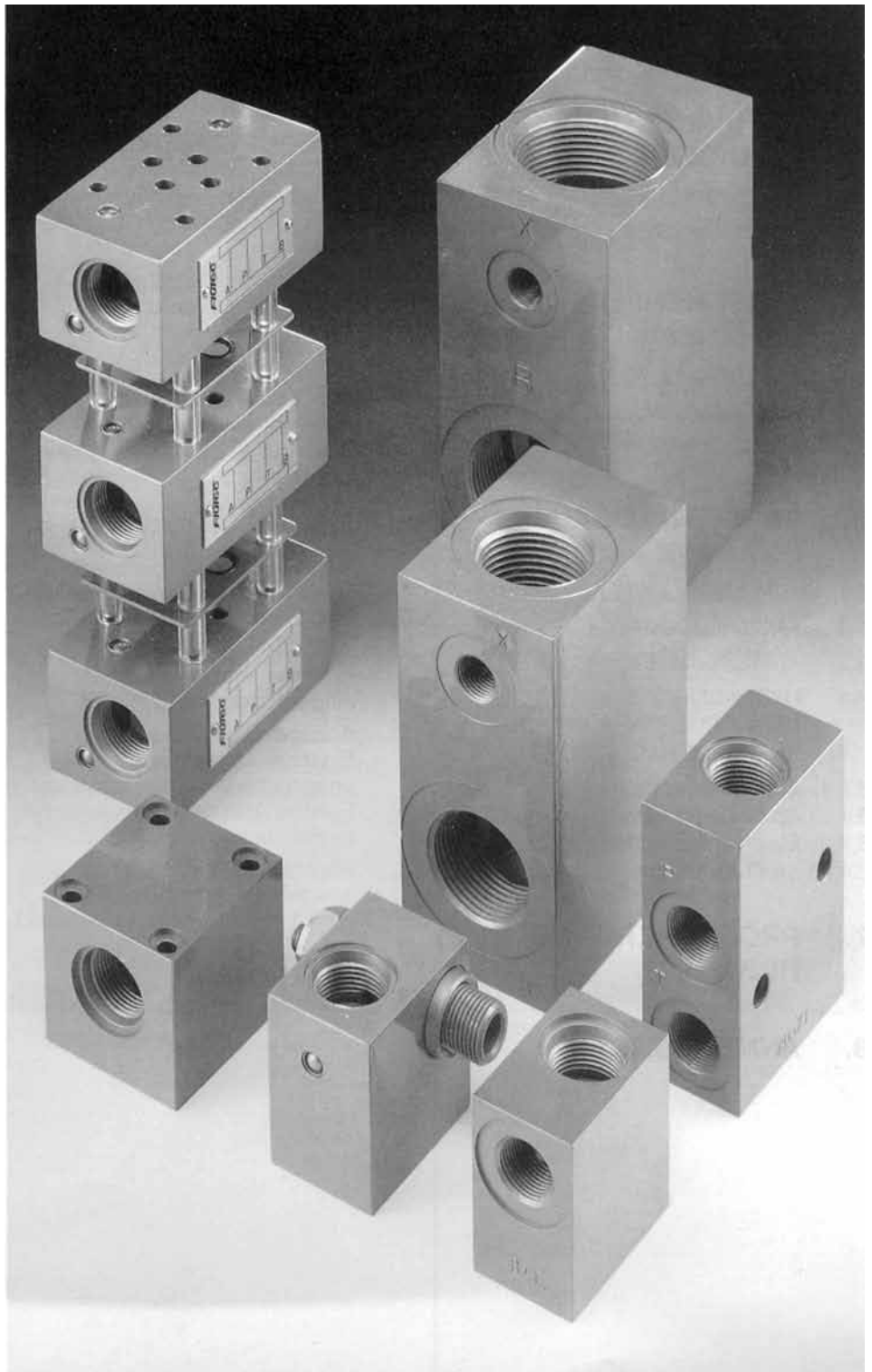


Connection Housings for Cartridge Valves

Standard Inline Bodies
Sandwich Bodies
Subplate Bodies



INDEX HOUSING BROCHURE

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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

