

CHS8W

**Specifications, Applications,
Service Instructions & Parts****CHS8W SOLENOID
VALVE 1/2"
(13mm) PORT****1/2" BW for refrigerants****INTRODUCTION**

This heavy-duty CHS8W refrigeration solenoid valve is compact and pilot-operated. It is now features a higher pressure rating and maximum opening pressure differential (MOPD) suitable for CO₂ and other approved refrigerants. The CHS8W pilot cartridge features Hansen's new robust solenoid operator that features a rugged stainless steel housing and is sealed with a reliable aluminum gasket. A dirt controlling Teflon piston seal helps prevent sticking. The valve body has improved, erosion resistant flow passages. A factory installed internal strainer helps prevent dirt from passing through the valve. The CHS8W is used to provide on-off control of refrigerant flow. When the coil is energized, a pressure difference across the piston opens the valve seat. When the coil is de-energized, a spring closes the main Teflon seat to stop all flow.

APPLICATIONS

The CHS8W is ideal as a liquid line solenoid valve. this valve is suitable for R22, R134a, CO₂, ammonia and other compatible refrigerants. The most common use of this valve is to control flow to: suction stop valve pilot lines, expansion devices, recirculating liquid overfeed evaporators, hot gas defrost, and small capacity evaporator suction. In addition, the HS8 makes an ideal noncondensable gas (air) purge point solenoid valve, and is recommended for use with Hansen AUTO-PURGER.

MAXIMUM RATINGS, AMMONIA

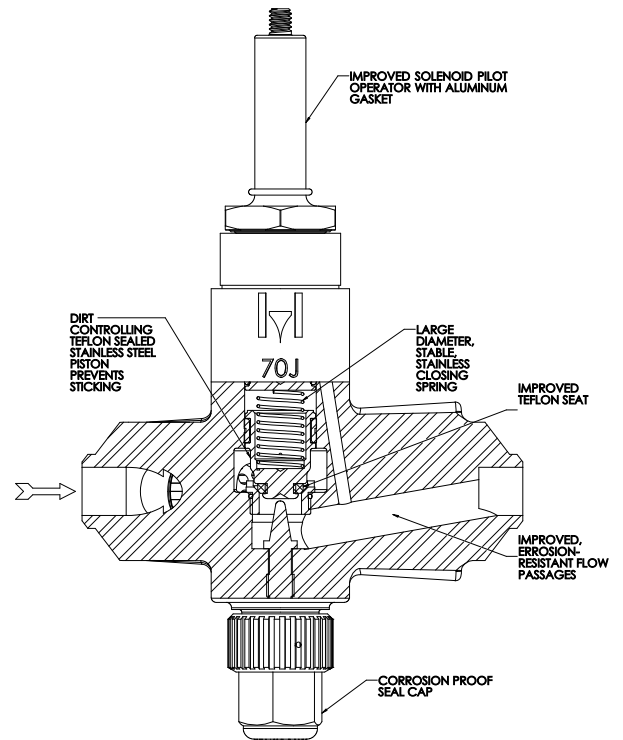
Liquid, Receiver Pressure: 110 Tons (387 kW)

Recirculation, 4 to 1: 36 Tons (127 kW)

Hot Gas: 10 Tons (35 kW)

Suction: 5.0 Tons (18 kW)

Flow Factor: Cv = 2.5 (2.2 Kv)

KEY FEATURES**ADDITIONAL FEATURES**

Low-wattage coil

MOPD 580 psi (40 bar) standard

Teflon main & pilot seats

Integral strainer

Heavy-duty construction

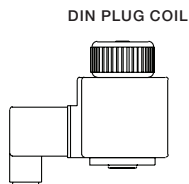
MATERIAL SPECIFICATIONS

Body: - Forged Steel: ASTM A350grade LF2
Bonnet Cartridge: Steel, plated
Piston: Stainless steel,
Teflon seal Plunger: Stainless steel
Pilot Orifice: Stainless Steel
Seats: Teflon, pilot and main
Valve Seats: Replaceable 303 Stainless steel
MOPD: AC coils only 580 psi (40 bar) standard
Safe Working Pressure of 754 psig (54 bar)
Operating Temperature: -60°F to +240°F (-50°C to +115°C)

ELECTRICAL

The coil draws 16 watts and will operate properly between 85% and 110% of rated voltage (Coils with DIN plug contact the factory DIN is standard. All coils are totally encapsulated and meet IP32 requirements. The coil should only be energized while on the solenoid tube. Otherwise, immediate coil burnout may occur. To avoid bending the solenoid tube, remove the coil from valve before connecting any electrical conduit.

