

H-Series Motorised Valves

# Shoe and Paddle Type

all valves are built for **top performance**

- Available in 2-port, 3-port diverter and 3-port mid-position versions
- Interchangeable actuators
- Available as separate valve bodies and actuators or in convenient sets
- For ease of installation and serviceability, actuators are fitted to the valve bodies on site at time of installation
- Wide range of valve body sizes



**80+**

years of innovation

Constantly innovating since 1933, Danfoss is a name you can trust to bring you the best in controls technology.



# Motorised Control Valves H-Series - Shoe Type



- Available in 2-port, 3-port diverter and 3-port mid-position versions
- Wide range of valve body sizes
- Interchangeable actuators

For central heating and hot water circulation in wet domestic central heating systems.

H-series 'shoe' valves are available in 2-port and 3-port versions in a wide range of sizes for both copper and iron pipework. Actuators for mid-position, diverter and 2-port on/off applications complete the range.

Valve bodies and actuators may be purchased separately or in convenient sets. For ease of installation and serviceability, assembly of the actuator to the valve body is made on site, using the screws provided.

The high capacity bodies incorporate two self-cleaning positive shut-off shoes. Flow through the 2-port valves can be in either direction.

The spring return actuators have auxiliary switches and one metre of cable with industry standard wire colours. A lever enables the valves to be opened manually, useful when filling the system.

Danfoss valve actuators are designed for direct in-service replacement of actuators on other makes of motorised valves (see compatibility chart).



Valve Size and Connection Details	Complete Valve Body & Actuator <sup>(4)</sup>				Valve Body Only	
	Mid Position <sup>(1)</sup>		Diverter <sup>(2)</sup>		Type	Code No
	Type	Code No	Type	Code No		
22mm (ext. compression)	HS3	<b>087N661300</b>	HS3D	<b>087N661400</b>	HSV3	<b>087N659900</b>

Notes: (1) Includes HSA3 Actuator  
(2) Includes HSA3D Actuator

Valve Size and Connection Details	Complete Valve Body & Actuator <sup>(5)</sup>		Actuator Only		Valve Body Only	
	Type	Code No	Type	Code No	Type	Code No
	22mm (ext. compression)	HP22	<b>087N660900</b>	HPA2	<b>087N657900</b>	HPV22
28mm (ext. compression)	HP28	<b>087N661100</b>	HPA2	<b>087N657900</b>	HPV28	<b>087N659800</b>
28mm (ext. compression)	HP28C <sup>(3)</sup>	<b>087N661200</b>	HPA2C	<b>087N658000</b>	HPV28	<b>087N659800</b>
15mm (int. compression)	HP15	<b>087N660800</b>	HPA2	<b>087N657900</b>	HPV15	<b>087N659600</b>
3/4" BSP (female)	HP0.75	<b>087N660200</b>	HPA2	<b>087N657900</b>	HPV0.75	<b>087N659400</b>
1" BSP (female)	HP1.0	<b>087N660400</b>	HPA2	<b>087N657900</b>	HPV1.0	<b>087N659500</b>

Notes: (3) For Gravity Hot Water Systems

Motorised Valve Actuators					
Description	Code No	Type	Voltage	Aux. Switch Detail	
3-Port Mid-Position Valve Actuator	<b>087N658700</b>	HSA3	230 Vac ±15%	SPST <sup>(4)</sup>	
3-Port Diverter Valve Actuator	<b>087N658900</b>	HSA3D	230 Vac ±15%	SPST Aux. Sw.	
2-Port Valve Actuator (normally closed)	<b>087N657900</b>	HPA2	230 Vac ±15%	SPST (volt free)	
2-Port Valve Actuator (normally closed)	<b>087N658000</b>	HPA2C	230 Vac ±15%	SPDT Aux. Sw.	

Notes:

(4) Linked Internally

(5) Max flow temp 95°C, max working pressure 10 bar, max differential pressure 15mm, 22mm, 1/2" & 3/4" = 1.0 bar; 28mm & 1" = 0.7bar

Compatibility Chart Danfoss Actuators & Valve Bodies are interchangeable with other makes				
Danfoss Code	Landis & Gyr (ext.)	Landis & Gyr (int.)	Pegler Sunvic	Potterton
HSA3 Actuator	SK3	SK3	SD1701/2701	PMV3
HSV3 Valve - 22mm	LT8322	LT2701 <sup>(6)</sup>	EDT1702	PMV3
HPA2 Actuator	SK2	SK2	SZ1301/2301	PMV2
HPV22 - 22mm	LL8222	LL4453 <sup>(6)</sup>	EML3454	PMV2
HPV28 - 28mm	-	33 4501	EML3503	-

Notes: (6) These references are for older types of L&G valve bodies, having internal compression fittings - some pipework change will be required.