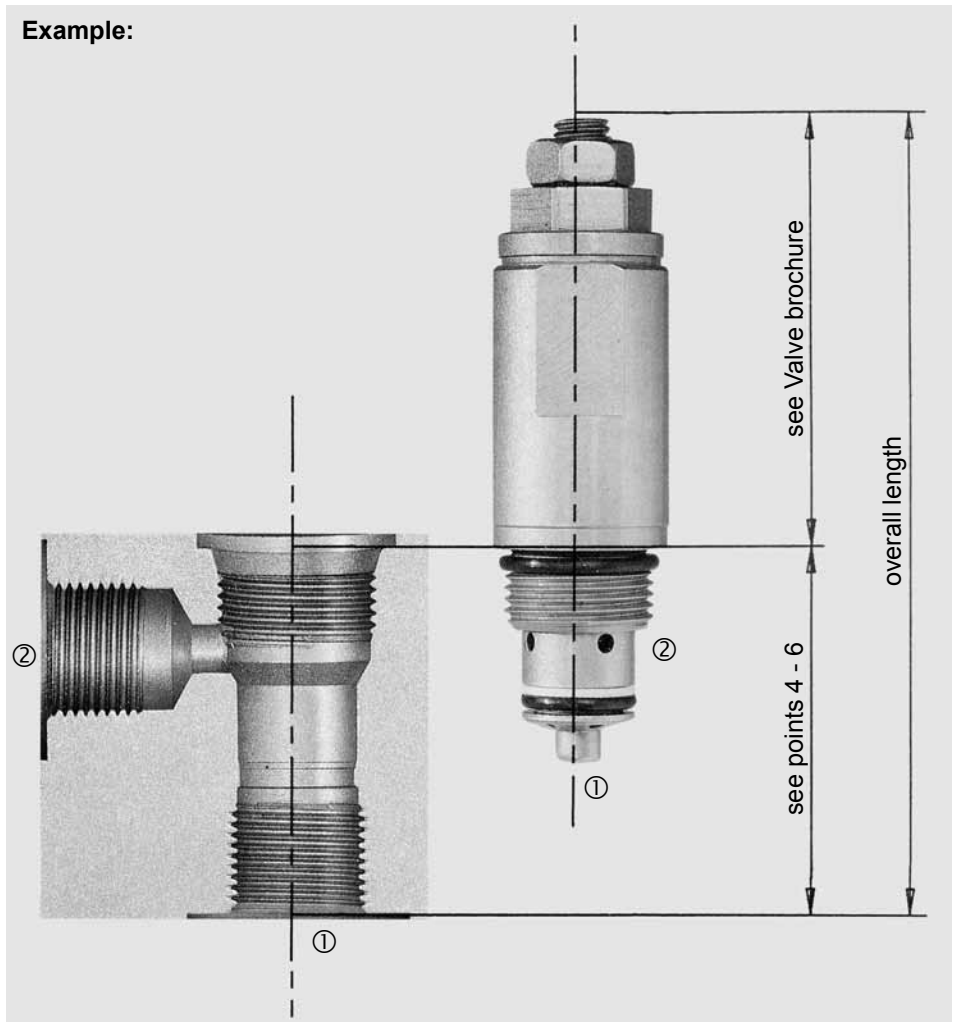
Type D...

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

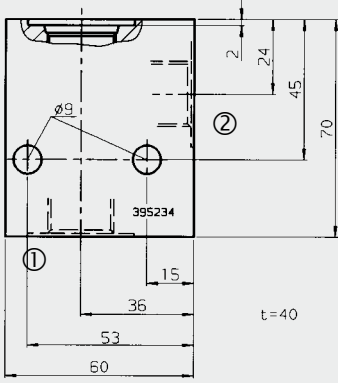
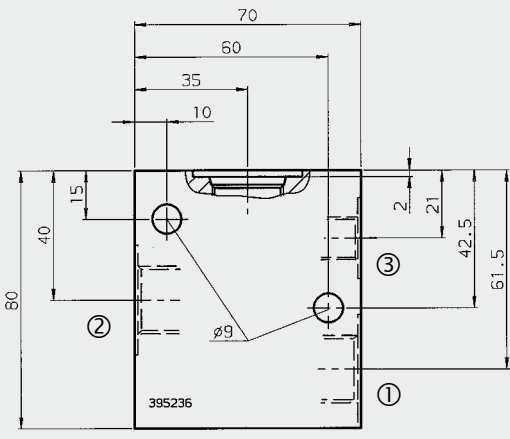
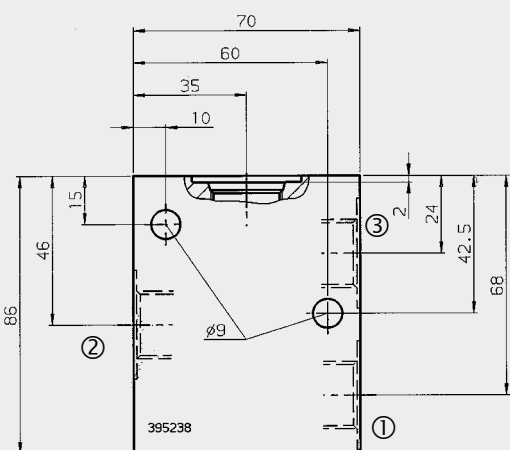
R: Standard inline body
A: Cylinder connection housing
X: Internal valve housing

