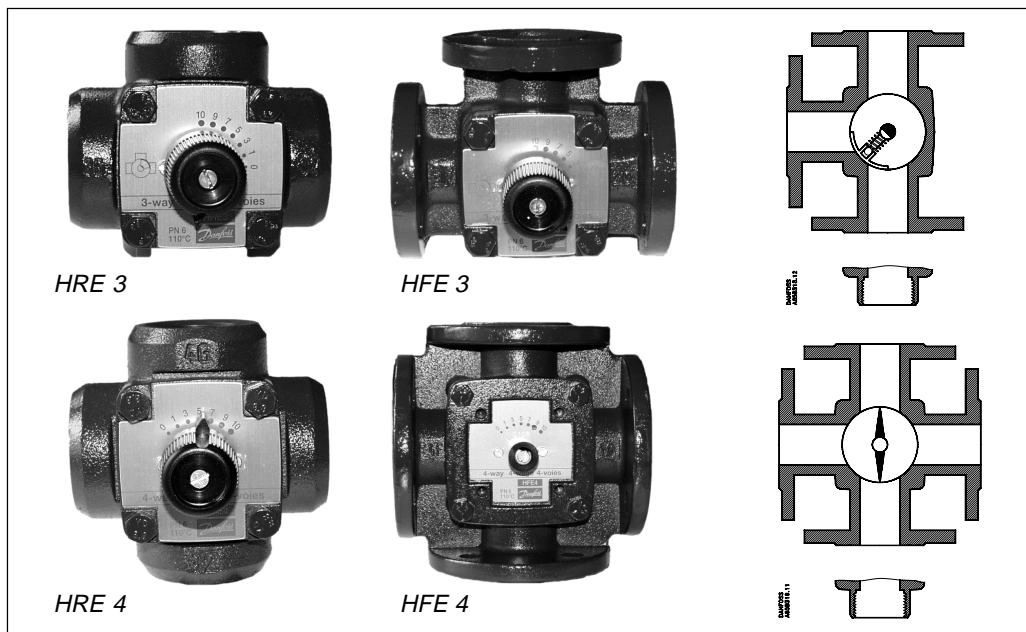


# Data sheet

## Rotary valves

### HRE & HFE

#### Description / Application



- 3-way or 4-way
- Internal thread (Rp) ISO 7/1 and flanged connections (flanges to DIN 2531)
- Linear characteristic
- For mixing or diverting

Rotating valves can be used in systems where there is no need for defined control characteristic, and where certain amounts of leakage from closed valves can be accepted.

Rotating valves HRE and HFE are used combined with Danfoss actuators AMB 162 and AMB 182.

#### Ordering

Type	Connection	Codeno.									
		R <sub>p</sub> ¾ 20mm	R <sub>p</sub> 1 25mm	R <sub>p</sub> 1¼ 32mm	R <sub>p</sub> 1½ 40mm	R <sub>p</sub> 2 50mm	65mm	80mm	100mm	125mm	150mm
HRE 3	Internal thread R <sub>p</sub>	065B5019	065B5025	065B5032	065B5038	065B5051					
HRE 4		065B6019	065B6025	065B6032	065B6038	065B6051					
HFE 3	flanges	065B5120	065B5125	065B5132	065B5140	065B5150	065B5165	065B5180	065B5200	065B5225	065B5250
HFE 4				065B6132	065B6140	065B6150	065B6165	065B6180	065B6200	065B6225	065B6250

