

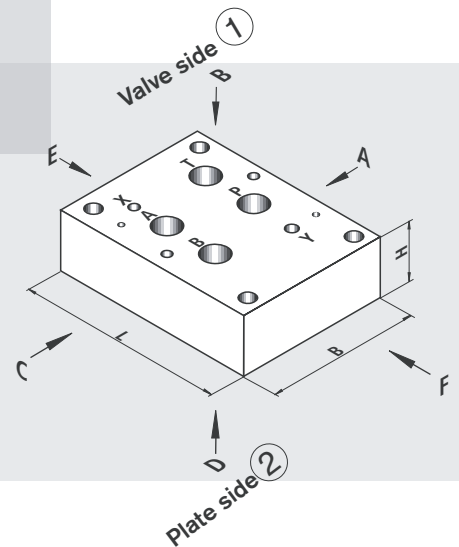
# Sandwich plates

## Porting pattern to DIN 24340 form A and ISO 4401

RE 48056/04.06  
Replaces: 10.05

1/24

### Type HSZ 22

Size 22  
Component series 3X  
Maximum operating pressure 315 bar

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Information on available spare parts:  
[www.boschrexroth.com/spc](http://www.boschrexroth.com/spc)

## Features

- Vertical stacking modules of sandwich plate design
- Supplements the existing sandwich plate product range
- Mounted as individual modules or as vertical stacking assemblies on multi-station manifolds, modular plate system IH20 or vario-plates
- Great variability due to the possibility of different combinations and subsequent changes or extension of functions
- Maximum operating pressure
  - Without valve function: 315 bar
  - With valve function: Max. 315 bar (depends on valves fitted)
- Weight data includes installed or mounted valves

## Explanation of type code for sandwich plates HSZ 22

HSZ 22 B 1 – 3X/ 2 3 4

1  
  Serial number of function version from 001 ... 999 (determined in the factory)

2  
  **Type of seal:** NBR seals = M (standard)  
 (other seals on enquiry) FKM seals = V

**Note: Observe compatibility of seals with hydraulic fluid used!**

3  
  **Type of connection:** No external connection = 00  
 Connection to DIN 3852 part = 01  
 Thread to DIN ISO 228 (pipe thread)

4  
\* Further details in clear text

## Order examples:

Material no.	Type designation	Component designation
R900901980	HSZ 22 B036-3X/M01	Sandwich plate without valve function
R900959272	HSZ 22 B181-3X/05M01	Sandwich plate with fixed valve configuration
R900900309	HSZ 22 B106-3X/ <sup>15</sup> <span style="border: 1px solid black; padding: 0 2px;">S</span> <sup>16</sup> <span style="border: 1px solid black; padding: 0 2px;">200</span> M00	Sandwich plate with selectable valve configuration

For the type codes and order examples of sandwich plates fitted with valves, see the relevant function groups!

Sandwich plates with optional valves fitted can be delivered as complete unit (with valves installed) or as assembly kit (only with seals, plug screws, nameplate).

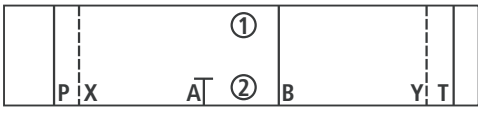
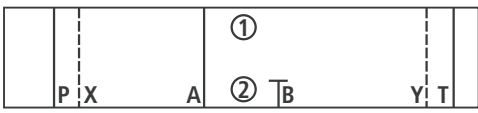
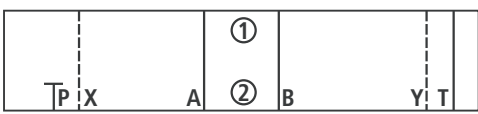
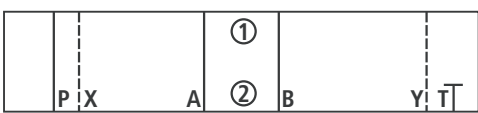
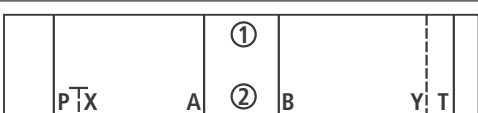
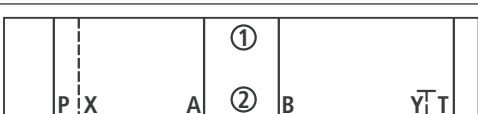
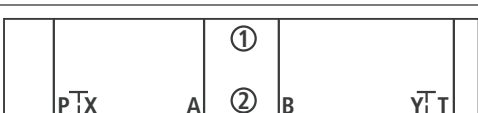
- **For circuits and versions other than those given in the data sheet, please consult us!**
- **Connection threads in HSZ plates are always closed with pressure-tight plugs.**

**Spacer plates without connection** (1) = component side, (2) = plate side)

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
Sandwich plate	HSZ 22 B007-3X/M00 R901005966		160 x 117 x 20 2.7 kg	R901005941 Thread M12 x 1.5 provided in channels X and Y
Sandwich plate	HSZ 22 B004-3X/M00 R900907504		160 x 117 x 50 6.8 kg	R900267861

