HCP/HCPA

Solenoid Valve - Model PCN - 1/2”-2”
2/2 Normally Closed

STEAM

- Specification & Dimensions: **Pages 2-3**
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Solenoid Valve - 2/2 - Normally Closed

Benefits & Features

- 1.5-12bar. Special version 1.5-40bar (water)
- Large internal orifice for high flow applications
- Corrosion resistant 316 stainless steel
- Steam, hot water, ambient water, hot fluids, oil
- Manual override option
- Anti-water hammer option
- IP65, IP68 safe area

Specification

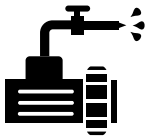
Configuration	Pilot operated diaphragm design
Port Sizes	½”-4” BSP/NPT or flanged
Orifice	see table below
Kv	see table below
Body	304 or 316 stainless steel
Media	Steam, hot water, ambient water, hot fluids, oil. Subject to material compatibility
Pressure ranges	see table below
Seals	PTFE + SILICON (-10°C to +180°C), VITON (-10°C to +180°C)

Technical Data - Steam and hot fluids

				Min.	Max. Operating Pressures Bar		Kv m3/Hr
Model	**Body Material**	**Port**	**Orifice MM**		AC	DC	
HCP29	CF8/CF8M	½”	17	1.5	12	12	2.3
HCP39	CF8/CF8M	¾”	20	1.5	12	12	4
HCP49	CF8/CF8M	1”	25	1.5	12	12	6
HCP69	CF8/CF8M	1 ½”	36	1.5	12	12	13
HCP89	CF8/CF8M	2”	48	1.5	12	12	13.6

Technical Data - High pressure water

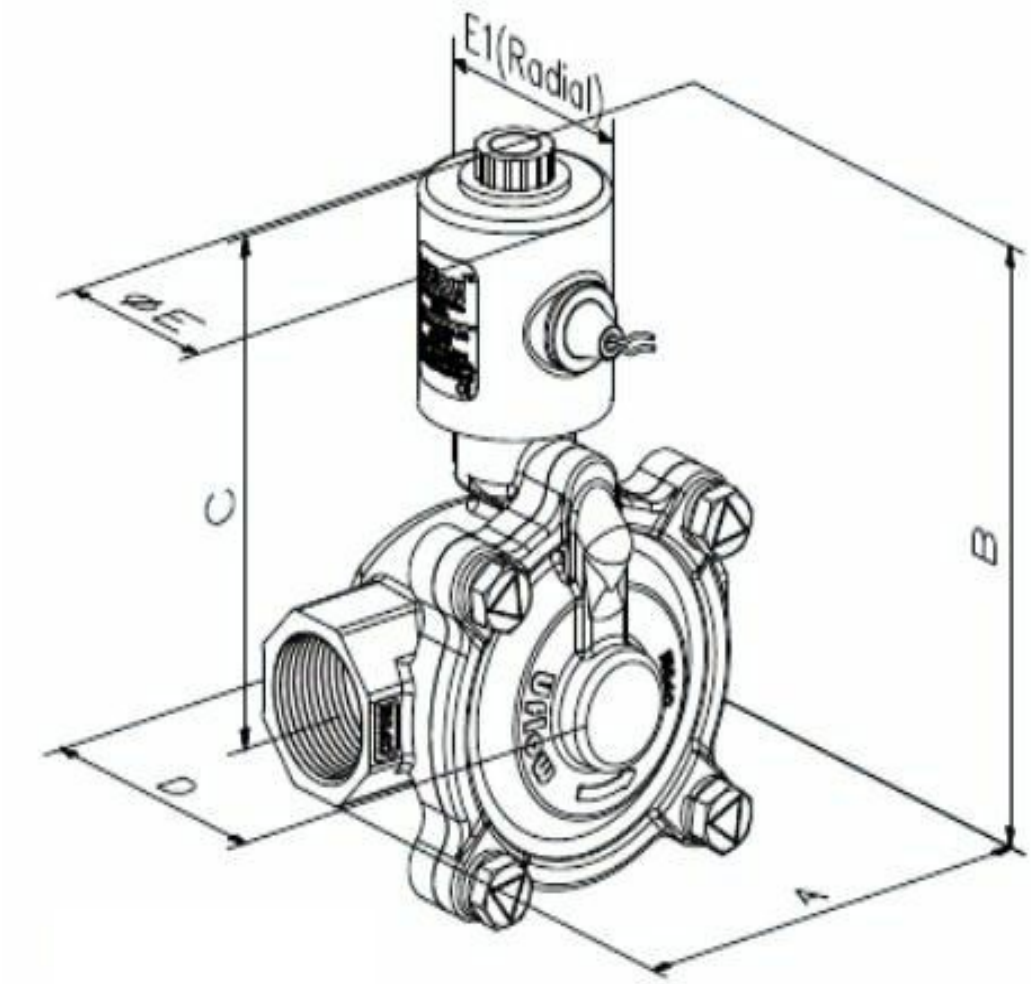
				Min.	Max. Operating Pressures Bar		Kv m3/Hr
Model	**Body Material**	**Port**	**Orifice MM**		AC	DC	
HCP2A	CF8/CF8M	½”	17	1.5	40	40	2.3
HCP3A	CF8/CF8M	¾”	20	1.5	40	40	4
HCP4A	CF8/CF8M	1”	25	1.5	40	40	6
HCP6A	CF8/CF8M	1 ½”	36	1.5	40	40	13
HCP8A	CF8/CF8M	2”	48	1.5	40	40	13.6



