

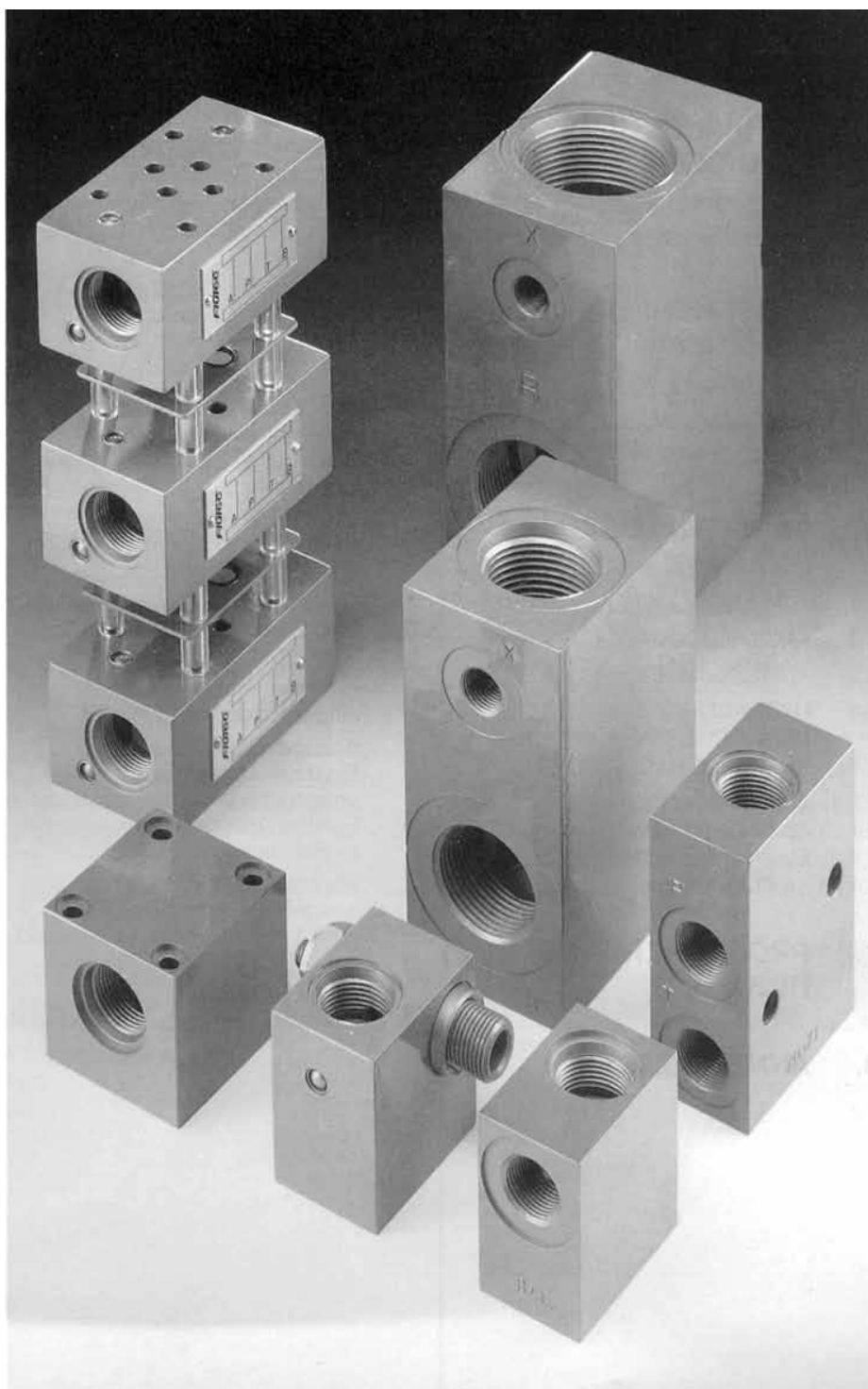
**SIDEX**

**HYDAC**

**INTERNATIONAL**

## Connection Housings for Cartridge Valves

Standard Inline Bodies  
Sandwich Bodies  
Subplate Bodies



E 5.252.6/01.13

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### 1. DESCRIPTION

#### 1.1. GENERAL

The wide range of HYDAC valve connection housings provides highly flexible solutions to oil hydraulic control functions.

Different valve functions in the same housing are possible by having standardised threaded ports for cartridge valves of the same size and interface.

The user therefore has a wide range of housings available. Depending on the control function required, pressure control, flow control, shut off, directional and special valves are used.

The following types are available as standard:

- standard inline body ISO/metric, see point 4
- standard inline body UNF, see point 5
- sandwich body with standard interface, see point 6
- subplate body with standard interface, see point 7

#### 1.2. RECOMMENDATIONS

To ensure correct and safe operation the following points must be taken into account:

- installation dimensions of cartridge valve and housing must correspond
- port configuration of cartridge valve and housing must correspond
- connection according to valve function used
- torque of cartridge valve in accordance with technical details in the corresponding valve literature - the wrong torque can cause malfunctions
- connection threads are largely to DIN 3852, page 1 or 2, form X
- interfaces to DIN 24340 and Cetop R 35  
Installation height to Cetop RP99H

### 2. TECHNICAL SPECIFICATIONS

#### 2.1. GENERAL

Hydraulic and technical details as per relevant valve literature.

#### 2.1.1 **Type of construction**

Standard inline body  
ISO/metric  
Type R ...  
Type A ...  
Type X ...  
Standard inline body UNF  
**Type FH ...**  
Sandwich body  
**Type Z ...**  
Subplate body  
**Type D ...**

#### 2.1.2 **Type of mounting**

Depending on the housing type, with pipes, through-holes or tie rods.

#### 2.1.3 **Installation**

Please note restrictions regarding cartridge valves.

Ensure correct installation of sandwich and subplate bodies.

#### 2.1.4 **Weights**

See points 4 - 7.

