

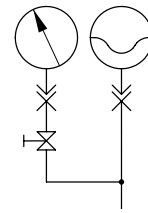
Fittings type X 84

for pressure gauges and other hydraulic equipment
with tapped journal G 1/4 A (BSPP)

Fittings type X
(with tapped journal G 1/2 A (BSPP))
Assembly examples

D 7065
Sk 7200 M, Sk 7900 H

Pressure $p_{max} = 700$ bar



1. General

Fittings type X are a versatile means of mounting gauges and monitoring devices, enabling optimized positioning at pipes, individual valves and valve banks.

2. Available versions, main data

Order examples: **X 84 G**

Plain fitting

X 84 U - AC 40/100 - 9/400

Connector with shut-off valve, pressure gauge and miniature accumulator
(see photo above)

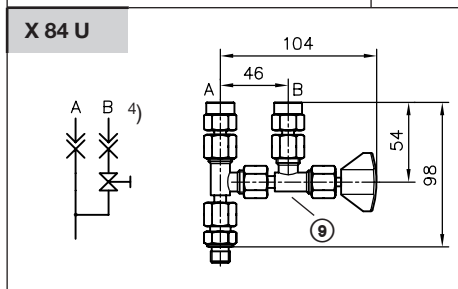
Hydraulic equipment table 2 (page 2)

Table 1: Fittings (tapped journals G_1 and $G_2 = G 1/4$ (BSPP))

<p>X 84 M</p>	<p>X 84 G</p>	<p>X 84 S</p>
<p>X 84 W</p>	<p>X 84 T</p>	<p>X 84 V</p>
<p>X 84 Z</p>	<p>X 84 Y</p>	<p>X 84 H</p>
<p>X 84 WAV</p>	<p>X 84 DAV</p>	<p>G 8 V ⁵⁾</p> <p>G 8 MA ⁶⁾</p>

- 1) Required tapped journal M16x1.5 DIN 2353 for Ø8S heavy
- 2) Symbol generally simplified in diagrams, as with X 84 G
- 3) When self-assembling the unit from individual components, leave out one M8-S/A3C cap nut and DPR8S cutting ring
- 4) A and B connection specifications only for symbol, not stamped on units bolted together
- 5) For notes and details, see table 3
- 6) Test point fitting SMK 20-G 1/4*-PC

$G_1 = G 1/4$ (A) *
 $G_2 = G 1/4$ *
 $G_3 = 8$ (pipe 8x2)
 $SW_1 = 19$ (50 Nm)
 $SW_2 = 22$ (70 Nm)
 $(SW = a/f)$
 * (BSPP)



Indiv. components and their respective order specifications:

- | | |
|---|--|
| ① Pressure gauge connection manifolds Counterhold while mounting additional elements (pressure gauge, accumulator etc.) | ⑤ GE8-PSR/A3C bolt-on connection, straight |
| ② DKI R 1/4 cutting edge ring | ⑥ SWVE8-PSR/A3C swivel connection |
| ③ M8-S/A3C cap nut | ⑦ XEVK8-PS-A3CL connection manifold |
| ④ DPR8-S cutting ring | ⑧ EVW8-PS-A3C angular threaded connection |
| | ⑨ Shut off valve AVM8 acc. to D 7690 |

Table 2: Hydraulic equipment

<p>Glycerin-dampened pressure gauge</p> <p>Pressure gauge Ø63</p> <p>1454 series (9/...) - Stainless steel housing</p> <p>1456 series (9/...A) - Plastic housing (ABS) (Tolerance class 1,6; EN 837-1)</p> <p>Pressure gauge Ø50 ¹⁾</p> <p>1438 series (95/...) 1428 series (95/...A) - Both plastic housing (ABS) (Tolerance class 2,5; EN 837-1)</p> <p>Intended application: Static load: 3/4x max. scale reading Vaying load: 2/3x max. scale reading</p>	Connection journals		Scale	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>9/... 95/...</p> </div> <div style="text-align: center;"> <p>9/... A 95/... A</p> </div> </div> <table border="1" style="margin-top: 10px; width: 100%;"> <thead> <tr> <th></th> <th>a</th> <th>b</th> <th>b₁</th> <th>b₂</th> <th>D₁</th> <th>D₂</th> <th>h</th> </tr> </thead> <tbody> <tr> <td>9/..., 9/...A</td> <td>13</td> <td>32</td> <td>32</td> <td>56</td> <td>62.2</td> <td>63</td> <td>54.2</td> </tr> <tr> <td>95/..., 95/...A</td> <td>11.5</td> <td>27</td> <td>29.5</td> <td>53</td> <td>55</td> <td>51</td> <td>48</td> </tr> </tbody> </table>		a	b	b ₁	b ₂	D ₁	D ₂	h	9/..., 9/...A	13	32	32	56	62.2	63	54.2	95/..., 95/...A	11.5	27	29.5	53	55	51	48
		a	b		b ₁	b ₂	D ₁	D ₂	h																			
	9/..., 9/...A	13	32		32	56	62.2	63	54.2																			
	95/..., 95/...A	11.5	27		29.5	53	55	51	48																			
	Radial, bottom	Central, rear	from ... to (bar)																									
	Pressure gauge Ø63																											
	9/100	9/100 A	0 ... 100																									
	9/160	9/160 A	0 ... 160																									
	9/250	9/250 A	0 ... 250																									
	9/400	9/400 A	0 ... 400																									
	9/600	9/600 A	0 ... 600																									
	9/1000	9/1000 A	0 ... 1000																									
	Pressure gauge Ø50																											
	95/100	95/100 A	0 ... 100																									
95/160	95/160 A	0 ... 160																										
95/250	95/250 A	0 ... 250																										
95/400	95/400 A	0 ... 400																										