#### Accessories

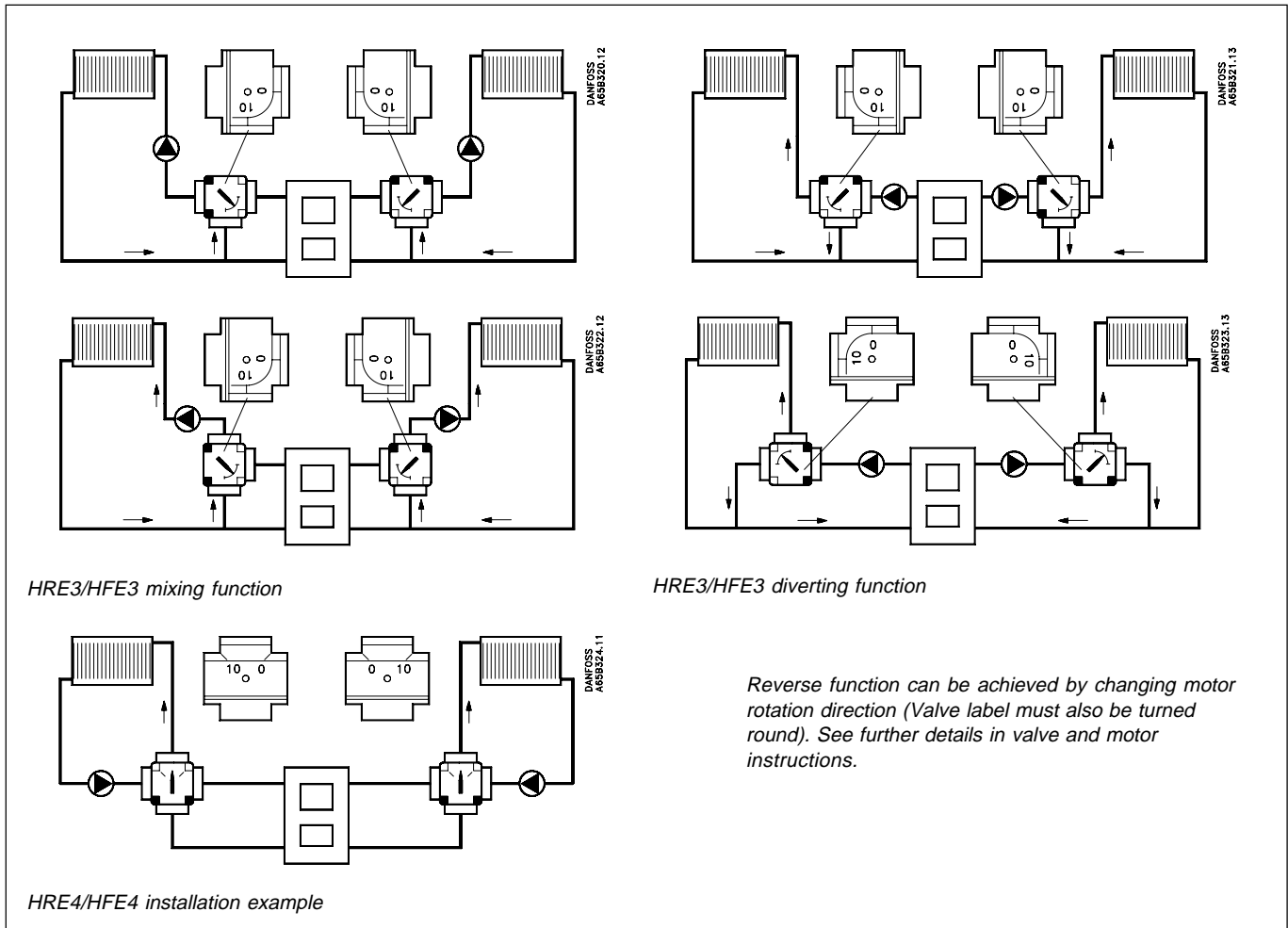
Component	Application	Code no.
Coupling	AMB 162 and AMB 182	<sup>1)</sup> 082G4230

<sup>1)</sup> Supplied with the actuator.

#### Spare parts

Component	Application	Code no.
O-rings	HRE/HFE, R <sub>p</sub> ¾ - R <sub>p</sub> 1½ or 20 - 40 mm	065B0003
	HRE/HFE, R <sub>p</sub> 2 or 50 - 150 mm	065B0004
Handle knob lever	HRE/HFE/HRB DN 20 - 40	065B2210
	HRE/HFE DN 50 - 150	065B2211

Installation



Data

Pressure range ..... PN 6  
 Max. required torque (unloaded) DN 50, 5 Nm  
 ..... DN 100, 10 Nm  
 ..... DN 150, 15 Nm  
 Medium temperature ..... 0 - 110 °C  
 Media ..... Water 7 - 10 pH  
 Glycolic water 50% ..... -10 °C

Leakage with valve closed and max. differential pressure:  
 3-way valve: Diverting ..... max. 0.5 % of  $k_{vs}$   
 ..... Mixing ..... max. 1.0 % of  $k_{vs}$   
 4-way valve ..... max. 1.5 % of  $k_{vs}$

Materials

Body and cover: ..... cast iron GG 20  
 Slide shoe: ..... brass casting  
 Spindle: ..... Stainless steel  
 Gland: ..... double O-ring