#### 2.1.5 **Materials**

Free-cutting steel  
For sandwich body type ZAB08021-02X, aluminium  
For UNF standard inline bodies, free-cutting steel and aluminium

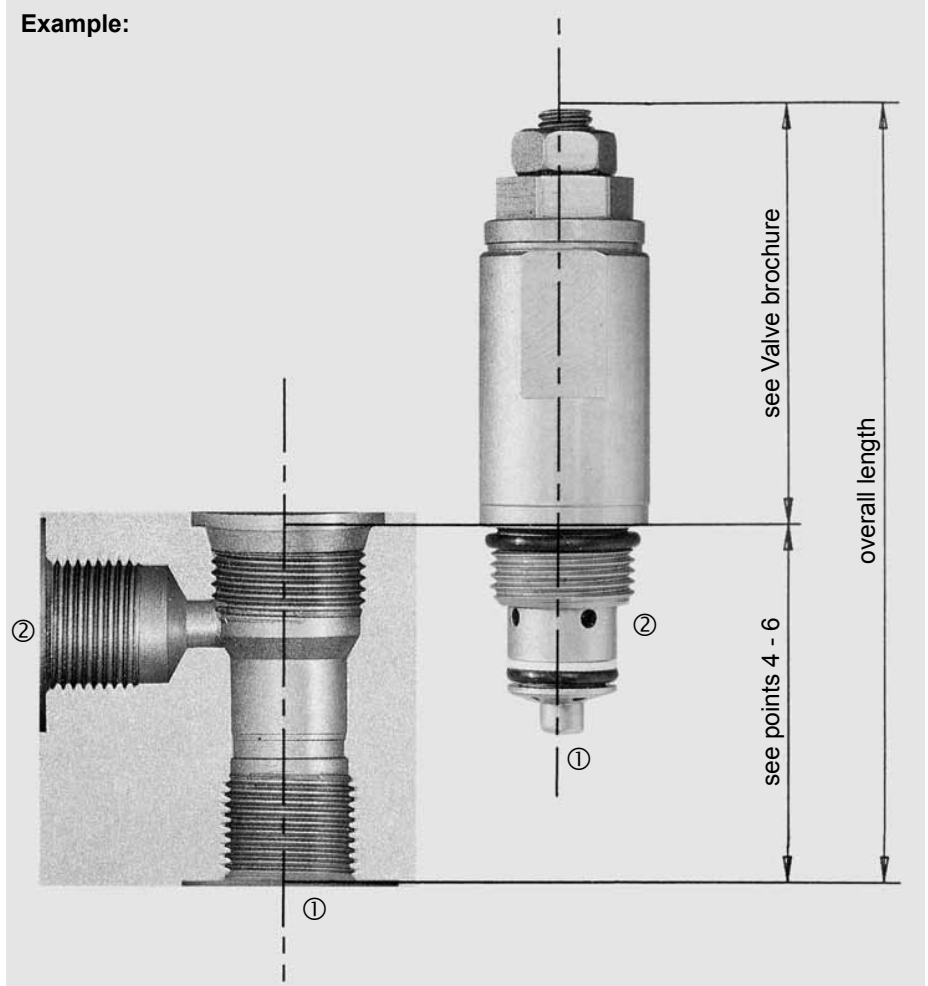
#### 2.1.6 **Surface treatment**

Standard inline body  
ISO/metric  
Type R...  
Type A...  
Type X...  
Zinc-plated and yellow-chromed coating EN 12329-Fe//Zn5-8//C/T4  
Standard inline body  
Type FH ...  
Zinc-plated and blue-chromed coating EN 12329-Fe//Zn5-8//B/T4  
Sandwich body  
Type Z...  
Phosphate-plated coating EN 12476-Fe//Znph/r/3/T4  
(not for type ZAB08021-02X)  
Subplate body  
Type D...  
Phosphate-plated coating EN 12476-Fe//Znph/r/3/T4

## 3. DIMENSIONS

### 3.1. GENERAL

In order to determine the overall dimensions (valve and housing) please refer to the appropriate valve brochures.



## 4. STANDARD LINE BODIES ISO/metric

### 4.1. MODEL CODE

R 06020 - 01 X - 01

**R:** Standard inline body  
**A:** Cylinder connection housing  
**X:** Internal valve housing

**Cartridge valve cavity**  
 see valve brochure

**Type**  
 (describes individual condition;  
 e. g. surface, dimensions,  
 functional properties ...)

**Series**  
 (determined by manufacturer)

**Housing connection thread**  
 see point 4.2

## 4.2. DIMENSIONS

Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
277440	<b>R03230-01X-01</b>	① G 1/4 ② G 1/4 ③ G 1/4	<p>Weight: 0.67 kg</p>	WSE 3	5.203
275266	<b>R06020-01X-01</b>	① G 3/8 ② G 3/8	<p>Weight: 0.45 kg</p>	DB4E	5.161
				DSR5E	393400
				DZ5E	5.166
				PDB 06020	5.164
				DV5E	5.113
				SR5E	5.117
276842	<b>R06020-10X-01</b>	① G 3/8 ② G 3/8	<p>Weight: 0.44 kg</p>	RV5E	5.175
				WSM06020Z	5.943
				WSM06020ZR	5.946
				WSM06020Y	5.947
				WSM06020YR	5.948
				WSM06020W	5.949
275033	<b>R08021-01X-01</b> Plug Port 3 when using ERVM-G1/2	① G 3/8 ② G 3/8 ③ G 1/4	<p>Weight: 0.77 kg</p>	WSM06020V	
				ERVE-R 1/2	5.172
				SBVE-R 1/2	5.177
				RPR08021-01	396487
283841	<b>R08021-10X-01</b> Plug Port 3 when using ERVM-G1/2	① G 3/8 ② G 3/8 ③ G 1/4	<p>Weight: 0.76 kg</p>	ERVE-R 1/2	5.172
				SBVE-R 1/2	5.177
				RPR08021-01	396487
				ERVM-G1/2	283843

Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
283025	<b>R08030-01X-01</b>	① G 3/8 ② G 3/8 ③ G 3/8	<p style="text-align: right;">Weight: 0.74 kg</p>	DMVE-G 1/2	5.162
394488	<b>R08130-01X-01</b>	① G 3/8 ② G 3/8 ③ G 3/8	<p style="text-align: right;">Weight: 0.70 kg</p>	PDM08130 WSEC08130 WSED08130 WKM08130C WKM08130D WKM08130L WSM08130D	5.168 5.935 5.934 5.976 5.977
394378	<b>R08130-01X-02</b>	① M 14x1.5 ② M 14x1.5 ③ M 14x1.5	<p style="text-align: right;">Weight: 0.70 kg</p>		
394473	<b>R08140-01X-01</b>	① G 3/8 ② G 3/8 ③ G 3/8 ④ G 3/8	<p style="text-align: right;">Weight: 0.86 kg</p>	WKM08140Y WKM08140X WKM08140A WKM08140Z WKM08140K WKM08140P WKM08140EB	5.942 5.985
393535	<b>R08140-01X-02</b>	① M 14x1.5 ② M 14x1.5 ③ M 14x1.5 ④ M 14x1.5	<p style="text-align: right;">Weight: 0.86 kg</p>		5.981
395232	<b>R10120A-01X-01</b>	① G 1/2 ② G 1/2	<p style="text-align: right;">Weight: 1.04 kg</p>	DB10120A DB10-13X PDBM10120AP	5.167 3122049 5.978
395233	<b>R10120A-01X-02</b>	① M 22x1.5 ② M 22x1.5	<p style="text-align: right;">Weight: 1.04 kg</p>		

Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
395234	<b>R10120-01X-01</b>	① G 1/2 ② G 1/2		RV10120	5.179
				SD10120	5.114
				WSE10120	5.206
				RVM10120	
395235	<b>R10120-01X-02</b>	① M 22x1.5 ② M 22x1.5			
			Weight: 1.04 kg		
395236	<b>R10121-01X-01</b>	① G 1/2 ② G 1/2 ③ G 1/4		RP 10121	284115
				RPL 10121	395294
395237	<b>R10121-01X-02</b>	① M 22x1.5 ② M 22x1.5 ③ M 14x1.5			
			Weight: 1.45 kg		
395238	<b>R10130-01X-01</b>	① G 1/2 ② G 1/2 ③ G 1/2		DM 10130	284475
				SRA10130	284857
				PDM10130	
				WKM10130C	
				WKM10130D	
				WKM10130L	
395239	<b>R10130-01X-02</b>	① M 22x1.5 ② M 22x1.5 ③ M 22x1.5			
			Weight: 1.48 kg		

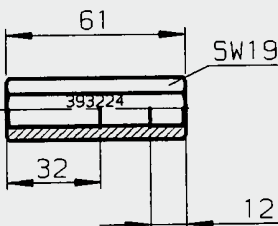
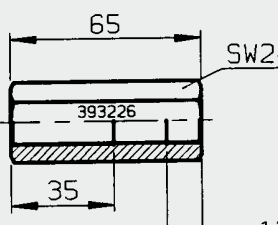
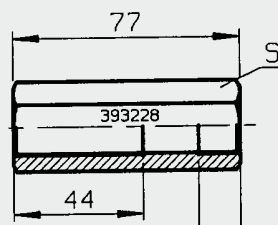
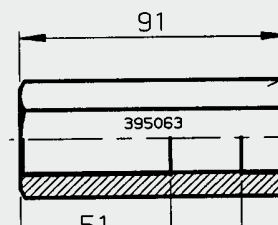
Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
396489	R12120A-01X-01	① G 3/4 ② G 3/4		DB 12120 A	5.169
396708	R12120-10X-01	① G 3/4 ② G 3/4		WSM12120	396324
396707	R12120-10X-02	① M 27x2 ② M 27x2			
3130704	R12121-01X-01	① G 3/4 ② G 3/4 ③ G 3/8		DB12121PE	5.996
				DB12121PF	5.997
				PDB12121PE	
				PDB12121PF	

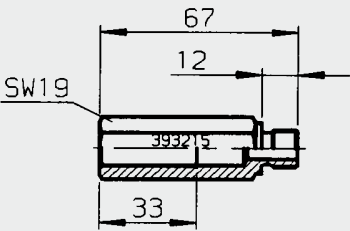
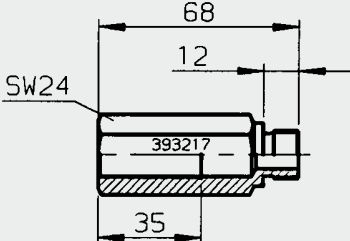
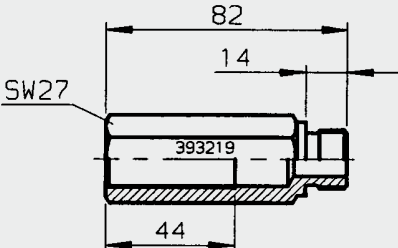
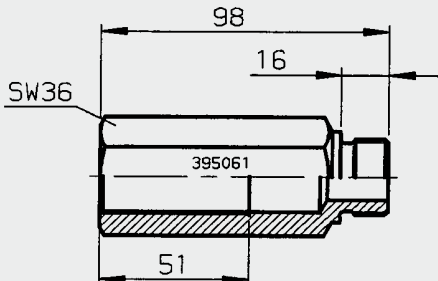
Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
560705	<b>R12230-01X-01</b>	① G 1/2 ② G 3/4 ③ G 1/2	<p>t=45 Weight: 2.40 kg</p>	ST12230	560637
277051	<b>R16021-01X-01</b>	① G 1 ② G 1 ③ G 1/4	<p>t=50 Weight: 2.52 kg</p>	ERVE16021	5.172
				SBVE-R1	5.177
275276	<b>R20021-01X-01</b>	① G 1 1/4 ② G 1 1/4 ③ G 1/4	<p>t=60 Weight: 4.60 kg</p>	ERVE-20021	5.172



Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
562795	<b>A06020-04X-01</b>	① G 3/8 ② G 3/8	<p style="text-align: right;">Weight: 0.56 kg</p>	WSM06020Z	5.943
				WSM06020ZR	5.946
				WSM06020Y	5.947
				WSM06020YR	5.948
				WSM06020W	5.949
				WSM06020V	
396774	<b>A06020-14X-01</b>	① G 1/2 ② G 1/2	<p style="text-align: right;">Weight: 0.92 kg</p>	WSM06020Z	5.943
				WSM06020ZR	5.946
				WSM06020Y	5.947
				WSM06020YR	5.948
				WSM06020W	5.949
				WSM06020V	

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Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
393224	<b>XX05520-01X</b>	G 1/4		SRE 1	5.118
				RBE-R 1/4	5.174
	on request	M 14x1.5			
				Weight: 0.09 kg	
393226	<b>XX08520-01X</b>	G 3/8		SRE 2	5.118
				RBE-R 3/8	5.174
	on request	M 18x1.5			
				Weight: 0.15 kg	
393228	<b>XX10520-01X</b>	G 1/2		SRE 3	5.118
				RBE-R 1/2	5.174
	on request	M 22x1.5			
				Weight: 0.19 kg	
395063	<b>XX12520-01X</b>	G 3/4		SRE 4	5.118
				RBE-R 3/4	5.174
	on request	M 27x2			
				Weight: 0.44 kg	

Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
393215	<b>XB05520-01X</b>	G 1/4		SRE 1	5.118
				RBE-R 1/4	5.174
	on request	M 14x1.5			
				Weight: 0.09 kg	
393217	<b>XB08520-01X</b>	G 3/8		SRE 2	5.118
				RBE-R 3/8	5.174
	on request	M 18x1.5			
				Weight: 0.14 kg	
393219	<b>XB10520-01X</b>	G 1/2		SRE 3	5.118
				RBE-R 1/2	5.174
	on request	M 22x1.5			
				Weight: 0.20 kg	
395061	<b>XB12520-01X</b>	G 3/4		SRE 4	5.118
				RBE-R 3/4	5.174
	on request	M 27x2			
				Weight: 0.43 kg	