Cartridge valve cavity
 see valve brochure

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

Series
 (determined by manufacturer)

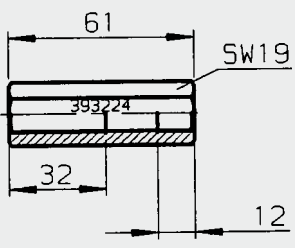
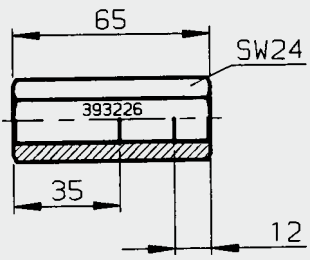
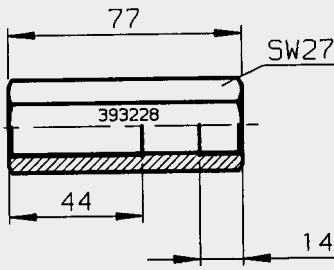
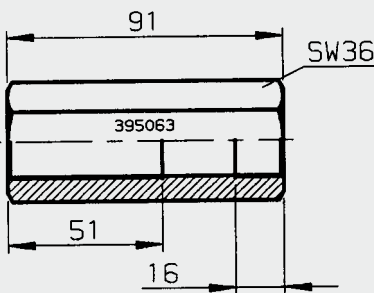
Housing connection thread
 see point 4.2

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

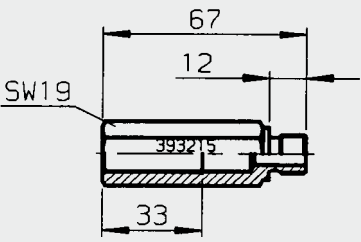
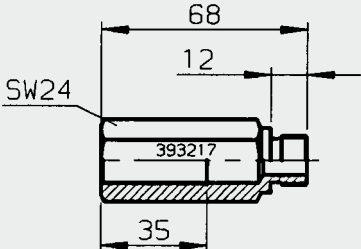
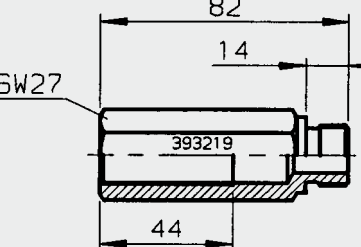
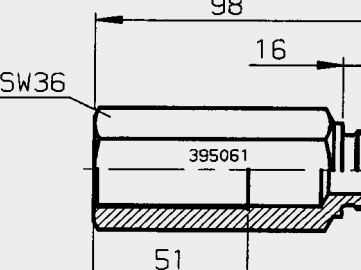
Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
396489	R12120A-01X-01	① G 3/4 ② G 3/4	<p style="text-align: right;">Weight: 1.40 kg</p>	DB 12120 A	5.169
396708	R12120-10X-01	① G 3/4 ② G 3/4	<p style="text-align: right;">Weight: 1.39 kg</p>	WSM12120	396324
396707	R12120-10X-02	① M 27x2 ② M 27x2	<p style="text-align: right;">Weight: 1.39 kg</p>		
3130704	R12121-01X-01	① G 3/4 ② G 3/4 ③ G 3/8	<p style="text-align: right;">Weight: 1.89 kg</p>	DB12121PE	5.996
				DB12121PF	5.997
				PDB12121PE	
				PDB12121PF	

Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
560705	R12230-01X-01	① G 1/2 ② G 3/4 ③ G 1/2	<p>t=45 Weight: 2.40 kg</p>	ST12230	560637
277051	R16021-01X-01	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	R20021-01X-01	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	A06020-04X-01	① G 3/8 ② G 3/8		WSM06020Z	5.943
				WSM06020ZR	5.946
				WSM06020Y	5.947
				WSM06020YR	5.948
				WSM06020W	5.949
				WSM06020V	
396774	A06020-14X-01	① G 1/2 ② G 1/2		WSM06020Z	5.943
				WSM06020ZR	5.946
				WSM06020Y	5.947
				WSM06020YR	5.948
				WSM06020W	5.949
				WSM06020V	