<p>Miniature hydraulic accumulator type AC acc. to D 7571</p> <p>For specifications, curves, and dimensions see D 7571</p>	Coding with gas filling pressure in (bar)	Max. pressure (bar)	Gas filling pressure (bar)	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>AC 13 ACS 13</p> </div> <div style="text-align: center;"> <p>AC 40</p> </div> </div>
	AC 13/...	500	10 ... 250	
	ACS 13/...			
	AC 40/...	400		

<p>Pressure switch type DG 3.. acc. to D 5440</p> <p>(for missing data see D 5440)</p>	DG 3.. - Y1	suitable for X 84 M to X 84 U	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Y 1</p> </div> <div style="text-align: center;"> <p>Y 8</p> </div> </div>
	DG 3.. - Y8	When combined with X 84, parts ① and ② from sect. 2 are superfluous.	

Note:

Both versions -Y1 and -Y8 may be combined and ordered with fittings X 84 M to X 84 U directly from HAWE.

The desired fittings have to be ordered as individual parts ⑤ to ⑧ B acc. to sect. 2, when a DG 3..-Y 8 is to be retrofitted (see example in sect. 4).

At fittings type X 84 W, T and H, the pressure switch type DG 3..-Y 8 has to be mounted at port B always, when combined with fitting accumulator or pressure gauge.

These pressure switches type DG 3.. may be mounted directly at the various valve banks (see D 7470 B/1, D 7302 etc.) but this has to be decided already during the design phase.

¹⁾ The pressure gauge Ø50 are mainly intended for valves type NBVP 16 acc. to D 7765 N and NSWP 2 acc. to D 7451 N when combined with valve banks type BA acc. to D 7788.

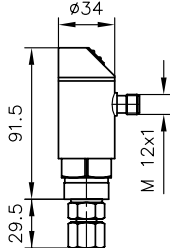
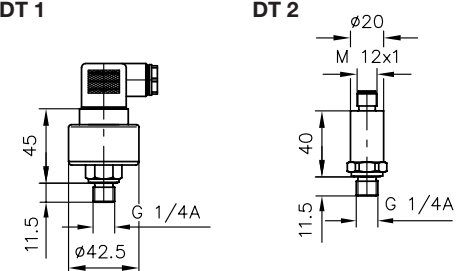
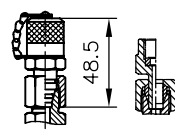
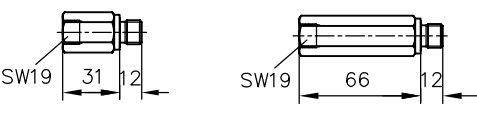

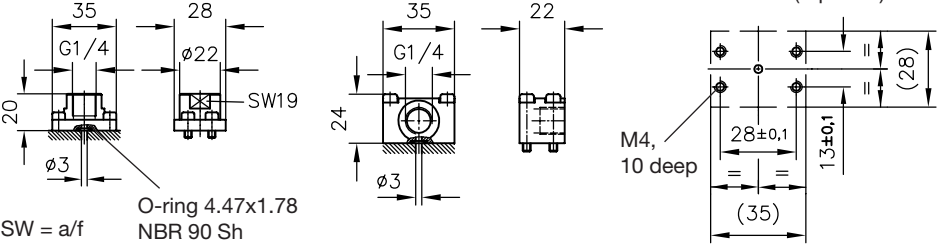
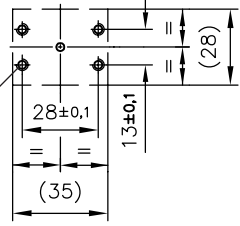