## 5. STANDARD INLINE BODY UNF

### 5.1. MODEL CODE

**FH 082 - S - S6**

**Standard inline body** \_\_\_\_\_

**Cartridge valve cavity** \_\_\_\_\_  
see valve brochure

**Housing material** \_\_\_\_\_

S = free-cutting steel  
A = aluminium

**Housing connection thread** \_\_\_\_\_

S6 = SAE 6	N3 = 3/8" NPTF	B3 = 3/8" BSP
S8 = SAE 8	N4 = 1/2" NPTF	B4 = 1/2" BSP
S12 = SAE 12	N8 = 1" NPTF	B6 = 3/4" BSP
S16 = SAE16		B8 = 1" BSP

Others on request

## 5.2. DIMENSIONS

Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
3067477	<b>FH0812-AB3</b>	① 3/8"BSP	<p>Weight: Al: 0.15 kg St: 0.42 kg</p>	WKM081W-01	5.956
3067468	<b>FH0812-SB3</b>	② 3/8"BSP		WS081Z-01	5.980
3067619	<b>FH0812-AN3</b>	① 3/8"NPTF		WS081ZR-01	5.979
3067472	<b>FH0812-SN3</b>	② 3/8"NPTF		WS081Y-01	5.987
3067518	<b>FH0812-AS6</b>	① SAE6		WS081YR-01	5.986
3076471	<b>FH0812-SS6</b>	② SAE6			
3011423	<b>FH082-AB3</b>	① 3/8"BSP	<p>Weight: Al: 0.15 kg St: 0.42 kg</p>	WS08ZR-01J	5.984
560919	<b>FH082-SB3</b>	② 3/8"BSP		DB08A	5.922
3011411	<b>FH082-AN3</b>	① 3/8"NPTF		DB08P	5.922.1
560918	<b>FH082-SN3</b>	② 3/8"NPTF		RV08A	5.912
3011409	<b>FH082-AS6</b>	① SAE6		SD08-01	5.928
560917	<b>FH082-SS6</b>	② SAE6		SR08-01	5.930
				WS08Z-01	5.907
			WS08ZR-01	5.911	
			WS08Y-01	5.917	
			WS08YR-01	5.908	
			WS08W-01	5.924	
			WK08W-01	5.925	
			WK08V-01	5.918	
			WS08WM-01		
			WS08WL-01		
			WS08Z-01J	5.983	
			PDB08P-01	5.991.1	
			WS08Z-30	5.993	
			WS08Y-30	5.992	
			WS08W-30	5.994	
3011427	<b>FH083-AB3</b>	① 3/8"BSP	<p>Weight: Al: 0.25 kg St: 0.70 kg</p>	DR08-01	5.920
560922	<b>FH083-SB3</b>	② 3/8"BSP		RP08A	5.923
3011425	<b>FH083-AN3</b>	① 3/8"NPTF		RS08-01	5.933
				SRP08-01	5.929
560921	<b>FH083-SN3</b>	③ 3/8"NPTF		WK08L-01	5.913
3011424	<b>FH083-AS6</b>	① SAE6		WK08C-01	5.906
				② SAE6	WK08D-01
560920	<b>FH083-SS6</b>	③ SAE6		WS08D-01	
3116230	<b>FH083-SM14F</b>	① M14x1.5		DR08P-01	5.920.1
				② M14x1.5	PDR08P-01
			③ M14x1.5	PDR08-01	
				PDR08-10	
			PDR08-20		
3011407	<b>FH084-AB3</b>	① 3/8"BSP	<p>Weight: Al: 0.31 kg St: 0.86 kg</p>	WK08Y-01	5.905
563383	<b>FH084-SB3</b>	② 3/8"BSP		WK08X-01	5.919
3011406	<b>FH084-AN3</b>	① 3/8"NPTF		WK08A-01	5.910
				② 3/8"NPTF	WK08Z-01
563382	<b>FH084-SN3</b>	③ 3/8"NPTF		WK08K-01	5.904
3011404	<b>FH084-AS6</b>	① SAE6		WK08P-01	5.909
563381	<b>FH084-SS6</b>	③ SAE6			
		④ SAE6			

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Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
3037777	<b>FH102-AB4</b>	① 1/2"BSP	<p>Weight: Al: 0.20 kg St: 0.54 kg</p>	DP10P-01	5.954
3037594	<b>FH102-SB4</b>	② 1/2"BSP		RV10A-01	5.953
3037779	<b>FH102-AN4</b>	① 1/2"NPTF		SR10-01	5.958
3037599	<b>FH102-SN4</b>	② 1/2"NPTF		WS10Z-01	5.926
3037778	<b>FH102-AS8</b>	① SAE8		WS10ZR-01	5.927
3037612	<b>FH102-SS8</b>	② SAE8		WS10Y-01	5.914
				WS10YR-01	5.921
				WK10W-01	
				WK10V-01	
				SDR10A-01	5.988
				PDB10P-01	5.991
				SD10-01	5.989
3038092	<b>FH103-AB4</b>	① 1/2"BSP	<p>Weight: Al: 0.26 kg St: 0.72 kg</p>	DR10-01	5.950
3037697	<b>FH103-SB4</b>	② 1/2"BSP		RP10A-01	5.932
3038093	<b>FH103-AN4</b>	① 1/2"NPTF		WK10L-01	5.957
3037743	<b>FH103-SN4</b>	② 1/2"NPTF		WK10C-01	5.963
3038095	<b>FH103-AS8</b>	③ 1/2"NPTF		WK10D-01	5.964
3037704	<b>FH103-SS8</b>	③ SAE8		WS10C-01	
				WS10D-01	
				DR10P-01	5.982
				PDR10P-01	5.990
				WK10C-40	5.995
3038097	<b>FH104-AB4</b>	① 1/2"BSP	<p>Weight: Al: 0.32 kg St: 0.88 kg</p>	WK10G-01	5.938
3037784	<b>FH104-SB4</b>	② 1/2"BSP		WK10E-01	5.937
3038109	<b>FH104-AN4</b>	③ 1/2"BSP		WK10H-01	5.936
3037932	<b>FH104-SN4</b>	④ 1/2"BSP		WK10J-01	5.939
3038110	<b>FH104-AS8</b>	① 1/2"NPTF		WK10Y-01	5.971
3037868	<b>FH104-SS8</b>	② 1/2"NPTF		WK10X-01	5.961
			WK10A-01	5.968	
			WK10Z-01	5.960	
			WK10K-01	5.966	
			WK10P-01	5.972	
			WKH10C-01		
			ST10-01	5.967	
			WK10R-01	5.962	
			WK10F-01		
3053843	<b>FH122-AB6</b>	① 3/4"BSP	<p>Weight: Al: St:</p>	RV12A-01	5.952
3053782	<b>FH122-SB6</b>	② 3/4"BSP		WS12Z-01	5.998
3053845	<b>FH122-AS12</b>	① SAE12		WS12ZR-01	5.998.1
3053772	<b>FH122-SS12</b>	② SAE12		WS12Y-01	5.998.2
				WS12YR-01	5.998.3
			DP12P-01	5.922.2	
			PDB12P-01	5.991.2	