### Spacer plates without port, with blocked system drilling

(1) = component side, (2) = plate side)

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
Sandwich plate	HSZ 22 B452-3X/ A00M00 R900785382		160 x 117 x 20 2.7 kg	R900785370
Sandwich plate	HSZ 22 B452-3X/ B00M00 R900785411		160 x 117 x 20 2.7 kg	R900785370
Sandwich plate	HSZ 22 B452-3X/ P00M00 R900785418		160 x 117 x 20 2.7 kg	R900785370
Sandwich plate	HSZ 22 B452-3X/ T00M00 R900785417		160 x 117 x 20 2.7 kg	R900785370
Sandwich plate	HSZ 22 B452-3X/ X00M00 R900785419		160 x 117 x 20 2.7 kg	R900785370
Sandwich plate	HSZ 22 B452-3X/ Y00M00 R900785420		160 x 117 x 20 2.7 kg	R900785370
Sandwich plate	HSZ 22 B452-3X/ X00Y00M00 R900785421		160 x 117 x 20 2.7 kg	R900785370

**Spacer plates with port** (① = component side, ② = plate side)

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
Sandwich plate	HSZ 22 B036-3X/M01 R900901980		160 x 117 x 40 5.4 kg Side E   Side F A, T, X   B, P, Y G1/4   G1/4	R900266840
Sandwich plate	HSZ 22 B021-3X/M01 R900900605		170 x 117 x 80 11.6 kg Side F P G1 1/2	R900266623
Sandwich plate	HSZ 22 B065-3X/M01 R900547682		170 x 117 x 80 11.5 kg Side E   Side F T   P G1 1/2   G1 1/2	R900255851
Sandwich plate	HSZ 22 B048-3X/M01 R900533129		170 x 117 x 80 11.5 kg Side E   Side F A   B G1 1/2   G1 1/2	R900265145

**Spacer plates with connections** (① = component side, ② = plate side)

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
Sandwich plate	HSZ 22 B061-3X/M00 R900910922		160 x 117 x 110 15.0 kg	R900268465

## Function group, isolating function

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Example: HSZ 22 B  – 3X/

### Supplementary details on sandwich plates with integrated isolating function (complete units):

11 <input type="text"/>	<b>Cracking pressure</b> of check valve type M-SR20..., M-SR25..., M-SR30... (cartridge)	0.5 bar	= 05
12.1 <input type="text"/>	<b>Cracking pressure</b> of check valve type Z1S22...: (cartridge/sandwich plate)	Cracking pressure 0.5 bar Cracking pressure 3.0 bar Cracking pressure 5.0 bar	= 1 = 2 = 3
13 <input type="text"/>	<b>Cracking pressure</b> of check valve type Z2S22...: (pilot operated)	Cracking pressure 3.0 bar Cracking pressure 5.0 bar Cracking pressure 7.5 bar Cracking pressure 10.0 bar	= 1 = 2 = 3 = 4
14 <input type="text"/>	<b>Type of seals:</b> (other seals on enquiry)	NBR seals FKM seals	= No code = V

**Note: Observe compatibility of seals with hydraulic fluid used!**

**Check valves** (1) = component side, (2) = plate side)

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
Sandwich plate	Z1S 22 P <sup>12.1</sup> <input type="text"/> -1X/ <sup>14</sup> <input type="text"/>		155 x 115 x 55 6.4 kg	R900263207
Complete type designation according to page 6.				
Sandwich plate	Z1S 22 C <sup>12.1</sup> <input type="text"/> -1X/ <sup>14</sup> <input type="text"/>		155 x 115 x 55 6.4 kg	R900263207
Complete type designation according to page 6.				
Sandwich plate	Z1S 22 T <sup>12.1</sup> <input type="text"/> -1X/ <sup>14</sup> <input type="text"/>		155 x 115 x 55 6.4 kg	R900263207
Complete type designation according to page 6.				
Sandwich plate	Z1S 22 D <sup>12.1</sup> <input type="text"/> -1X/ <sup>14</sup> <input type="text"/>		155 x 115 x 55 6.4 kg	R900263207
Complete type designation according to page 6.				