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

E 5.252.6/01.13

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

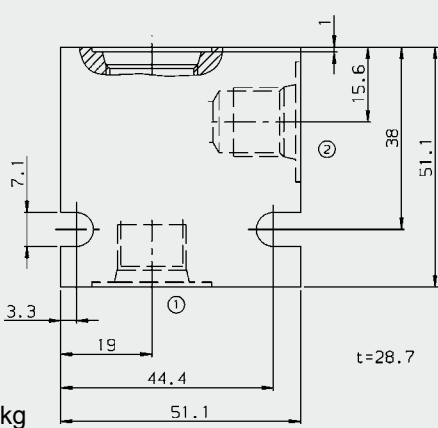
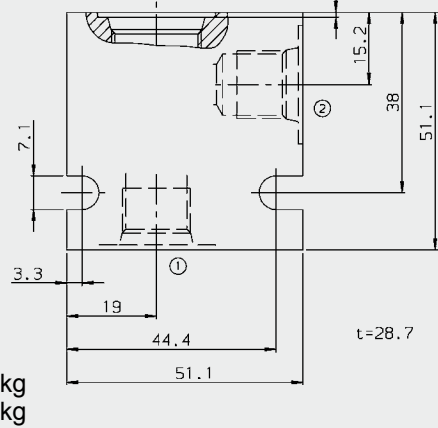
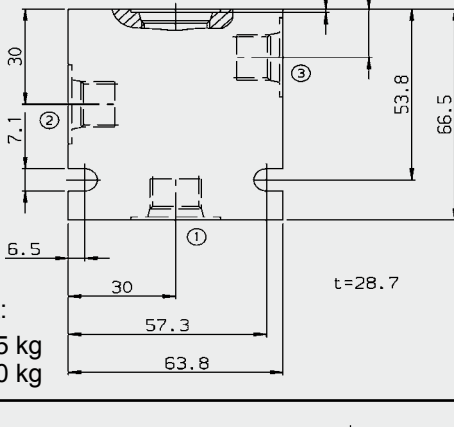
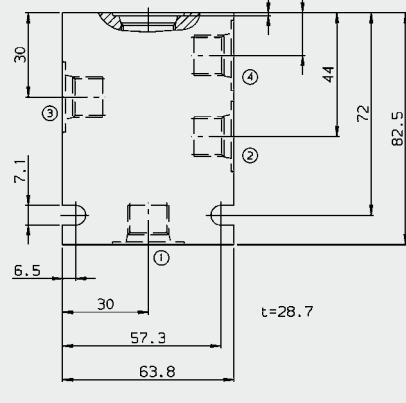
B6 = 3/4" BSP

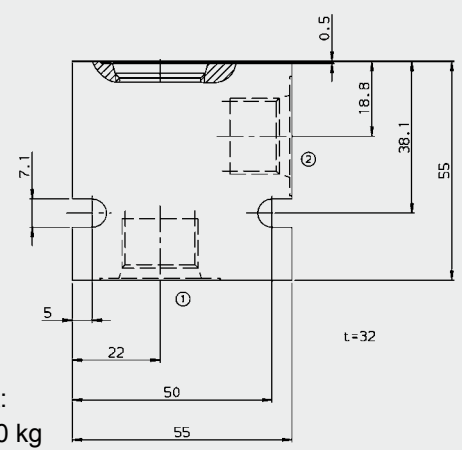
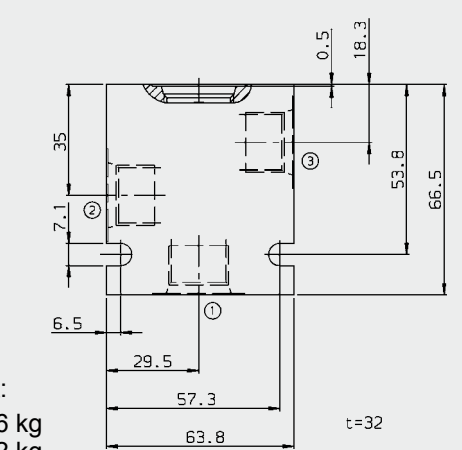
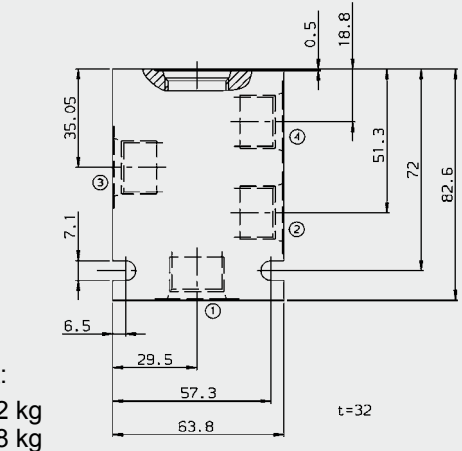
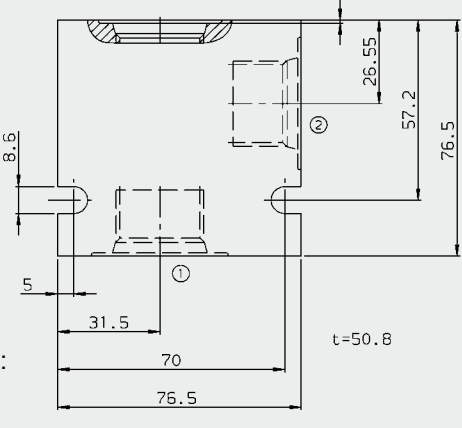
S16 = SAE16

