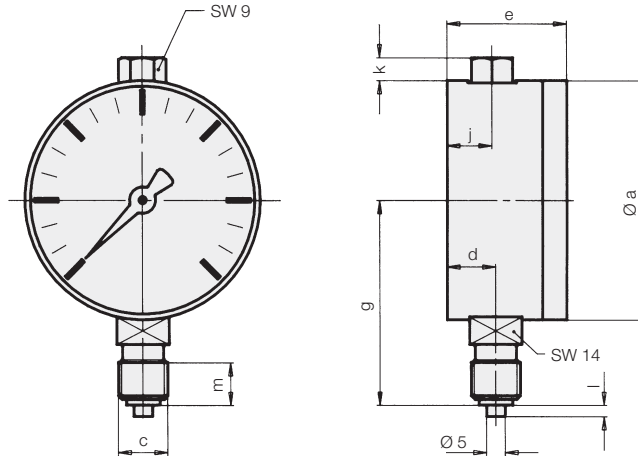
Pressure gauges for pipe mounting



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 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	9820 000
0–100 bar	68	G ¼	13	32	54	12	–	3	12	9821 000
0–250 bar without glycerine filling	68	G ¼	13	32	54	–	–	3	12	9810 000
0–250 bar	68	G ¼	13	32	54	12	–	3	12	9822 000
0–400 bar	68	G ¼	13	32	54	12	–	3	12	9823 000

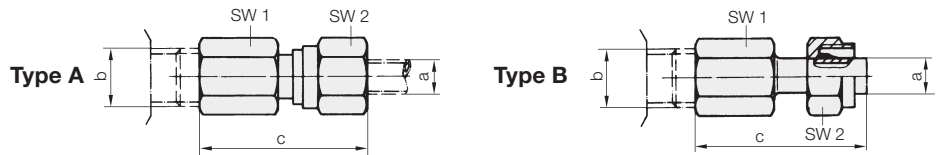
Pressure gauge with glycerine filling and screw plug, wrench size SW 9 or closed housing

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	9822 005
0–400 bar	63	G ¼	17.5	42	53	16	5	3	12	9823 005
0–600 bar	63	G ¼	17.5	42	53	16	5	3	12	9846 000



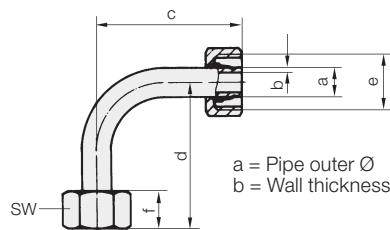
Pressure gauge with screw plug

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	9208 011
B	0–250 bar	8	G ¼	40	19	17	9208 042
A	0–500 bar	8	G ¼	42	19	19	9208 040
B	0–500 bar	8	G ¼	40	19	19	9208 041
A	0–500 bar	8	G ½	41	27	19	9208 110

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	9811 011
0–500 bar	8	2	48	76	M 16 x 1.5	16	19	9811 012