Order example of complete unit: Z1S 22 P<sup>12.1</sup>-1X/<sup>14</sup>

**Check valves** (1) = component side, (2) = plate side)

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<b>Sandwich plate</b>  <b>Sandwich plate fitted with:</b> Check valve (cartridge)	<b>HSZ 22 B184-3X/05M00</b> <b>R900724088</b>  <b>M-SR 25 KE05-1X/□</b> <sup>14</sup>		290 x 117 x 140 34.4 kg	R900724546  RE 20380
<b>Sandwich plate</b>  <b>Sandwich plate fitted with:</b> Check valve (cartridge)	<b>HSZ 22 B187-3X/05M00</b> <b>R900902917</b>  <b>M-SR 25 KE05-1X/□</b> <sup>14</sup>		225 x 117 x 140 26.7 kg	R900263130  RE 20380
<b>Sandwich plate</b>  <b>Sandwich plate fitted with:</b> Check valve (cartridge)	<b>HSZ 22 B330-3X/05-<sup>51</sup></b> <b>D □ M00</b>  <b>M-SR 25 KE05-1X/□</b> <sup>14</sup> <b>DUESE □ M8x1-DIN906</b> <sup>51</sup> For material no., see page 24		225 x 117 x 140 26.7 kg	R900263129  RE 20380 RN 115.06
<b>Sandwich plate</b>  <b>Sandwich plate fitted with:</b> Check valve (cartridge)	<b>HSZ 22 B200-3X/05M00</b> <b>R901010313</b>  <b>M-SR 20 KE05-1X/□</b> <sup>14</sup>		210 x 117 x 80 14.2 kg	R900266409  RE 20380
<b>Sandwich plate</b>  <b>Sandwich plate fitted with:</b> Check valve (cartridge)	<b>HSZ 22 B181-3X/05M01</b> <b>R900959272</b>  <b>M-SR 30 KE05-1X/□</b> <sup>14</sup>		240 x 117 x 120 24.4 kg  Side F P G1	R900277608  RE 20380

**Order example**

 of complete unit: **HSZ 22 B200-3X/**<sup>11</sup>**05**<sup>2</sup>**M**<sup>3</sup>**00**

 of complete unit: **HSZ 22 B330-3X/**<sup>11</sup>**05**<sup>51</sup>**-D**<sup>2</sup>**08**<sup>3</sup>**M****00**
**Complete type designation according to page 6.**



**Check valves, pilot operated** (① = component side, ② = plate side)

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
Sandwich plate	Z2S 22 A <sup>13</sup> □-5X/ <sup>14</sup> □ SO40		210 x 117 x 100 12 kg Side F X G1/4	RE 21564
Complete type designation according to page 6.				
Sandwich plate	Z2S 22 B <sup>13</sup> □-5X/ <sup>14</sup> □ SO40		210 x 117 x 100 12 kg Side E X G1/4	RE 21564
Complete type designation according to page 6.				
Sandwich plate	Z2S 22 A <sup>13</sup> □-5X/ <sup>14</sup> □ SO60		210 x 117 x 100 12 kg	RE 21564
Complete type designation according to page 6.				
Sandwich plate	Z2S 22 B <sup>13</sup> □-5X/ <sup>14</sup> □ SO60		210 x 117 x 100 12 kg	RE 21564
Complete type designation according to page 6.				
Sandwich plate	HSZ 22-31029-BA/ G24NK4M01 R900782835  Sandwich plate fitted with: Check valve, pilot operated 4/2 directional valve  SL 30 PA2-4X/  4WE 6 D6X/ EG24N9K4		230 x 140 x 210 67.3 kg Side A MA, MB, X G1/4	R900782917  RE 21468  RE 23178  SL valves on side E and F  Directional valve on side A  Thread M12 x 1.5 pro- vided in channel X
(Deviations require different type designation and material no.)				

## Function group, pressure function

Example: HSZ 22 B  <sup>1</sup> – 3X/  <sup>15</sup>  <sup>16</sup>  <sup>2</sup>  <sup>3</sup>

### Supplementary details for sandwich plates with integrated pressure function (complete units):

<b>14</b> <input type="text"/>	<b>Type of seal:</b> (other seals on enquiry)	NBR seals FKM seals	= No code = V	
<b>Note: Observe compatibility of seals with hydraulic fluid used!</b>				
<b>15</b> <input type="text"/>	<b>Adjustment element</b> on pressure relief valve type DBD.30...:	Set screw with hexagon and protective cap Rotary knob Lockable rotary knob	= S = H <sup>1)</sup> = A <sup>1)</sup>	1) Please observe installation dimensions!
<b>16</b> <input type="text"/>	<b>Pressure setting on</b> pressure relief valve type DBD.30...: <b>Note:</b> Code () for complete type!	up to 25 bar up to 50 bar up to 100 bar up to 200 bar up to 315 bar	= 25 (025) = 50 (050) = 100 = 200 = 315	
<b>37</b> <input type="text"/>	<b>Adjustment element</b> on pressure reducing valve type DR 20..., DR 30...:	Rotary knob Sleeve with hexagon and protec- tive cap Lockable rotary knob with scale Rotary knob with scale	= 4 = 5 = 6 = 7	
<b>38</b> <input type="text"/>	<b>Pressure setting on</b> pressure reducing valve type DR 20..., DR 30...: <b>Note:</b> Code () for complete type!	Secondary pressure up to 50 bar up to 100 bar up to 200 bar up to 315 bar	= 50 (050) = 100 = 200 = 315	
<b>40</b> <input type="text"/>	Check valve in pressure reducing valve type DR 20..., DR 30...:	with check valve without check valve	= No code = M	