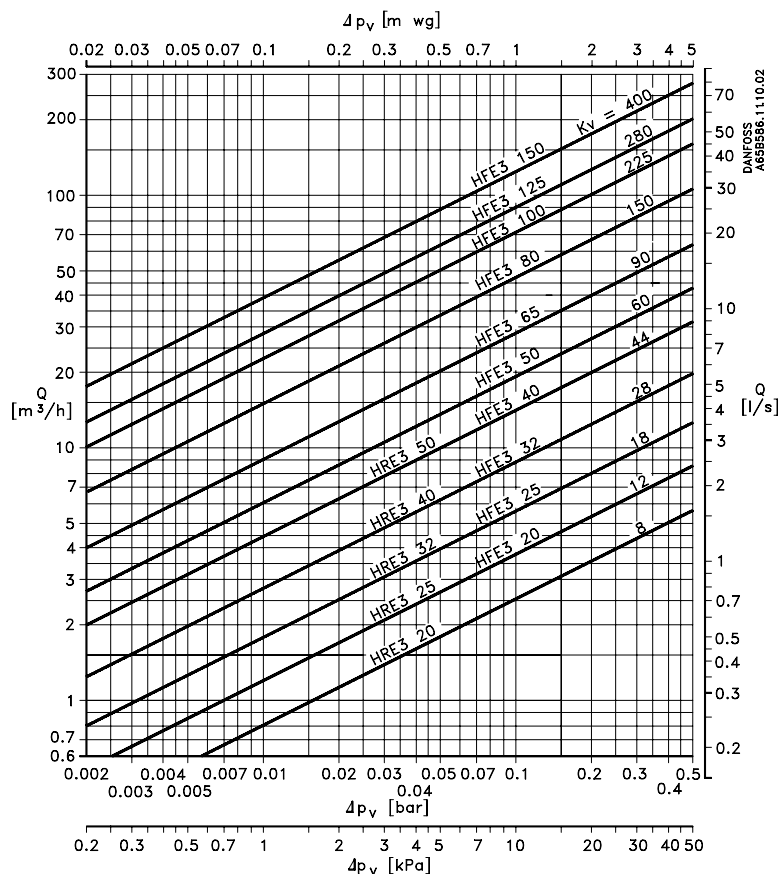
3-way valves

Valve	Connectors	$R_p$	¾	1	1¼	1½	2					
	Flanges	mm	20	25	32	40	50	65	80	100	125	150
Max. differential pressure (bar)	HRE	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
	HFE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
$k_{vs}$ m³/h	HRE 3	8	12	18	28	44	-	-	-	-	-	-
	HFE 3	12	18	28	44	60	90	150	225	280	400	