B8 = 1" BSP

Others on request

5.2. DIMENSIONS

Part No.	Model Code	Thread Size	Dimensions	Cartridge valve	
				Type	Brochure / Data Sheet No.
3067477	FH0812-AB3	① 3/8"BSP	 <p>Weight: Al: 0.15 kg St: 0.42 kg</p>	WKM081W-01	5.956
3067468	FH0812-SB3	② 3/8"BSP		WS081Z-01	5.980
3067619	FH0812-AN3	① 3/8"NPTF		WS081ZR-01	5.979
3067472	FH0812-SN3	② 3/8"NPTF		WS081Y-01	5.987
3067518	FH0812-AS6	① SAE6		WS081YR-01	5.986
3076471	FH0812-SS6	② SAE6			
3011423	FH082-AB3	① 3/8"BSP	 <p>Weight: Al: 0.15 kg St: 0.42 kg</p>	WS08ZR-01J	5.984
560919	FH082-SB3	② 3/8"BSP		DB08A	5.922
3011411	FH082-AN3	① 3/8"NPTF		DB08P	5.922.1
560918	FH082-SN3	② 3/8"NPTF		RV08A	5.912
3011409	FH082-AS6	① SAE6		SD08-01	5.928
560917	FH082-SS6	② SAE6		SR08-01	5.930
3011427	FH083-AB3	① 3/8"BSP	 <p>Weight: Al: 0.25 kg St: 0.70 kg</p>	WS08Z-01	5.907
560922	FH083-SB3	② 3/8"BSP		WS08ZR-01	5.911
3011425	FH083-AN3	③ 3/8"BSP		WS08Y-01	5.917
560921	FH083-SN3	① 3/8"NPTF		WS08YR-01	5.908
3011424	FH083-AS6	② 3/8"NPTF		WS08W-01	5.924
560920	FH083-SS6	③ 3/8"NPTF		WK08W-01	5.925
3116230	FH083-SM14F	① M14x1.5		WK08V-01	5.918
		② M14x1.5		WS08WM-01	
		③ M14x1.5		WS08WL-01	
				WS08Z-01J	5.983
				PDB08P-01	5.991.1
				WS08Z-30	5.993
			WS08Y-30	5.992	
			WS08W-30	5.994	
3011407	FH084-AB3	① 3/8"BSP	 <p>Weight: Al: 0.31 kg St: 0.86 kg</p>	DR08-01	5.920
563383	FH084-SB3	② 3/8"BSP		RP08A	5.923
3011406	FH084-AN3	③ 3/8"BSP		RS08-01	5.933
563382	FH084-SN3	④ 3/8"BSP		SRP08-01	5.929
3011404	FH084-AS6	① SAE6		WK08L-01	5.913
563381	FH084-SS6	② SAE6		WK08C-01	5.906
		③ SAE6		WK08D-01	5.915
		④ SAE6		WS08D-01	
				DR08P-01	5.920.1
			PDR08P-01	5.990.1	
			PDR08-01		
			PDR08-10		
			PDR08-20		
			WK08Y-01	5.905	
			WK08X-01	5.919	
			WK08A-01	5.910	
			WK08Z-01	5.916	
			WK08K-01	5.904	
			WK08P-01	5.909	

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

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

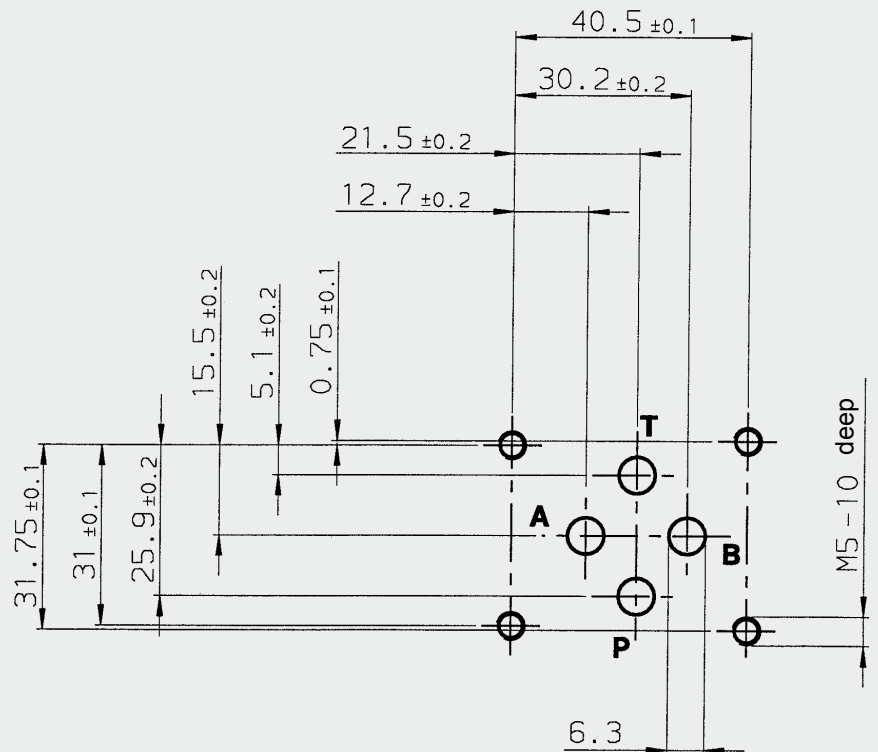
Cartridge valve cavity _____
see valve brochure