**Pressure relief valves, direct operated (① = component side, ② = plate side)**

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<b>Sandwich plate</b>	HSZ 22 B100-3X/ <sup>15 16</sup> □□ M00		280 x 117 x 100 24.8 kg	R900266083
<b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated	<sup>15</sup> DBD□□ 30 K1X/ <sup>16 14</sup> □□			RE 25402 DBD on side E
<b>Sandwich plate</b>	HSZ 22 B106-3X/ <sup>15 16</sup> □□ M00		290 x 117 x 120 30.5 kg	R900264686
<b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated	<sup>15</sup> DBD□□ 30 K1X/ <sup>16 14</sup> □□			RE 25402 DBD on side E
<b>Sandwich plate</b>	HSZ 22 B107-3X/ <sup>15 16</sup> □□ M00		290 x 117 x 120 30.5 kg	R900264581
<b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated	<sup>15</sup> DBD□□ 30 K1X/ <sup>16 14</sup> □□			RE 25402 DBD on side E
<b>Sandwich plate</b>	HSZ 22 B139-3X/ <sup>15 16</sup> □□ M00		245 x 117 x 210 45.6 kg	R900278105
<b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated	<sup>15</sup> DBD□□ 30 K1X/ <sup>16 14</sup> □□		Side F T G1/4	RE 25402 2 x DBD on side E
<b>Sandwich plate</b>	HSZ 22 B105-3X/A <sup>15 16</sup> □□ -B□□M00		360 x 117 x 120 38.6 kg	R900265073
<b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated	<sup>15</sup> DBD□□ 30 K1X/ <sup>16 14</sup> □□			RE 25402 DBD on side E and F
<b>Sandwich plate</b>	HSZ 22 B108-3X/A <sup>15 16</sup> □□ -B□□M00		390 x 117 x 120 41.7 kg	R900266622
<b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated	<sup>15</sup> DBD□□ 30 K1X/ <sup>16 14</sup> □□			RE 25402 DBD on side E and F

**Order example**

 of complete unit with **two** pressure relief valves: HSZ 22 B105-3X/A<sup>15 16</sup><sub>S</sub><sup>15 16</sup><sub>200</sub>-B<sup>15 16</sup><sub>S</sub><sup>15 16</sup><sub>200</sub><sup>2 3</sup><sub>M</sub><sup>00</sup>

Complete type designation according to page 10.

protected channel

**Pressure reducing valves, pilot operated (DR valves size 20) (1) = component side, (2) = plate side)**

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<p><b>Sandwich plate</b></p> <p>Sandwich plate fitted with: Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B563-3X/ 37 38 □-□M01</p> <p>DR 20-□-5X/□YM□ 37 38 14</p>		<p>210 x 117 x 150 32.0 kg G1/4</p> <p>Side F P G1/4</p>	<p>R900265747</p> <p>RE 26892 DR on side E Port Y plugged pressure-tight</p>
<p><b>Sandwich plate</b></p> <p>Sandwich plate fitted with: Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B563-3X/ 37 38 □-□YM01</p> <p>DR 20-□-5X/□YM□ 37 38 14</p>		<p>210 x 117 x 150 32.0 kg G1/4</p> <p>Side F P, Y G1/4</p>	<p>R900265747</p> <p>RE 26892 DR on side E</p>
<p><b>Sandwich plate</b></p> <p>Sandwich plate fitted with: Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B573-3X/ 37 38 40 □-□□M01</p> <p>DR 20-□-5X/□Y□□ 37 38 40 14</p>		<p>210 x 117 x 150 32.0 kg G1/4</p> <p>Side F A G1/4</p>	<p>R900265840</p> <p>RE 26892 DR on side E Port Y plugged pressure-tight</p>
<p><b>Sandwich plate</b></p> <p>Sandwich plate fitted with: Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B573-3X/ 37 38 40 □-□Y□M01</p> <p>DR 20-□-5X/□Y□□ 37 38 40 14</p>		<p>210 x 117 x 150 32.0 kg G1/4</p> <p>Side F A, Y G1/4</p>	<p>R900265840</p> <p>RE 26892 DR on side E</p>
<p><b>Sandwich plate</b></p> <p>Sandwich plate fitted with: Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B574-3X/ 37 38 40 □-□□M01</p> <p>DR 20-□-5X/□Y□□ 37 38 40 14</p>		<p>210 x 117 x 150 32.0 kg G1/4</p> <p>Side E B G1/4</p>	<p>R900267524</p> <p>RE 26892 DR on side F Port Y plugged pressure-tight</p>

**Pressure reducing valves, pilot operated (DR valves size 20) (1) = component side, (2) = plate side)**

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<p><b>Sandwich plate</b></p> <p><b>Sandwich plate fitted with:</b></p> <p>Pressure reducing valve, pilot operated</p>	<p><b>HSZ 22 B574-3X/</b> 37 38 40 □-□Y□M01</p> <p><b>DR 20-□-5X/□Y□□</b> 37 38 40 14</p>		<p>210 x 117 x 150 32.0 kg</p> <p>Side E B, Y G1/4</p>	<p>R900267524</p> <p>RE 26892 DR on side F</p>
<p><b>Sandwich plate</b></p> <p><b>Sandwich plate fitted with:</b></p> <p>Pressure reducing valve, pilot operated</p>	<p><b>HSZ 22 B575-3X/A</b> 37 38 37 38 40 □-□-B□-□□M01</p> <p><b>DR 20-□-5X/□Y□□</b> 37 38 40 14</p>		<p>220 x 117 x 160 40.5 kg</p> <p>Side E   Side F A   B G1/4   G1/4</p>	<p>R900265841</p> <p>RE 26892 DR on side E and F Port Y plugged pressure-tight</p>
<p><b>Sandwich plate</b></p> <p><b>Sandwich plate fitted with:</b></p> <p>Pressure reducing valve, pilot operated</p>	<p><b>HSZ 22 B575-3X/A</b> 37 38 37 38 40 □-□-B□-□Y□M01</p> <p><b>DR 20-□-5X/□Y□□</b> 37 38 40 14</p>		<p>220 x 117 x 160 40.5 kg</p> <p>Side E   Side F A   B, Y G1/4   G1/4</p>	<p>R900265841</p> <p>RE 26892 DR on side E and F</p>