Part No.	Model Code	Thread Size	Dimensions	Cartridge valve		
				Type	Brochure / Data Sheet No.	
3053872	<b>FH123-AB6</b>	① 3/4"BSP				
3053908	<b>FH123-SB6</b>	② 3/4"BSP				
3053897	<b>FH123-AS12</b>	① SAE12				
3053909	<b>FH123-SS12</b>	③ SAE12				
			Weight: Al: St:			
3054099	<b>FH124-AB6</b>	① 3/4"BSP				
3054097	<b>FH124-SB6</b>	② 3/4"BSP				
3054208	<b>FH124-AS12</b>	① SAE12				
3054206	<b>FH124-SS12</b>	④ SAE12				
			Weight: Al: St:			
3037193	<b>FH162-AB8</b>	① 1"BSP		RV16A-01	5.951	
3032496	<b>FH162-SB8</b>	② 1"BSP			WS16Z-01	5.945
3037207	<b>FH162-AN8</b>	① 1"NPTF			WS16ZR-01	5.841
3032660	<b>FH162-SN8</b>	② 1"NPTF			WS16Y-01	5.840
3037195	<b>FH162-AS16</b>	① SAE16			WS16YR-01	5.844
3032655	<b>FH162-SS16</b>	② SAE16			DB16P-01	5.822.3
			Weight: Al: 0.56 kg St: 1.55 kg	PDB16P-01	5.991.3	
3037208	<b>FH163-AB8</b>	① 1BSP		RP16A-01	5.931	
3036257	<b>FH163-SB8</b>	② 1BSP				
3037212	<b>FH163-AN8</b>	① 1NPTF				
3036312	<b>FH163-SN8</b>	② 1NPTF				
3037210	<b>FH163-AS16</b>	③ 1NPTF				
3036285	<b>FH163-SS16</b>	① SAE16				
			Weight: Al: 1.10 kg St: 3.05 kg			
3037213	<b>FH164-AB8</b>	① 1"BSP		ST16-01		
3032902	<b>FH164-SB8</b>	② 1"BSP				
3037216	<b>FH164-AN8</b>	③ 1"BSP				
3035700	<b>FH164-SN8</b>	④ 1"BSP				
3037214	<b>FH164-AS16</b>	① 1"NPTF				
3036672	<b>FH164-SS16</b>	② 1"NPTF				
			Weight: Al: 1.43 kg St: 3.95 kg			

## 6. SANDWICH PLATE HOUSINGS

### 6.1. MODEL CODE

Z AB 06020 - 01 X

**Sandwich body** \_\_\_\_\_  
with interface A6 DIN 24340

**Function of each working line** \_\_\_\_\_  
see symbol point 6.3

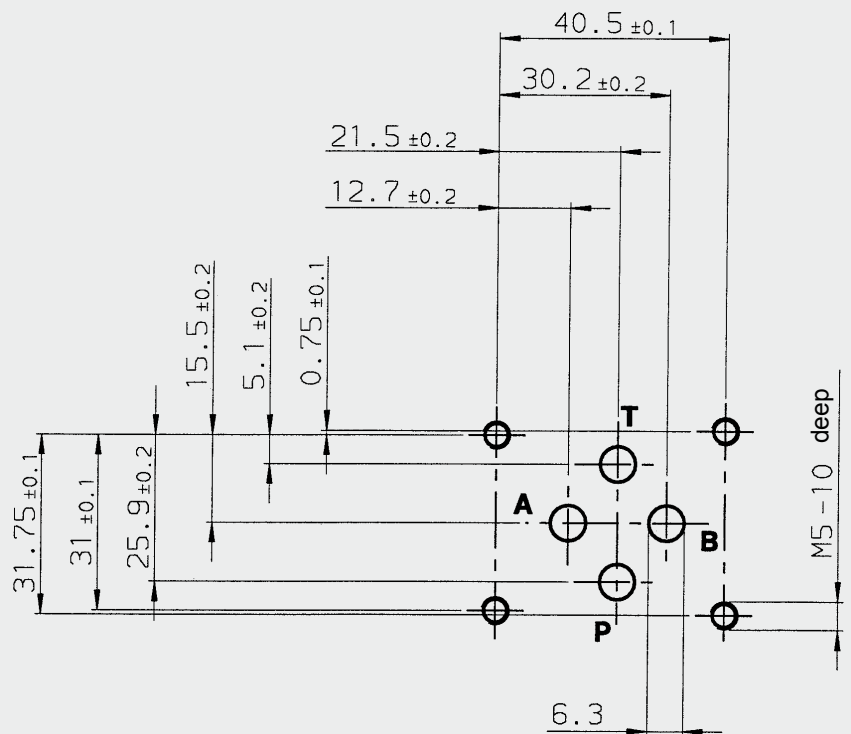
**Cartridge valve cavity** \_\_\_\_\_  
see valve brochure

**Type** \_\_\_\_\_  
(describes individual condition;  
e. g. surface, dimensions,  
functional properties ...)

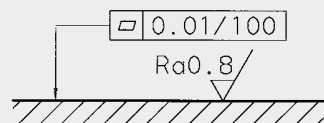
**Series** \_\_\_\_\_  
(determined by manufacturer)

### 6.2. CONNECTION DIMENSIONS

Interface A6 DIN 24340 and CETOP R 35 H-4.2-4-03  
Installation height to CETOP RP 99H-4-03  
(view onto connection plate)



required surface finish  
of mounting plate



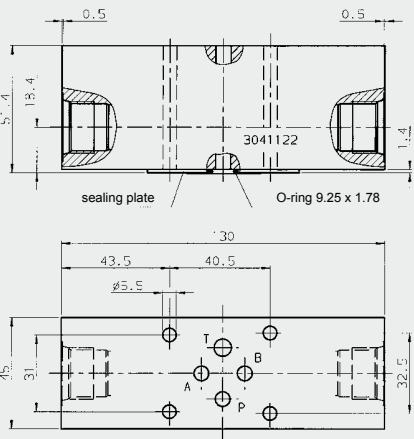
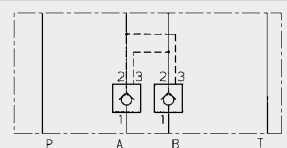
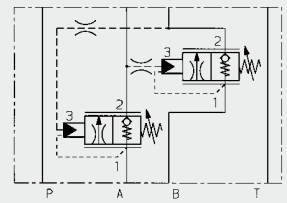
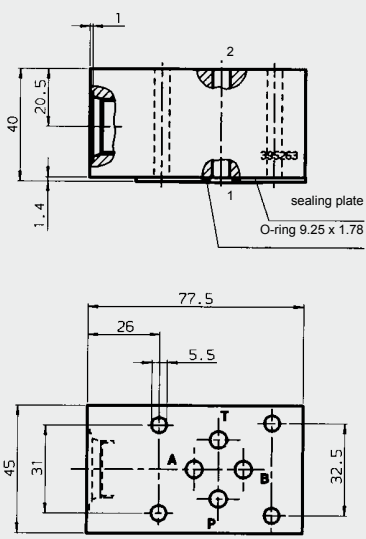