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

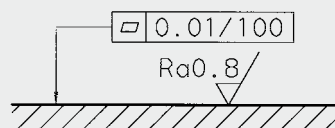
Series _____
(determined by manufacturer)

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



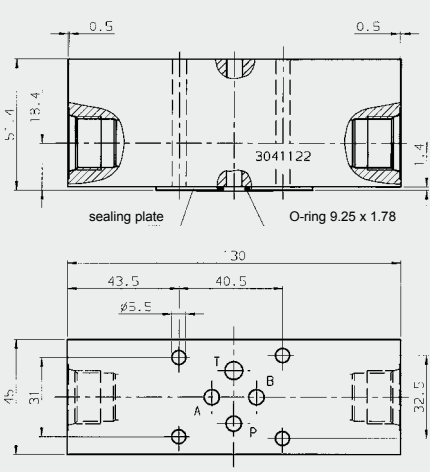
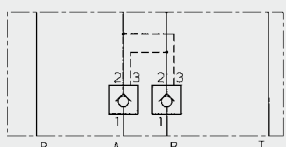
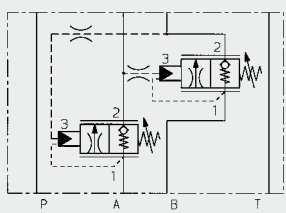
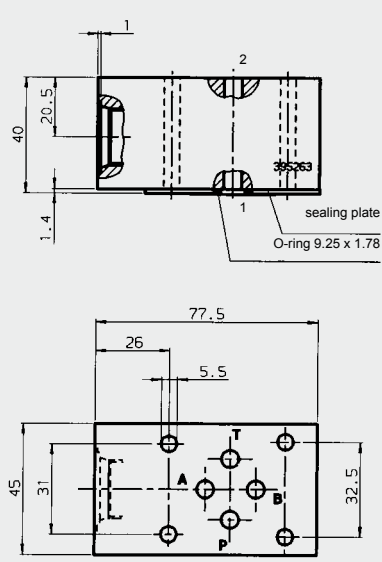
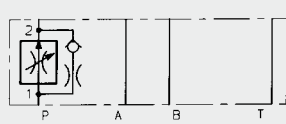
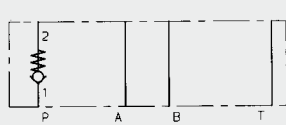
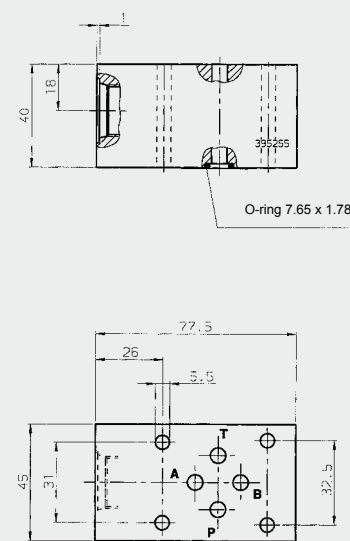
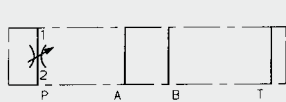
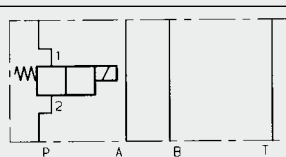
6.3. DIMENSIONS

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

Part No.	Model Code	Dimensions	Cartridge valve		Symbol		
			Type	Brochure / Data Sheet No.			
395253	ZB06020-01X Cartridge valve in line B		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				
395612	ZB06020-10X Cartridge valve in line B		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				