**Pressure reducing valves, pilot operated (DR valves size 30) (1 = component side, 2 = plate side)**

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of Ports	Dimensional sheet Further information
<p><b>Sandwich plate</b></p> <p><b>Sandwich plate fitted with:</b></p> <p>Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B558-3X/ 37 38 □-□M01</p> <p>DR 30-□-5X/□YM□ 37 38 14</p>		<p>200 x 120 x 151 34.3 kg</p> <p>Side E P G1/4</p>	<p>R900263198</p> <p>RE 26892 DR on side F Port Y plugged pressure-tight</p>
<p><b>Sandwich plate</b></p> <p><b>Sandwich plate fitted with:</b></p> <p>Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B558-3X/ 37 38 □-□YM01</p> <p>DR 30-□-5X/□YM□ 37 38 14</p>		<p>200 x 120 x 151 34.3 kg</p> <p>Side E P, Y G1/4</p>	<p>R900263198</p> <p>RE 26892 DR on side F</p>
<p><b>Sandwich plate</b></p> <p><b>Sandwich plate fitted with:</b></p> <p>Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B561-3X/ 37 38 40 □-□□M01</p> <p>DR 30-□-5X/□Y□□ 37 38 40 14</p>		<p>200 x 120 x 151 34.3 kg</p> <p>Side F A G1/4</p>	<p>R900263196</p> <p>RE 26892 DR on side E Port Y plugged pressure-tight</p>
<p><b>Sandwich plate</b></p> <p><b>Sandwich plate fitted with:</b></p> <p>Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B561-3X/ 37 38 40 □-□Y□M01</p> <p>DR 30-□-5X/□Y□□ 37 38 40 14</p>		<p>200 x 120 x 151 34.3 kg</p> <p>Side F A, Y G1/4</p>	<p>R900263196</p> <p>RE 26892 DR on side E</p>
<p><b>Sandwich plate</b></p> <p><b>Sandwich plate fitted with:</b></p> <p>Pressure reducing valve, pilot operated</p>	<p>HSZ 22 B571-3X/ 37 38 40 □-□□M01</p> <p>DR 30-□-5X/□Y□□ 37 38 40 14</p>		<p>200 x 120 x 151 34.3 kg</p> <p>Side E B G1/4</p>	<p>R900255781</p> <p>RE 26892 DR on side F Port Y plugged pressure-tight</p>

**Pressure reducing valves, pilot operated (DR valves size 30) (1) = component side, (2) = plate side)**

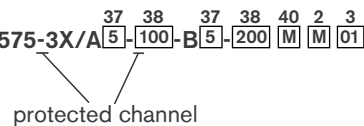
Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<b>Sandwich plate</b>	<b>HSZ 22 B571-3X/</b> 37 38 40 □-□Y□M01		200 x 120 x 151 34.3 kg	R900255781
<b>Sandwich plate fitted with:</b>  Pressure reducing valve, pilot operated	37 38 40 14 <b>DR 30-□-5X/□Y□□</b>		Side E B, Y G1/4	RE 26892 DR on side F
<b>Sandwich plate</b>	<b>HSZ 22 B560-3X/A</b> 37 38 37 38 40 □-□-B□-□□M01		240 x 120 x 190 55.7 kg	R900263197
<b>Sandwich plate fitted with:</b>  Pressure reducing valve, pilot operated	37 38 40 14 <b>DR 30-□-5X/□Y□□</b>		Side E   Side F A   B G1/4   G1/4	RE 26892 DR on side E and F Port Y plugged pressure-tight
<b>Sandwich plate</b>	<b>HSZ 22 B560-3X/A</b> 37 38 37 38 40 □-□-B□-□Y□M01		240 x 120 x 190 55,7 kg	R900263197
<b>Sandwich plate fitted with:</b>  Pressure reducing valve, pilot operated	37 38 40 14 <b>DR 30-□-5X/□Y□□</b>		Side E   Side F A   B, Y G1/4   G1/4	RE 26892 DR on side E and F

**Order example**

of complete unit with **one** pressure reducing valve: HSZ 22 B563-3X/[5]-[100]-[M]-[M]-[01]

of complete unit with **two** pressure reducing valves : HSZ 22 B575-3X/A[5]-[100]-B[5]-[200]-[M]-[M]-[01]

Complete type designation according to page 10.