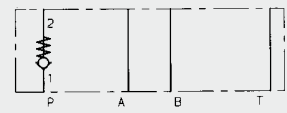
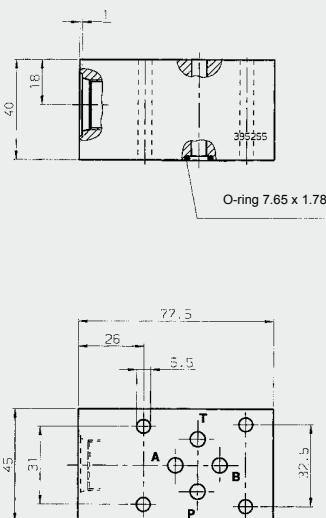
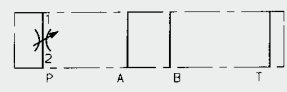
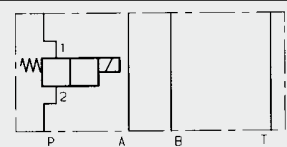


## 6.3. DIMENSIONS

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395252	<b>ZA06020-01X</b> Cartridge valve in line A	<p>395252</p> <p>sealing plate O-ring 9.25 x 1.78</p>	DSR5E	393400	
			DZ5E	5.166	
			DV5E	5.113	
			SR5E	5.117	
			RV5E	5.175	
			WSM06020Z WSM06020ZR WSM06020Y WSM06020YR WSM06020W WSM06020V	5.943 5.946 5.947 5.948 5.949	
			Weight: 0.92 kg		
395611	<b>ZA06020-10X</b> Cartridge valve in line A	<p>395611</p> <p>sealing plate O-ring 9.25 x 1.78</p>	DSR5E	393400	
			DZ5E	5.166	
			SR5E	5.117	
			RV5E	5.175	
			WSM06020Z WSM06020ZR WSM06020Y WSM06020YR WSM06020W WSM06020V	5.943 5.946 5.947 5.948 5.949	
			Weight: 0.92 kg		

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395253	<b>ZB06020-01X</b> Cartridge valve in line B		DSR5E	393400	
			DZ5E	5.166	
			DV5E	5.113	
			SR5E	5.117	
			RV5E	5.175	
			WSM06020Z	5.943	
			WSM06020ZR	5.946	
Weight: 0.92 kg					
395612	<b>ZB06020-10X</b> Cartridge valve in line B		DSR5E	393400	
			DZ5E	5.166	
			SR5E	5.117	
			RV5E	5.175	
			WSM06020Z	5.943	
			WSM06020ZR	5.946	
			WSM06020Y	5.947	
Weight: 0.92 kg					

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395254	<b>ZAB06020-01X</b> Cartridge valve in lines A and B		DSR5E	393400	
			DZ5E	5.166	
			DV5E	5.113	
			SR5E	5.117	
			RV5E	5.175	
			WSM06020Z	5.943	
			WSM06020ZR	5.946	
			WSM06020Y	5.947	
			WSM06020YR	5.948	
			WSM06020W	5.949	
WSM06020V	5.949				
Weight: 0.87 kg					
395613	<b>ZAB06020-10X</b> Cartridge valve in lines A and B		DSR5E	393400	
			DZ5E	5.166	
			SR5E	5.117	
			RV5E	5.175	
			WSM06020Z	5.943	
			WSM06020ZR	5.946	
			WSM06020Y	5.947	
			WSM06020YR	5.948	
			WSM06020W	5.949	
			WSM06020V	5.949	
Weight: 0.87 kg					

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
3041122	<b>ZAB08021-02X</b> Cartridge valve in lines A and B	Material: aluminium max. pressure: $p_{max} = 210$ bar  	ERVE08021	5.172	
			SBVE-R½	5.177	
Weight: 0.69 kg					
395263	<b>ZP06020-01X</b> Cartridge valve in line P		SR5E	5.117	
			RV5E	5.175	
Weight: 0.91 kg					
395255	<b>ZP06020-10X</b> Cartridge valve in line P		DV5E	5.113	
			WSM06020Z 5.943 WSM06020ZR 5.946 WSM06020Y 5.947 WSM06020YR 5.948 WSM06020W 5.949 WSM06020V		
Weight: 0.91 kg					

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395265	<b>ZT06020-01X</b> Cartridge valve in line T	<p style="text-align: center;">Weight: 0.91 kg</p>	RV5E	5.175	
395256	<b>ZPT06020-01X</b> Cartridge valve between lines P and T	<p style="text-align: center;">Weight: 0.91 kg</p>	DV5E	5.113	
			RV5E	5.175	
			WSM06020Z WSM06020ZR WSM06020Y WSM06020YR WSM06020W WSM06020V	5.943 5.946 5.947 5.948 5.949	
395264	<b>ZPT06020-10X</b> Cartridge valve between lines P and T	<p style="text-align: center;">Weight: 0.91 kg</p>	DB4E	5.161	
			PDB06020	5.164	
			SR5E	5.117	

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395260	<b>ZAP06020-01X</b> Cartridge valve between lines A and P		WSM06020W WSM06020V	5.949	
395261	<b>ZAPBT06020-01X</b> Cartridge valve between lines A and P and lines B and T		WSM06020W WSM06020V	5.949	
395257	<b>ZAT06020-01X</b> Cartridge valve between lines A and T		DB4E	5.161	
			PDB06020	5.164	
			DV5E	5.113	
			SR5E	5.117	
WSM06020W WSM06020V	5.949				

E 5.252.6/01.13

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395258	<b>ZBT06020-01X</b> Cartridge valve between lines B and T	<p>torque 25±5 Nm</p> <p>1</p> <p>19.5</p> <p>40</p> <p>SW 24</p> <p>sealing plate</p> <p>O-ring 9.25 x 1.78</p> <p>395258</p> <p>1.4</p> <p>97</p> <p>90</p> <p>24</p> <p>5.5</p> <p>45</p> <p>25.5</p> <p>31</p> <p>32.5</p>	DB4E	5.161	
			PDB06020	5.164	
			DV5E	5.113	
			SR5E	5.117	
			WSM06020W WSM06020V	5.949	
Weight: 1.04 kg					
395259	<b>ZABT06020-01X</b> Cartridge valve between lines A and T and lines B and T	<p>1</p> <p>1</p> <p>40</p> <p>19.5</p> <p>1.4</p> <p>sealing plate</p> <p>O-ring 9.25 x 1.78</p> <p>395259</p> <p>90</p> <p>24</p> <p>5.5</p> <p>45</p> <p>25.5</p> <p>31</p> <p>32.5</p>	DB4E	5.161	
			PDB06020	5.164	
			DV5E	5.113	
			SR5E	5.117	
			WSM06020W WSM06020V	5.949	
Weight: 0.99 kg					