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Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395254	ZAB06020-01X Cartridge valve in lines A and B		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: 0.87 kg					
395613	ZAB06020-10X Cartridge valve in lines A and B		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: 0.87 kg		

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
3041122	ZAB08021-02X Cartridge valve in lines A and B	Material: aluminium max. pressure: $p_{max} = 210 \text{ bar}$ 	ERVE08021	5.172	
			SBVE-R $\frac{1}{2}$	5.177	
			Weight: 0.69 kg		
395263	ZP06020-01X Cartridge valve in line P		SR5E	5.117	
			RV5E	5.175	
			Weight: 0.91 kg		
395255	ZP06020-10X 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	ZT06020-01X Cartridge valve in line T	<p>Weight: 0.91 kg</p>	RV5E	5.175	
395256	ZPT06020-01X Cartridge valve between lines P and T	<p>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	ZPT06020-10X Cartridge valve between lines P and T	<p>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	ZAP06020-01X Cartridge valve between lines A and P	<p>Weight: 1.08 kg</p>	WSM06020W	5.949	
			WSM06020V		
395261	ZAPBT06020-01X Cartridge valve between lines A and P and lines B and T	<p>Weight: 1.01 kg</p>	WSM06020W	5.949	
			WSM06020V		
395257	ZAT06020-01X Cartridge valve between lines A and T	<p>Weight: 1.04 kg</p>	DB4E	5.161	
			PDB06020	5.164	
			DV5E	5.113	
			SR5E	5.117	
			WSM06020W	5.949	
WSM06020V					

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Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395258	ZBT06020-01X Cartridge valve between lines B and T	<p>torque 25+5 Nm</p> <p>SW 24</p> <p>sealing plate</p> <p>O-ring 9.25 x 1.78</p> <p>19.5</p> <p>40</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	ZABT06020-01X Cartridge valve between lines A and T and lines B and T	<p>1</p> <p>40</p> <p>19.5</p> <p>1.4</p> <p>395259</p> <p>sealing plate</p> <p>O-ring 9.25 x 1.78</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 ...)

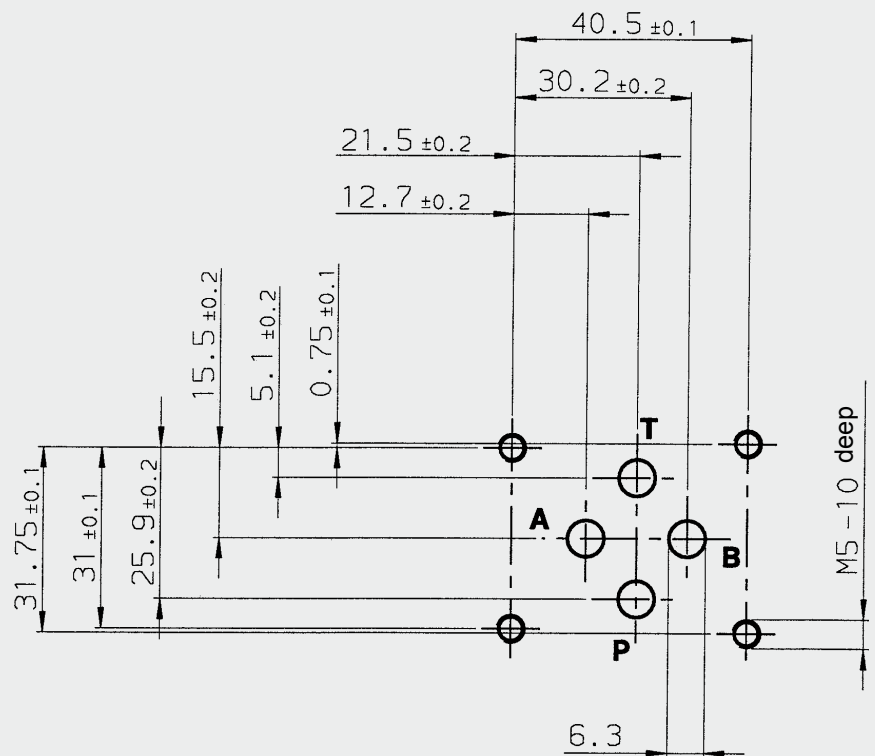
11 = orifice dia. 1.1
12 = orifice dia. 1.2
13 = orifice dia. 1.3
15 = orifice dia. 1.5
30 = check valve insert

} in line P

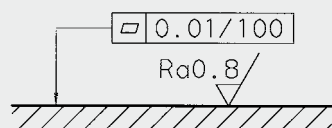
Series _____
(determined by manufacturer)