## Function group, combined pressure and isolating function

Example of load lowering function: **HSZ 22 B** 1 - **3X/L** 39 45 2 3

### Supplementary details for sandwich plates with integrated pressure and isolating function (complete units):

<div style="text-align: center; margin-bottom: 5px;">15</div> <div style="border: 1px solid black; width: 30px; height: 25px; margin: 0 auto;"></div>	<p><b>Adjustment element</b> on pressure relief valve type DBD.20..., DBD.30...:</p>	<p>Set screw with hexagon and protective cap Rotary knob Lockable rotary knob</p>	<p>= S = H <sup>1)</sup> = A <sup>1)</sup></p>	<p><sup>1)</sup> Please observe installation dimensions!</p>
<div style="text-align: center; margin-bottom: 5px;">16</div> <div style="border: 1px solid black; width: 30px; height: 25px; margin: 0 auto;"></div>	<p><b>Pressure setting</b> on pressure relief valve type DBD.20..., DBD.30...: <b>Note:</b> Code () for complete type!</p>	<p>up to 25 bar up to 50 bar up to 100 bar up to 200 bar up to 315 bar</p>	<p>= 25 (025) = 50 (050) = 100 = 200 = 315</p>	
<div style="text-align: center; margin-bottom: 5px;">14</div> <div style="border: 1px solid black; width: 30px; height: 25px; margin: 0 auto;"></div>	<p><b>Type of seal:</b> (other seals on enquiry)</p>	<p>NBR seals FKM seals</p>	<p>= No code = V</p>	
<b>Note: Observe compatibility of seals with hydraulic fluid used!</b>				
<div style="text-align: center; margin-bottom: 5px;">44</div> <div style="border: 1px solid black; width: 30px; height: 25px; margin: 0 auto;"></div>	<p><b>Opening ratio</b> of load lowering valve:</p>	<p>Opening ratio 4.5 : 1 for systems with variable load conditions and structure-related fluctuations Opening ratio 10 : 1 for systems with relatively constant load (other opening ratios on enquiry)</p>	<p>= G (standard) = H</p>	
<div style="text-align: center; margin-bottom: 5px;">39</div> <div style="border: 1px solid black; width: 30px; height: 25px; margin: 0 auto;"></div>	<p><b>Adjustment range</b></p>	<p>70 to 175 bar (setting 140) 140 to 350 bar (setting 210)</p>	<p>= K = J</p>	
<div style="text-align: center; margin-bottom: 5px;">45</div> <div style="border: 1px solid black; width: 30px; height: 25px; margin: 0 auto;"></div>	<p><b>Opening ratio</b></p>	<p>4.5 : 1 10 : 1</p>	<p>= 4 = 10</p>	



**Counterbalance function** (1 = component side, 2 = plate side)

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<b>Sandwich plate</b>  <b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated Check valve (cartridge)	HSZ 22 B216-3X/ <input type="checkbox"/> <input type="checkbox"/> M01  DBD <input type="checkbox"/> 30 K1X/ <input type="checkbox"/> <input type="checkbox"/> M-SR 25 KE05-1X/ <input type="checkbox"/>		290 x 117 x 120 30.5 kg  Side E A G1/4	R900264618  RE 25402 DBD on side E  RE 20380
<b>Sandwich plate</b>  <b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated Check valve (cartridge)	HSZ 22 B218-3X/ <input type="checkbox"/> <input type="checkbox"/> M01  DBD <input type="checkbox"/> 30 K1X/ <input type="checkbox"/> <input type="checkbox"/> M-SR 25 KE05-1X/ <input type="checkbox"/>		290 x 117 x 120 30.5 kg  Side E B G1/4	R900264566  RE 25402 DBD on side F  RE 20380

Order example of complete unit: HSZ 22 B218-3X/<sup>15</sup><sup>16</sup><sup>2</sup><sup>3</sup>

<b>Sandwich plate</b>  <b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated Check valve (cartridge)	HSZ 22 B217-3X/ <sup>15</sup> <input type="checkbox"/> <sup>16</sup> <input type="checkbox"/> - <sup>15</sup> <input type="checkbox"/> <sup>16</sup> <input type="checkbox"/> M01  DBD <input type="checkbox"/> 30 K1X/ <input type="checkbox"/> <input type="checkbox"/> M-SR 25 KE05-1X/ <input type="checkbox"/>		400 x 117 x 140 49.5 kg  Side E A G1/4  Side F B G1/4	R900239395  RE 25402 DBD on side E and F  RE 20380
--	---	--	--	---

Order example of complete unit: HSZ 22 B217-3X/A<sup>15</sup><sup>16</sup>-B<sup>15</sup><sup>16</sup><sup>2</sup><sup>3</sup>

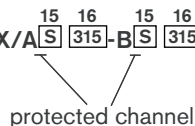
protected channel

Complete type designation according to page 16.