# Motorised Control Valves H-Series - Paddle Type



Valve Size and Connection Details	Complete Valve Body & Actuator <sup>(4)</sup>				Valve Body Only	
	Mid Position <sup>(1)</sup>		Diverter <sup>(2)</sup>		Type	Code No
	Type	Code No	Type	Code No		
22mm (ext. compression)	HS3B	<b>087N664600</b>	HS3DB22	<b>087N665300</b>	HSV3B22	<b>087N662500</b>
28mm (ext. compression)	HS3B28	<b>087N665100</b>	HS3DB28	<b>087N666000</b>	HSV3B28	<b>087N663000</b>
15mm/1/2" BSP (int. compression)	HS3B15	<b>087N665000</b>	HS3DB15	<b>087N665900</b>	HSV3B15	<b>087N662900</b>
3/4" BSP (female)	HS3B0.75	<b>087N664800</b>	HS3DB0.75	<b>087N665400</b>	HSV3B0.75	<b>087N662600</b>
1" BSP (female)	HS3B1.0	<b>087N664900</b>	HS3DB1.0	<b>087N665800</b>	HSV3B1.0	<b>087N662800</b>

Notes:

(1) Includes HSA3 Actuator

(2) Includes HSA3D Actuator

Valve Size and Connection Details	Complete Valve Body & Actuator <sup>(4)</sup>		Actuator Only		Valve Body Only	
	Type	Code No	Type	Code No	Type	Code No
	22mm (ext. compression)	HP22B	<b>087N664200</b>	HPA2	<b>087N657900</b>	HPV22B
28mm (ext. compression)	HP28B	<b>087N664400</b>	HPA2	<b>087N657900</b>	HPV28B	<b>087N662400</b>
28mm (ext. compression)	HP28BC <sup>(3)</sup>	<b>087N664500</b>	HPA2C	<b>087N658000</b>	HPV28B	<b>087N662400</b>
15mm/1/2" BSP (int. compression)	HP15B	<b>087N664000</b>	HPA2	<b>087N657900</b>	HPV15B	<b>087N662100</b>
3/4" BSP (female)	HP0.75B	<b>087N663400</b>	HPA2	<b>087N657900</b>	HPV0.75B	<b>087N661800</b>
1" BSP (female)	HP1.0B	<b>087N663700</b>	HPA2	<b>087N657900</b>	HPV1.0B	<b>087N662000</b>

Notes:

(3) For Gravity Hot Water Systems

(4) Max flow temperature 95°C, max working pressure 10 bar, max differential pressure 15mm, 22mm, 1/2" & 3/4" = 1.0 bar; 28mm & 1" = 0.7bar

Motorised Valve Actuators				
Description	Code No	Type	Voltage	Aux. Switch Detail
3-Port Mid-Position Valve Actuator	<b>087N658700</b>	HSA3	230Vac ±15%	SPST <sup>(5)</sup>
3-Port Diverter Valve Actuator	<b>087N658900</b>	HSA3D	230Vac ±15%	SPST Aux. Sw.
2-Port Valve Actuator (normally closed)	<b>087N657900</b>	HPA2	230Vac ±15%	SPST (volt free)
2-Port Valve Actuator (normally closed)	<b>087N658000</b>	HPA2C	230Vac ±15%	SPDT Aux. Sw.

Notes: (5) Linked Internally

- Available in 2-port, 3-port diverter and 3-port mid-position versions
- Wide range of valve body sizes
- Interchangeable actuators

For central heating and hot water circulation in wet domestic central heating systems.

H-series 'paddle' valves are available in 2-port and 3-port versions in a wide range of sizes for both copper and iron pipework. All valves offer 100% tight shut-off. Actuators for mid-position, diverter and 2-port on/off applications complete the range.

Valve bodies and actuators may be purchased separately or in convenient sets.

For ease of installation and serviceability, assembly of the actuator to the valve body is made on site, using the screws provided.

The spring return actuators have auxiliary switches and one metre of cable with industry standard wire colours. A lever enables the valves to be opened manually, useful when filling the system.

Danfoss valve actuators are designed for direct in-service replacement of actuators on other makes of motorised valves (see compatibility chart).



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