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
3065992	ZABT06020-02X	<p>Weight: 0.98 kg</p>	WSM06020Z 5.943 WSM06020ZR 5.946 WSM06020Y 5.947 WSM06020YR 5.948 WSM06020W 5.949 WSM06020V		
3578184	ZP10121		DMM10121	5.169.9	



## 7. SUBPLATE BODIES

### 7.1. MODEL CODE

D AB 06020 01 X

**Subplate body** \_\_\_\_\_  
with interface A6 DIN 24340

**Function of each working line** \_\_\_\_\_  
see symbol under point 7.3

**Cartridge valve cavity** \_\_\_\_\_  
see valve brochure

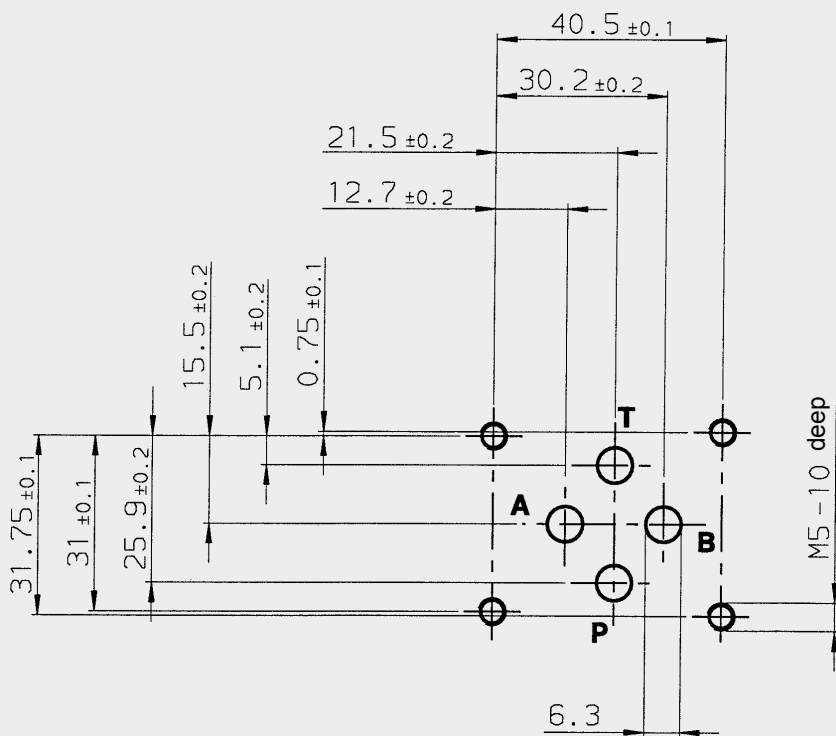
**Type** \_\_\_\_\_  
(describes individual condition; e. g. surface, dimensions, functional properties ...)

- |                         |             |
|-------------------------|-------------|
| 11 = orifice dia. 1.1   | } in line P |
| 12 = orifice dia. 1.2   |             |
| 13 = orifice dia. 1.3   |             |
| 15 = orifice dia. 1.5   |             |
| 30 = check valve insert |             |

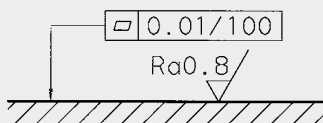
**Series** \_\_\_\_\_  
(determined by manufacturer)

### 7.2. CONNECTION DIMENSION

Interface A6 DIN 24340 and CETOP R 35 H-4.2-4-03  
Installation height to CETOP RP 99H-4-03  
(view onto connection plate)

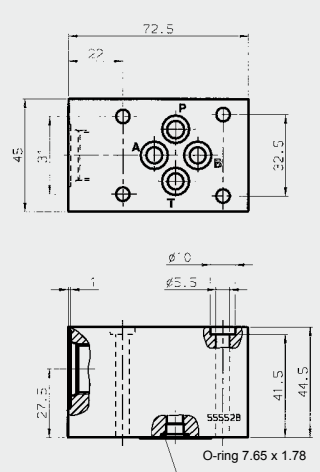
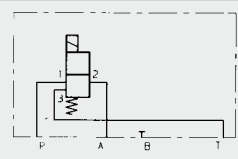
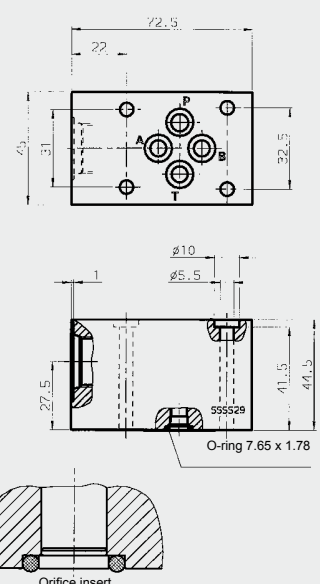
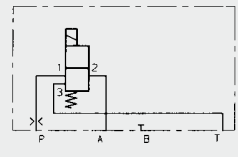
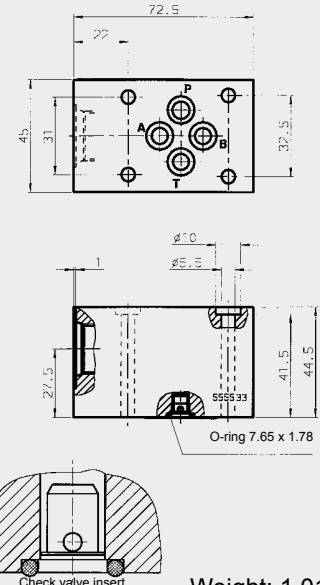
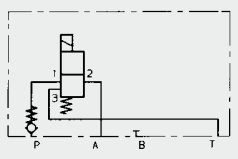


required surface finish  
of mounting plate



## 7.3. DIMENSIONS

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395420	<b>D03230-01X</b>	<p>Weight: 0.89 kg</p>	WSE 3	5.203	
395614	<b>D03230-11X</b>	<p>Weight: 0.89 kg</p>	WSE 3	5.203	
395621	<b>D03230-12X</b>				
395622	<b>D03230-13X</b>				
395623	<b>D03230-15X</b>				
	For model code see point 7.1 For curves see point 7.4				
395615	<b>D03230-30X</b>	<p>Weight: 0.90 kg</p>	WSE 3	5.203	
	For curves see point 7.4				