**Pressure relief/anti-cavitation function** (1) = component side, (2) = plate side

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<b>Sandwich plate</b>  Sandwich plate fitted with: Pressure relief valve, direct operated Check valve (cartridge)	HSZ 22 B214-3X/ 15 16 15 16 A□ □-B□ □M01  DBD□ 20 K1X/□ □  M-SR 25 KE05-1X/□		345 x 117 x 140 42.0 kg  Side E   Side F A   B G1/4   G1/4	R900276537  RE 25402 DBD on side E and F  RE 20380
<b>Sandwich plate</b>  Sandwich plate fitted with: Pressure relief valve, direct operated Check valve (cartridge)	HSZ 22 B590-3X/ 15 16 15 16 A□ □-B□ □M01  DBD□ 30 K1X/□ □  M-SR 30 KE05-1X/□		325 x 117 x 240 68.0 kg  Side E   Side F A   B G1/4   G1/4	R900273785  RE 25402 DBD on side E and F  RE 20380
<b>Sandwich plate</b>  Sandwich plate fitted with: Pressure relief valve, direct operated Check valve (cartridge)	HSZ 22 B207-3X/ 15 16 15 16 A□ □-B□ □M00  DBD□ 20 K1X/□ □  M-SR 20 KE05-1X/□		240 x 117 x 130 27.5 kg	R900262897  RE 25402 DBD on side E and F  RE 20380
<b>Sandwich plate</b>  Sandwich plate fitted with: Pressure relief valve, direct operated Check valve (cartridge)	HSZ 22 B582-3X/ 15 16 15 16 A□ □-B□ □M00  DBD□ 30 K1X/□ □  M-SR 20 KE05-1X/□		390 x 117 x 160 54.0 kg	R900270358  RE 25402 DBD on side E and F  RE 20380

Order example of complete unit: HSZ 22 B214-3X/A<sup>15</sup><sub>S</sub><sup>16</sup><sub>315</sub>-B<sup>15</sup><sub>S</sub><sup>16</sup><sub>315</sub><sup>2</sup><sub>M</sub><sup>3</sup><sub>01</sub>



Complete type designation according to page 16.

**Pressure relief/anti-cavitation function (① = component side, ② = plate side)**

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<b>Sandwich plate</b>  <b>Sandwich plate fitted with:</b> Pressure relief valve, direct operated Check valve (cartridge)	<b>HSZ 22 B222-3X/</b> <sup>15</sup> <sup>16</sup> <input type="checkbox"/> <input type="checkbox"/> M01  <sup>15</sup> <sup>16</sup> <sup>14</sup> <b>DBD</b> <input type="checkbox"/> <input type="checkbox"/> 30 K1X/ <input type="checkbox"/> <input type="checkbox"/>  <sup>14</sup> <b>M-SR 30 KE05-1X/</b> <input type="checkbox"/>		300 x 120 x 180 46.0 kg  Side E   Side F A   B G1/4   G1/4	R901007254  RE 25402 DBD on side E  RE 20380

Order example of complete unit: **HSZ 22 B222-3X/**<sup>15</sup><sup>16</sup><sup>2</sup><sup>3</sup>

Complete type designation according to page 16.



**Throttling functions** (1) = component side, (2) = plate side

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<b>Sandwich plate</b>  Sandwich plate fitted with DUESE <input type="checkbox"/> R1/2-DIN906 For material no., see page 24	HSZ 22 B085-3X/ 54 A <input type="checkbox"/> M00		160 x 117 x 20 2.7 kg	R900786367  RN 115.06
<b>Sandwich plate</b>  Sandwich plate fitted with DUESE <input type="checkbox"/> R1/2-DIN906 For material no., see page 24	HSZ 22 B085-3X/ 54 B <input type="checkbox"/> M00		160 x 117 x 20 2.7 kg	R900786367  RN 115.06
<b>Sandwich plate</b>  Sandwich plate fitted with DUESE <input type="checkbox"/> R1/2-DIN906 For material no., see page 24	HSZ 22 B085-3X/ 54 P <input type="checkbox"/> M00		160 x 117 x 20 2.7 kg	R900786367  RN 115.06
<b>Sandwich plate</b>  Sandwich plate fitted with DUESE <input type="checkbox"/> R1/2-DIN906 For material no., see page 24	HSZ 22 B085-3X/ 54 T <input type="checkbox"/> M00		160 x 117 x 20 2.7 kg	R900786367  RN 115.06

**Order example**

of complete unit with 0.8 mm orifice in channel A: **HSZ 22 B085-3X/A** <sup>54</sup> <sub>08</sub> <sup>2</sup> <sub>M</sub> <sup>3</sup> <sub>00</sub>