<p>Pressure sensor type DT acc. to D 5440 T and D 5440 T/1 for missing data see D 5440 T/1</p>	<p>DT 1 - .. DT 1V - .. DT 2 DT 2V</p>	<p>suitable for X 84 M to X 84 U</p> 	<p>DT 1 DT 2</p> 
<p>Pressure switch type DG 5 (for missing data see D 5440 E) in combination with ERMETO-E GE 8-SR-ED (male stud fitting with sealing taper). When combined with X 84 G to X 84 U, parts ① to ④ are superfluous.</p>	<p>DG 5E - ..</p>	<p>Combinations of DG 5 with ERMETO-EGE 8-SR-ED</p>	
<p>Minature pressure gauge fitting (indiv. order: type SMK 20-08 S-PK / part No. 8210 0005-00)</p>	<p>MA 8</p>		

Table 3: Accessory

<p>Prolongations with thread seal (G 1/4 NBR)</p>	<p>Coding</p> <p>K 1/4</p> <p>L 1/4</p>	<p>Indiv. comp. order No.</p> <p>6920 210 a</p> <p>6920 210 b</p>	<p>K 1/4 L 1/4</p> 	<p>The prolongations enable correct positioning of the fittings or other hydraulic equipment.</p>
<p>Adapter</p> 	<p>Y 9</p> <p>Y 9 W</p>	<p>Y 9 Y 9 W</p>  <p>O-ring 4.47x1.78 NBR 90 Sh</p> <p>SW = a/f</p>	<p>Hole pattern of the manifold (top view)</p> 	
<p>Plug</p> 	<p>G 8 V</p>	<p>Component part. (Co. EO):</p> <ul style="list-style-type: none"> VKA8 blanking plug with O-ring 6x1.5 90 Sh a/f 19 M8-S/A3C cap nut a/f 19 XGE8-PSR/A3C bolt-on manifold 	<p>Note: Only minimum torque, lower than with cutting edge rings, is required.</p>	

There are usually a sufficient No. of pressure gauge ports M1, M2, M... at valve banks or valve bank combinations in circuits with several pressure circuits. Many of them are usually used only during initial operation, regular maintenance, or repair of the system. Only the pressure gauge for monitoring the operation is usually installed permanently at a suitable position. Whenever a pressure gauge pick up port is required for maintenance the whole system should be depressurized prior to replacing the blocking taper incl. the sleeve nut by a pressure gauge and X 84 M (parts ① and ② acc. to table 1).

3. Additional data

Nomenclature	Fittings for hydraulic measuring units or other accessory with male thread G 1/4 A ISO 228/1 (BSPP)
Design	Solder-less pipe fittings with sealing edge / cutting ring and tapped journals with sealing edge conforming DIN 2353, Co. ERMETO, NG 8, heavy duty design with or without ancillary parts acc. to over view in sect. 2
Material	All steel design; surface zinc galvanized; EO-components are additionally chromed yellow (A3C)
Installation position	Any
Pressure	Nominal pressure ND 630 bar (approx. 4-fold safety, at 700 bar approx. 3.5-fold safety), version X 84 S (table 1) ND 400 bar Caution: Observe the permissible operating pressures of the components used in the hydraulic circuits!
Pressure fluid	Observe the pressure fluid specification for the other components of the system. When not specified otherwise the following applies: Hydraulic oil conforming DIN 51524 part 1 to 3: ISO VG 10 to 68 conforming DIN 51519. Viscosity limits: min. approx. 4, max. approx. 1500 mm ² /sec; opt. operation approx. 10... 500 mm ² /sec. Also suitable are biologically degradable pressure fluids types HEPG (Polyalkylenglycol) and HEES (Synth. Ester) at service temperatures up to approx. +70°C.
Temperature	Observe the permissible temperature specification for the other components of the system. When not specified otherwise the following applies: Ambient: approx. -40 ... +80°C; fluid: -25 ... +80°C; note the viscosity range ! Permissible temperature during start: -40°C (observe start-viscosity!), as long as the service temperature is at least 20K higher for the following operation. Biologically degradable pressure fluids: Observe manufacturer's specifications. By consideration of the compatibility with seal material not over +70°C.
Mass (weight)	Fittings (table 1):

Type	X 84 M	X 84 G	X 84 S	X 84 W	X 84 T	X 84 V	X 84 Z	X 84 H
approx. (g)	60	90	130	160	200	160	210	300

Type	X 84 WAV	X 84 DAV	X 84 Y	X 84 U
approx. (g)	210	270	280	310

Hydraulic equipment (table 2 and 3):

Type	9/.., 95/..	9/..A, 95/..A	AC(S)13/..	AC40/..	DG3..-Y1	DG3..Y8
approx. (g)	120	150	300	650	450	350

Type	DT 1(V)	DT 2(V)	DG 5	K 1/4	L 1/4 Y 9 W	G 8 V G 8 MA	Y 9
approx. (g)	150	70	310	60	130	70	80

4. Combination examples