Solenoid Valve - 2/2 Normally Closed

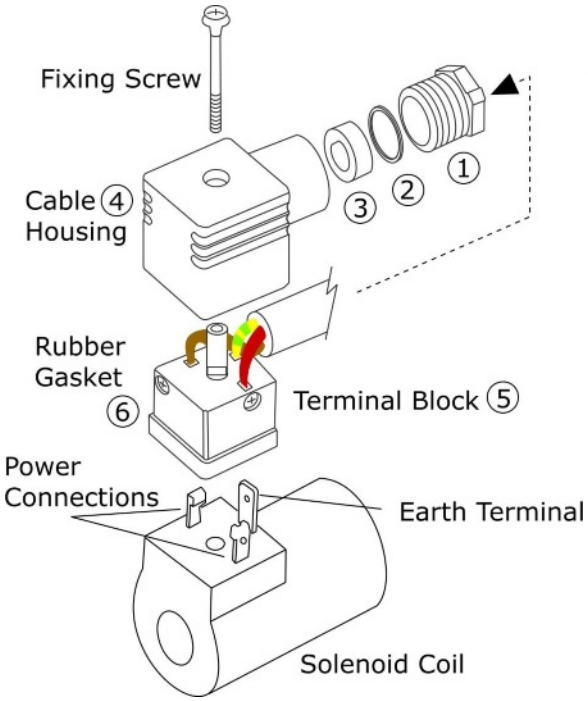
Dimensions

Model	Port Size	Dimensions mm					
		A	B	C	D	E	E1
HCP29	½"	73	127	98	68	44	58
HCP39	¾"	81	136	103	73	44	58
HCP49	1"	104	152	112	80	44	58
HCP69	1 ½"	108	173	117	98	44	58
HCP89	2"	132	192	126	116	44	58



IP65 SAFE AREA INSTALLATION & MAINTENANCE

DIN electrical socket connectors to protect solenoid coil terminals and wiring.



Section 1: DIN Connector Assembly

- Insert the electrical power cable through the gland assembly (1,2,3)
- Push the cable through cable housing (4)
- Connect power and earth cables to terminal block 5
- Push terminal block (5) backwards, inside cable housing (4)
- Place rubber gasket (6) on terminal block (5) front face
- Push terminal block onto solenoid coil terminals
- Push fixing screw through complete assembly
- Tighten fixing screw with small screwdriver
- Do not over tighten
- Tighten cable gland (1,2,3) by hand

Section 2: How to install Solenoid Valves

Solenoid Valves can normally be installed and operate in any orientation. However, certain models are designed to operate in horizontal installations. Please contact Red Dragon for further information.

Installation Procedure:

Check that the Solenoid Valve is the correct product ordered for the application:

- Isolate the site electrical power supply
- Isolate the site media supply (dependant on the application)...air, water, steam etc. Leave until cool/safe.
- Insert the valve onto the pipe, ensuring that the flow direction is observed.....IN for incoming media, or an arrow stamped on the valve body.
- Ensure that the pipe connections are free from burrs or loose pipe thread tape
- Tighten all pipe joints
- Connect electrical power supply via DIN electrical socket connector, as detailed in section 1
- Ensure that DIN connector is properly connected to solenoid coil and the gasket is installed correctly
- Apply media pressure and check for leaks

Section 3: Maintenance Procedure for Solenoid Valves

In the unlikely event of a valve malfunction, or routine maintenance, follow these instructions:

- Isolate the site electrical power supply
- Isolate the site media supply (dependant on the application)...air, water, steam etc.
- Remove the solenoid coil by unscrewing the coil retention nut anti-clockwise
- Remove the coil tube stem by unscrewing anti-clockwise
- Carefully remove the plunger assembly (inside the coil stem)
- Check the plunger assembly for damage or worn seals
- Check the face inside the coil stem for foreign particles that could prevent correct operation
- For Pilot Diaphragm Solenoid Valves: remove the top cover housing and check the diaphragm for damage and blocked transfer port.
- Re-assemble the valve in reverse order, ensuring that all parts are cleaned and assembled correctly

Uflow Automation

Measure Monitor Control

Part Number Identification Chart

M	C	N	8	D	3	F	BLANK

TYPE

P	PILOT OPERATED
M	SEMI LIFT
J	PULSE JET
H	PISTON OPERATED
D	2WAY DIRECT ACTING
T	3WAY DIRECT ACTING
F	FAST ACTING
Y	ANGLE SEAT VALVE

BODY MATERIAL

C	CF8/SS304
M	CF8M/SS316
L	CF3M/SS316L
B	BRASS
A	ALUMINIUM
N	NYLON
P	PLASTIC

SEAL MATERIAL

N	NITRILE
E	EPDM
V	VITON
P	PTFE + SILICONE
S	SILICONE
R	NEOPRINE
H	HYTREL

PORT SIZE

0	1/8"
1	1/4"
2	1/2"
3	3/4"
4	1"
5	1 1/4"
6	1 1/2"
7	3/8"
8	2"
9	2 1/2"
A	3"
B	4"
C	6"

PRESSURE RANGE (MIN-MAX)

0	0-350mbar
1	0-500mbar
2	0-2 bar
3	0-7 bar
4	0-10 bar
5	0-16 bar
6	0.3-10 bar
7	0.5-8.5 bar
8	0.5-12 bar
9	1.5-12 bar
A	1.5-40 bar
B	0-25 bar
C	0-150 bar
D	0-4 bar
E	0-3 bar
F	0-1 bar
G	1-20 bar

PLUNGER DIA

BLANK	14mm
0	10mm
1	13mm
2	16mm
3	18mm
8	30mm

VALVE POSITION

BLANK	NC
Z	NO
M	Manually Override
S	Muffler

PORT CONNECTION

BLANK	BSP
N	NPT
F	FLANGE
T	TRICLOVER

MCN8D3F
2" UMD Diaphragm Solenoid Valve With Flange (0-4Kg) (18mm)