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	D03230-01X	<p>Weight: 0.89 kg</p>	WSE 3	5.203	
395614	D03230-11X	<p>Weight: 0.89 kg</p>	WSE 3	5.203	
395621	D03230-12X				
395622	D03230-13X				
395623	D03230-15X				
		<p>For model code see point 7.1 For curves see point 7.4</p>			
395615	D03230-30X	<p>Weight: 0.90 kg</p>	WSE 3	5.203	

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Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
555528	D08130-01X	<p>Weight: 1.00 kg</p>	PDM08130 WSEC08130 WSED08130 WKM08130C WKM08130D WKM08130L WSM08130D	5.168 5.935 5.934 5.976 5.977	
555529	D08130-11X	<p>Weight: 1.00 kg</p>	PDM08130 WSEC08130 WSED08130 WKM08130C WKM08130D WKM08130L WSM08130D	5.168 5.935 5.934 5.976 5.977	
555530	D08130-12X				
555531	D08130-13X				
555532	D08130-15X				
	For model code see point 7.1 For curves see point 7.4				
555533	D08130-30X	<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	DA06020-01X Cartridge valve between A and T with check valve in line P		WSM06020Z	5.943	
			WSM06020ZR	5.946	
395267	DB06020-01X Cartridge valve between B and T with check valve in line P		WSM06020Z	5.943	
			WSM06020ZR	5.946	
			WSM06020Y	5.947	
			WSM06020YR	5.948	
			WSM06020W	5.949	
			WSM06020V	5.949	

Weight: 0.98 kg

Weight: 0.98 kg

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395269	DAB06020-01X 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	DPT06020-01X Cartridge valve between P and T		DB4E	5.161	
				5.164	
			PDB06020 SR5E	5.117	
Weight: 0.90 kg					
395270	DPAT06020-01X Cartridge valve between P and A and between A and T		WSM06020Z	5.943	
			WSM06020ZR	5.946	
			WSM06020Y	5.947	
			WSM06020YR	5.948	
			WSM06020W	5.949	
			WSM06020V		
			between A and T only symbol V and W		
Weight: 1.10 kg					
395271	DPRAT06020-01X Cartridge valve between P and A and between A and T with check valve in port P		WSM06020Z	5.943	
			WSM06020ZR	5.946	
			WSM06020Y	5.947	
			WSM06020YR	5.948	
			WSM06020W	5.949	
			WSM06020V		
			between A and T only symbol V and W		
Weight: 1.11 kg					

Part No.	Model Code	Dimensions	Cartridge valve		Symbol
			Type	Brochure / Data Sheet No.	
395389	DAT06020-01X Cartridge valve between A and T		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 $t_{\text{oil}} = 46 \text{ }^\circ\text{C}$

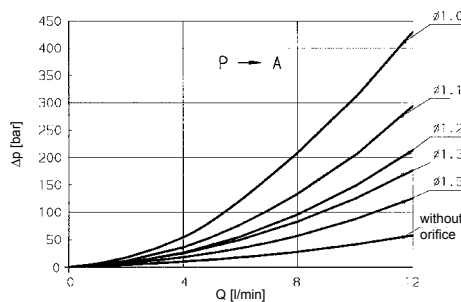
7.4.2. Check valve insert

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.

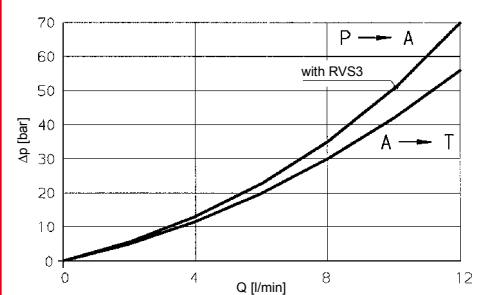
7.4.2.1 Pressure drop curves

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

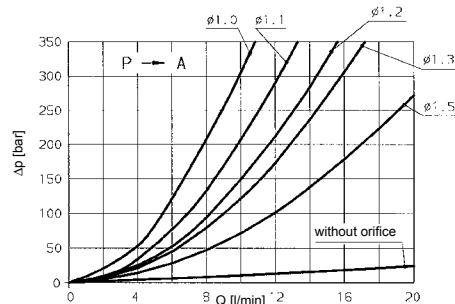
D03230-... with WSE30C...



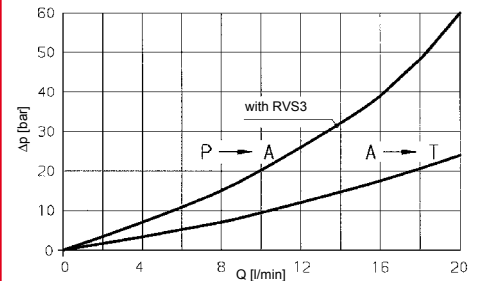
D03230-... with WSE3E0C...



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.