**Logic functions** (1) = component side, (2) = plate side

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<p><b>Sandwich plate</b></p> <p><b>HSZ 22-26679-AC/ G24N9K4M01 R900723039</b></p> <p>Sandwich plate fitted with:  <b>LC 25 A40D7X/-004</b>  <b>LFA 25 D19-7X/</b>  <b>LFA 25 GWA-7X/A10P10T10</b>  <b>M-3SED 6 UK1X/350CG24N9K4</b>                      (Deviations require different type designation and material no.)</p>			<p>260 x 117 x 150 45 kg</p> <p>Side C MA, MB G1/4</p>	<p>R900723913</p> <p>RE 21010 RE 21010 RE 21010 RE 22049</p> <p>Logics on side E and F Pilot oil from X-channel Drain oil in Y-channel</p>
<p><b>Sandwich plate</b></p> <p><b>HSZ 22-26733-AA/ G24N9K4M01 R900957409</b></p> <p>Sandwich plate fitted with:  <b>LC 32 A20E7X/</b>  <b>LFA 32 WEA-7X/A10</b>  <b>4WE 6 D6X/EG24N9K4</b>                      (Deviations require different type designation and material no.)</p>			<p>240 x 117 x 160 38 kg</p> <p>Side F P G1/4</p>	<p>R900277281</p> <p>RE 21010 RE 21010 RE 23178</p> <p>Logic on side F</p>
<p><b>Sandwich plate</b></p> <p><b>HSZ 22-26764-AA/ HM00 R900970000</b></p> <p>Sandwich plate fitted with:  <b>LC 32 DB20D7X/</b>  <b>LFA 32 DB2-7X/315</b>                      (Deviations require different type designation and material no.)</p>			<p>280 x 130 x 180 55 kg</p>	<p>R900279564</p> <p>RE 21050 RE 21050</p> <p>Logics on side E and F</p>

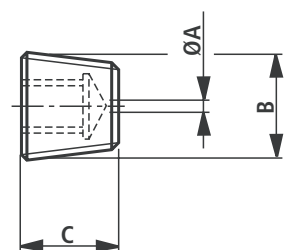
**Logic functions** (1) = component side, (2) = plate side

Component designation	Type designation Material no.	Symbol	Plate L x W x H Weight Size of ports	Dimensional sheet Further information
<p><b>Sandwich plate</b></p> <p><b>HSZ 22-26779-AA/ G24N9K4M00 R900973219</b></p> <p>Sandwich plate fitted with:  <b>LC 32 A10D7X/ LFA 32 WEA-7X/A10P10 M-3SEW 6 C3X/420MG24N9K4 M-SR 25 KE05-1X/</b>                      (Deviations require different type designation and material no.)</p>			<p>270 x 130 x 150 43.3 kg</p>	<p>R900239440</p> <p>RE 21010 RE 21010 RE 22058 RE 20380 Logics on side E</p>
<p><b>Sandwich plate</b></p> <p><b>HSZ 22-26531-CA/ HM01 R900617404</b></p> <p>Sandwich plate fitted with:  <b>LC 32 DB40E7X/ LFA 32 DR2-7X/210 M-SR 8 KE05-1X/</b>                      (Deviations require different type designation and material no.)</p>			<p>245 x 130 x 160 37.5 kg</p> <p>Side E MP G1/4</p>	<p>R900617406</p> <p>RE 21050 RE 21050 RE 20380 Logic on side F</p>

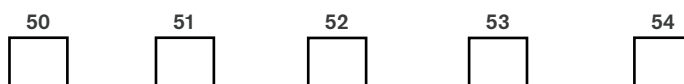
## Orifices, seals

Form 7 (RN 115.06)

Plug screw to DIN 906



**Note:**  
Code () for complete type.



B	M6	M8 x 1	R1/8	R3/8	R1/2
C	6	8	8	10	10
ØA	Material no.				
<b>0.6 (06)</b>	R900157934	R900149430	R900159145	–	–
<b>0.7 (07)</b>	R900157931	R900143957	–	–	–
<b>0.8 (08)</b>	R900152276	R900136843	R900144212	R900159043	R900691565
<b>0.9 (09)</b>	R900695625	R900643104	–	–	–
<b>1.0 (10)</b>	R900149335	R900136842	R900135607	R900159033	R900139115
<b>1.1 (11)</b>	R900645667	R900144763	–	–	–
<b>1.2 (12)</b>	R900152286	R900139101	R900146270	R900159032	R900150714
<b>1.3 (13)</b>	R900152291	R900144762	R900891295	R900163839	–
<b>1.4 (14)</b>	R900171199	R900158791	R900135606	–	–
<b>1.5 (15)</b>	R900148823	R900133712	R900144910	R900159031	R900139117
<b>1.8 (18)</b>	R900157932	R900150953	R900142840	R9001590301	R900159026
<b>2.0 (20)</b>	R900156650	R900137299	R900155897	R900159029	R900148352
<b>2.5 (25)</b>	R900157929	R900137445	R900148351	R900146259	R900148353
<b>3.0 (30)</b>	R900181894	R900144761	R900111282	R900149044	R900148361
<b>3.5 (35)</b>	–	–	–	R900146258	–
<b>4.0 (40)</b>	–	–	–	R900149052	R900644450
<b>4.5 (45)</b>	–	–	–	–	R900635896
<b>5.0 (50)</b>	–	–	–	R900152287	R900143775
<b>6.0 (60)</b>	–	–	–	R900135774	R900147875
<b>6.5 (65)</b>	–	–	–	–	R900173555
<b>7.0 (70)</b>	–	–	–	R900152289	–
<b>7.5 (75)</b>	–	–	–	R900137643	–
<b>8.0 (80)</b>	–	–	–	R900626397	R900159028
<b>10.0 (100)</b>	–	–	–	–	R900626653

## Seal kit – plate:

Seal material	Material no.
NBR	R900853079
FKM	R901010970

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