COIL OPTIONS

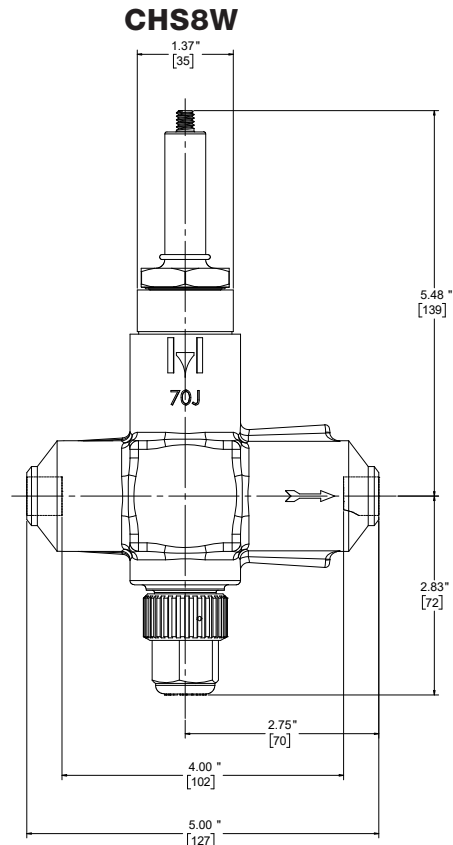


INSTALLATION

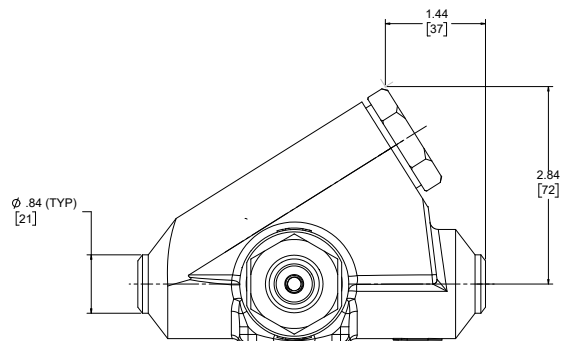
Protect the interior of the valve from dirt before and during installation. A integral inlet strainer is installed from the factory. Allow 2.25" (57 mm) above the valve for coil removal and 3" (76 mm) for strainer screen removal. The arrow on the valve body must point in the direction of system flow. If a pressure reversal can occur use a check valve on the outlet side of the CHS8W. During welding, the manual opening stem should be opened upward several turns to protect the Teflon seat from weld heat.

INSTALLATION DIMENSIONS

INCHES (MILLIMETERS)

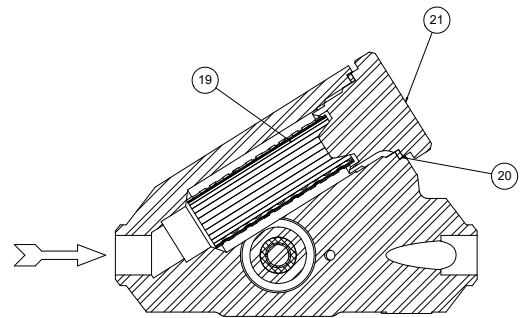
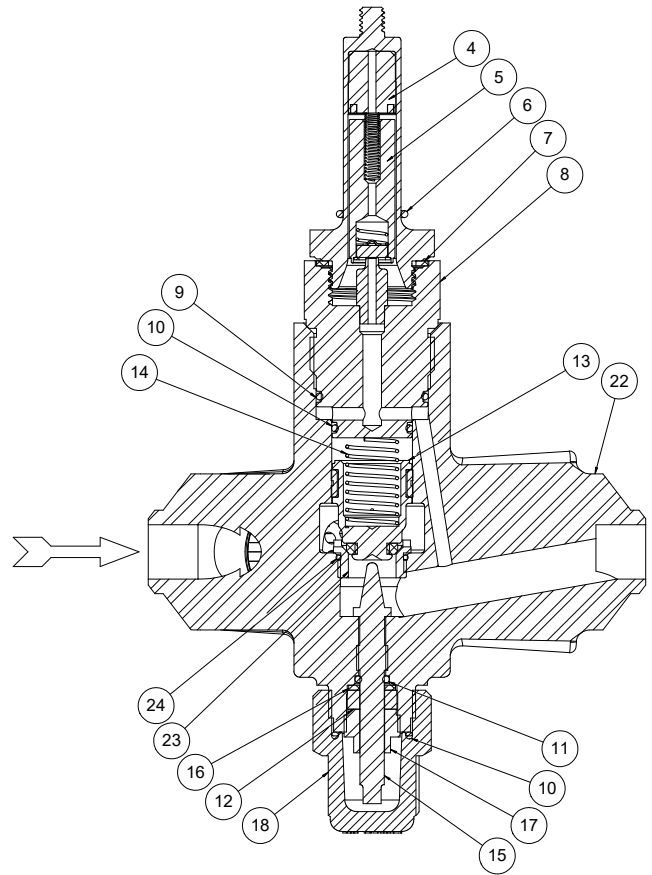