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
555528	<b>D08130-01X</b>	 <p>Weight: 1.00 kg</p>	PDM08130 WSEC08130 WSED08130 WKM08130C WKM08130D WKM08130L WSM08130D	5.168 5.935 5.934 5.976 5.977	
555529	<b>D08130-11X</b>	 <p>Weight: 1.00 kg</p>	PDM08130 WSEC08130 WSED08130 WKM08130C WKM08130D WKM08130L WSM08130D	5.168 5.935 5.934 5.976 5.977	
555530	<b>D08130-12X</b>				
555531	<b>D08130-13X</b>				
555532	<b>D08130-15X</b>				
	For model code see point 7.1 For curves see point 7.4				
555533	<b>D08130-30X</b>	 <p>Weight: 1.01 kg</p>	PDM08130 WSEC08130 WSED08130 WKM08130C WKM08130D WKM08130L WSM08130D	5.168 5.935 5.934 5.976 5.977	
	For curves see point 7.4				

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395266	<b>DA06020-01X</b> Cartridge valve between A and T with check valve in line P	<p style="text-align: center;">Weight: 0.98 kg</p>	WSM06020Z	5.943	
			WSM06020ZR	5.946	
395267	<b>DB06020-01X</b> Cartridge valve between B and T with check valve in line P	<p style="text-align: center;">Weight: 0.98 kg</p>	WSM06020Z	5.943	
			WSM06020ZR	5.946	

Part No.	Model Code	Dimensions	Cartridge valve		Symbol	
			Type	Brochure / Data Sheet No.		
395269	<b>DAB06020-01X</b> Cartridge valve between A and B		DB4E	5.161		
			DSR5E	393400		
			DZ5E	5.166		
			PDB06020	5.164		
			DV5E	5.113		
			SR5E	5.117		
			RV5E	5.175		
			WSM06020Z WSM06020ZR WSM06020Y WSM06020YR WSM06020W WSM06020V	5.943 5.946 5.947 5.948 5.949		

Weight: 0.69 kg

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
558020	<b>DPT06020-01X</b> Cartridge valve between P and T	<p>Weight: 0.90 kg</p>	DB4E	5.161	
				5.164	
			PDB06020 SR5E	5.117	
395270	<b>DPAT06020-01X</b> Cartridge valve between P and A and between A and T	<p>Weight: 1.10 kg</p>	WSM06020Z WSM06020ZR WSM06020Y WSM06020YR WSM06020W WSM06020V	5.943 5.946 5.947 5.948 5.949	
			between A and T only symbol V and W		
395271	<b>DPRAT06020-01X</b> Cartridge valve between P and A and between A and T with check valve in port P	<p>Weight: 1.11 kg</p>	WSM06020Z WSM06020ZR WSM06020Y WSM06020YR WSM06020W WSM06020V	5.943 5.946 5.947 5.948 5.949	
			between A and T only symbol V and W		

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395389	<b>DAT06020-01X</b> Cartridge valve between A and T	<p>Weight: 1.17 kg</p>	WSM06020Z	5.943	
			WSM06020ZR	5.946	
			WSM06020Y	5.947	
			WSM06020YR	5.948	
			WSM06020W	5.949	
			WSM06020V		

## 7.4. HYDRAULIC DETAILS

### Subplate body type D

Either orifices or a check valve can be fitted into port P as an additional function. Both at the same time is not possible.

#### 7.4.1. Orifice insert

An orifice is used when unacceptably high flow rates can overload the valve. This is the case for example with accumulator operation or when used as a valve for internal pilot oil control.

Irrespective of the maximum pressure, the orifice diameter must be selected so that the permissible flow rate of the cartridge valve used is not exceeded.

#### 7.4.1.1 Pressure drop curves

Dependent on flow rate, measured at  $v = 34 \text{ mm}^2/\text{s}$  and  $t_{\text{oil}} = 46 \text{ }^\circ\text{C}$

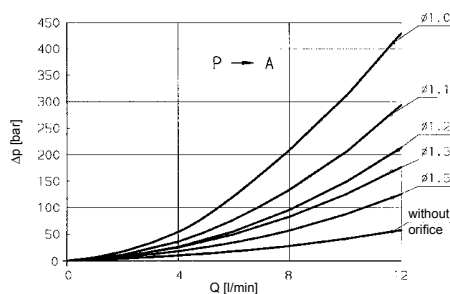
#### 7.4.2. Check valve insert

The check valve allows free flow in only one direction and shuts off the other direction leak-free. This prevents an uncontrolled return flow or a pressure return into the P-line. Thus it prevents mutual interference of valves connected in parallel.

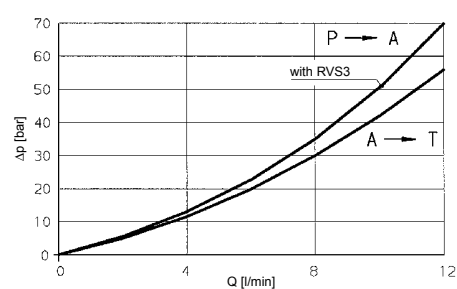
#### 7.4.2.1 Pressure drop curves

Dependent on flow rate, measured at  $v = 34 \text{ mm}^2/\text{s}$  and  $t_{\text{oil}} = 46 \text{ }^\circ\text{C}$

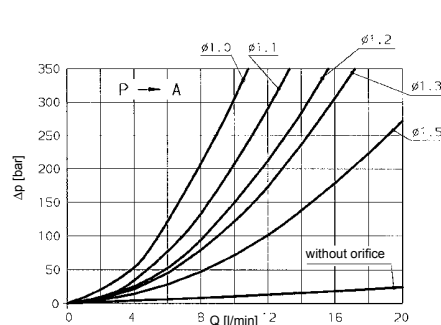
### D03230... with WSE30C...



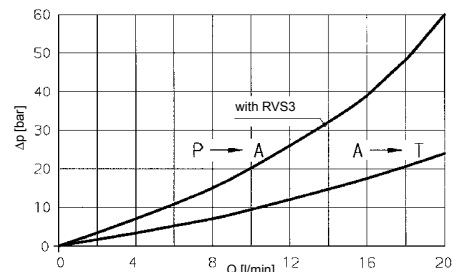
### D03230... with WSE3E0C...



### D08130... with WSEC08130...



### D08130... with WSEC08130...



## 8. DESIGN

### RECOMMENDATIONS

Sandwich bodies and subplate bodies with two inlet ports for cartridge valves can also be provided with different valve functions.

## 9. NOTES

The information in this brochure relates to the operating conditions and applications described. For applications and operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

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