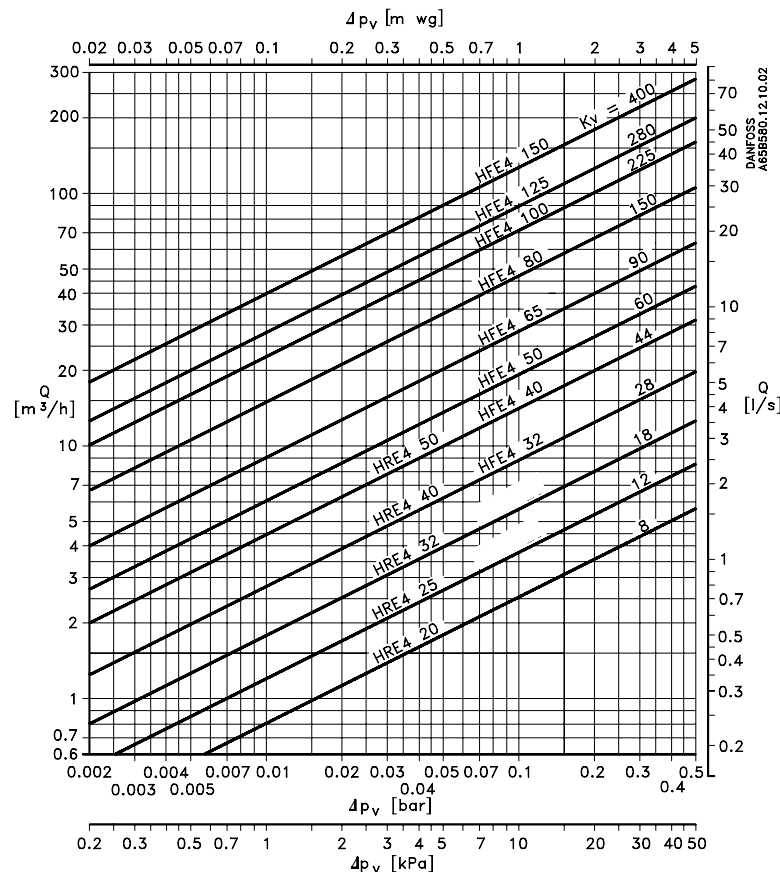
4-way valves

Valve	Connectors	$R_p$	¾	1	1¼	1½	2					
	Flanges	mm	20	25	32	40	50	65	80	100	125	150
Max. differential pressure (bar)	HRE	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
	HFE	-	-	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
$k_{vs}$ m³/h	HRE 4	8	12	18	28	44						
	HFE 4	-	-	28	44	60	90	150	225	280	400	

Capacity

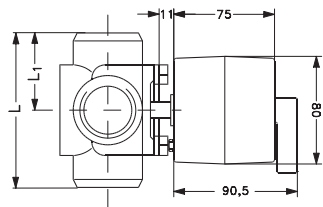


Water capacities for HRE 3 and HFE 3



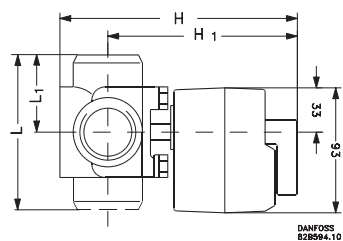
Water capacities for HRE 4 and HFE 4

Dimensions



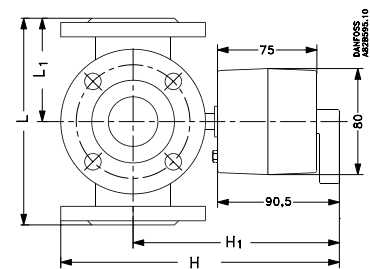
HRE 3, HRE 4

Sizes	H mm	H <sub>1</sub> mm	L mm	L <sub>1</sub> mm	a ISO 7/1	Actuator
DN 20	169	136	105	52.5	R <sub>p</sub> ¾	AMB 162 AMB 182
DN 25	169	136	108	54	R <sub>p</sub> 1	
DN 32	173	138	115	57.5	R <sub>p</sub> 1¼	
DN 40	177	140	120	60	R <sub>p</sub> 1½	
DN 50	192	146	156	78	R <sub>p</sub> 2	



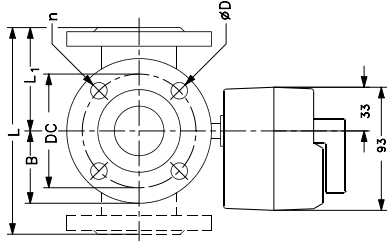
HFE 3

Sizes	H mm	H <sub>1</sub> mm	L mm	L <sub>1</sub> mm	B mm	DC mm	Ød mm	n	Actuator
DN 20	184	139	140	70	45	65	11.5	4	AMB 162 AMB 182
DN 25	189	139	150	75	50	75	11.5	4	
DN 32	200	140	160	80	60	90	15	4	
DN 40	205	140	175	88	65	100	15	4	
DN 50	221	151	195	98	70	110	15	4	
DN 65	239	159	200	100	80	130	15	4	
DN 80	265	170	235	118	95	150	18	4	
DN 100	285	180	265	133	105	170	18	4	
DN 125	309	189	300	150	120	200	18	8	
DN 150	326	194	350	175	133	225	18	8	



HFE 4

Sizes	H mm	H <sub>1</sub> mm	L mm	L <sub>1</sub> mm	B mm	DC mm	Ød mm	n	Actuator
DN 32	200	140	160	80	60	90	15	4	AMB 162 AMB 182
DN 40	205	140	175	88	65	100	15	4	
DN 50	221	151	195	98	70	110	15	4	
DN 65	239	159	200	100	80	130	15	4	
DN 80	265	170	235	118	95	150	18	4	
DN 100	285	180	265	133	105	170	18	4	
DN 125	309	189	300	150	120	200	18	8	
DN 150	326	194	350	175	133	225	18	8	



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