CHS8W TOP VIEW



PARTS LIST

ITEM	DESCRIPTION	QTY.	KIT NO.
	Gasket kit (CHS8W) :		75-1523
	<i>Above kit consists of:</i>		
7	SOLENOID TUBE ALUMINIUM GASKET	1	
9	UPPER BODY O-RING	1	
10	LOWER BODY O-RING	2	
11	O-RING PACKING	1	
12	PACKING	1	
16	PACKING WASHER	1	
17	PACKING NUT	1	
24	SEAT O-RING	1	
6	COIL O-RING	1	
	Bonnet Cartridge kit (CHS8W) :		75-1524
	<i>Above kit consists of:</i>		
8	CARTRIDGE ASSEMBLY	1	
7	SOLENOID TUBE ALUMINIUM GASKET	1	
4	SOLENOID TUBE	1	
5	PLUNGER ASSEMBLY	1	
6	COIL O-RING	1	
	Gasket kit	1	
	Piston Assembly kit (CHS8W) :		75-1525
	<i>Above kit consists of:</i>		
13	PISTON ASSEMBLY	1	
14	CLOSING SPRING	1	
	Gasket kit	1	
	Seat kit (CHS8W) :		75-1526
	<i>Above kit consists of:</i>		
23	SEAT RING	1	
	REMOVAL TOOL	1	
	Seal Cap kit (CHS8W) :		75-1527
	<i>Above kit consists of:</i>		
18	SEAL CAP	1	
10	LOWER BODY O-RING	1	
	Strainer Screen kit (CHS8W) :		75-1528
	<i>Above kit consists of:</i>		
19	SCREEN ASSEMBLY, 100 MESH	1	
20	STRAINER CAP GASKET	1	
15	STEM	1	
21	STRAINER CAP	1	
22	BODY	1	



SERVICE AND MAINTENANCE

Failure to open: Wrong coil voltage; low line voltage; electric controlling device is not switching; coil is burned-out; inlet/outlet pressure differential is too high; piston or solenoid coil plunger is jammed closed with dirt.

Failure to close: Electric controlling device is not switching; manual-opening stem is turned in; piston or solenoid coil plunger is jammed open by dirt; damage or dirt at main valve seat or pilot valve seat.

Before opening the valve for service, be sure it is isolated from the system and all refrigerant is removed. Disconnect electrical power from coil. Remove the coils by unscrewing the coil knob. To remove internal parts, use a large wrench to slowly unscrew the bonnet cartridge (15), proceeding cautiously to detect any remaining refrigerant inside the valve. Then, remove the closing spring (17) and piston (16). Check for dirt on the piston (16), Teflon piston seal, and seat. Clean and reinstall or install new parts. Check the upper (9) and lower (10) body O-rings and replace if necessary. Use refrigerant oil or grease when installing the O-rings.

CAUTION

Hansen valves are for refrigeration systems only. These instructions must be read completely and understood before selecting, using, or servicing these valves. Only knowledgeable, trained refrigeration technicians should install, operate, or service these valves. Stated temperature and pressure limits should not be exceeded. Bonnets, solenoid tubes, etc., should not be removed from valves unless the system has been evacuated to zero pressure. See also Safety Precautions in the current List Price Bulletin and the Safety Precautions sheet supplied with product. Escaping refrigerant can cause injury, especially to the eyes and lungs.

WARRANTY

All Hansen products, except electronics, are guaranteed against defective materials or workmanship for one year F.O.B. factory. Electronics are guaranteed against defective materials or workmanship for 90 days F.O.B. factory. No consequential damages or field labor is included.

ORDERING INFORMATION

Connection Style & Sizes Inches (Millimeters)	
STYLE	BW STD
CHS8W	1/2" (13))

Encapsulated solenoid coil must be ordered separately. Standard coil is 50/60Hz 208/230 volts with DIN Plug and Connector.

TYPICAL SPECIFICATIONS

“Refrigerant solenoid valves shall have encapsulated, watertight coils, Teflon seats, steel bodies, spring closing pilot and main valve seats, and be suitable for a safe working pressure of 754 psig (52 bar) as manufactured by Hansen Technologies Corporation or approved equal.”



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