
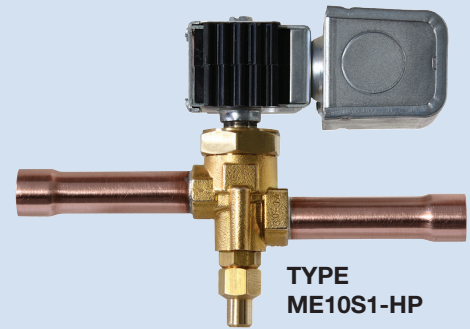


E10S1-HP SERIES SOLENOID VALVES

- For Refrigerants 22, 134a, 401A, 402A, 404A, 407C, 407F, 410A, 507
- Compact, Pilot Operated, Disc Construction
- Mount Horizontally, on Side, or in a Vertical Line
- MKC-1 and OMKC-1 Coils, Class F
- 



APPLICATION

Sporlan's **Type E10S1 Series** are compact solenoid valves with pilot operated disc construction for refrigeration and air conditioning. These valves **may be mounted horizontally, on their side or in a vertical line**. They are suitable for suction line service because very low pressure differential, 1 psi, is required for full operation.

The **Type E10S1 Series** solenoid valves features extended solder type connections as standard and the MKC-1 coil. One important benefit to the user is that all valves in the "E10" series can be installed without disassembly using either low or no silver content brazing alloy.

The MKC-1 and OMKC-1 coils are Class "F" temperature rated and are provided as standard, therefore a high temperature coil is not required for discharge service.

ORDERING INSTRUCTIONS

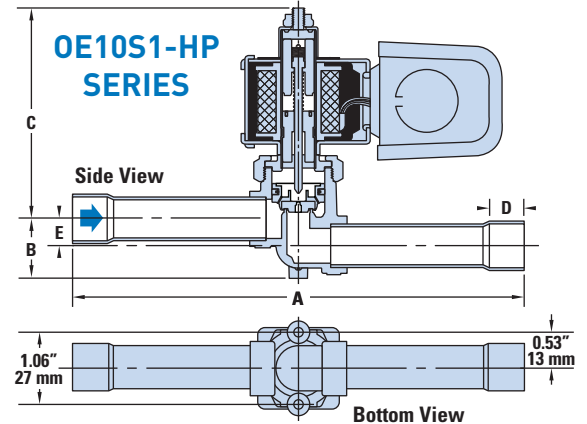
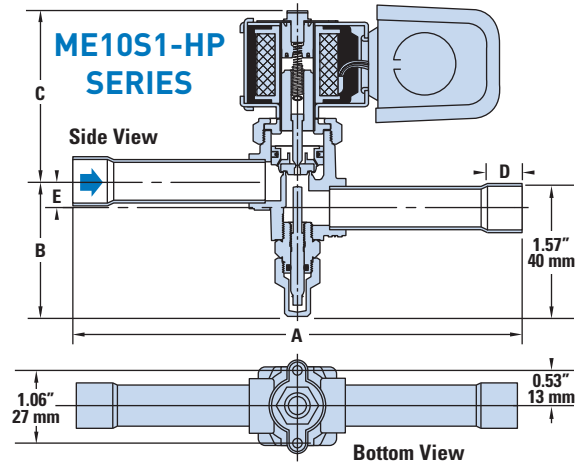
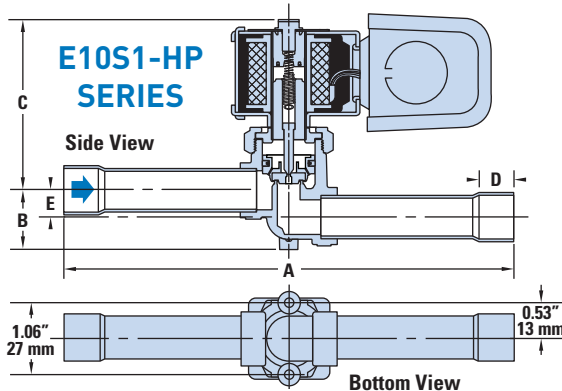
When ordering complete valves, specify Valve Type, Connections, Voltage and Cycles.

When ordering Body Assembly, specify Valve Type and Connections.

When ordering Coil Assembly ONLY, specify Coil Type, Voltage and Cycles.

Example: MKC-1 120/50-60.

DIMENSIONS



Inches (mm)

VALVE SERIES	TYPE	A	B	C	D	E
E10S1-HP	E10S140-HP	5.00 (127)	0.86 (22)	2.52 (64)	0.38 (10)	0.39 (10)
	E10S150-HP	6.49 (165)	0.86 (22)	2.52 (64)	0.50 (13)	0.39 (10)
	ME10S140-HP	5.00 (127)	1.95 (50)	2.52 (64)	0.38 (10)	0.39 (10)
	ME10S150-HP	6.49 (165)	1.95 (50)	2.52 (64)	0.50 (13)	0.39 (10)
	OE10S140-HP	5.00 (127)	0.86 (22)	3.03 (77)	0.38 (10)	0.39 (10)
	OE10S150-HP	6.49 (165)	0.86 (22)	3.03 (77)	0.50 (13)	0.39 (10)

*For Manual Lift Stem add 1.10" (28).



ENGINEERING YOUR SUCCESS.

SPECIFICATIONS - E10S1-HP SERIES

TYPE	COIL TYPE	STANDARD CONNECTION Inches	Cv	PORT SIZE Inches	MOPD psi (bar)		NOMINAL LIQUID CAPACITIES Tons (kW) of Refrigerant										STANDARD COIL RATINGS	
							REFRIGERANTS											
							22	134a	401A	402A	404A	407C	407F	410A	507			
							Pressure Drop – psi (bar)										VOLTS/CYCLES	WATTS
AC	DC	3 (0.20)	2 (0.14)	2 (0.14)	3 (0.20)	3 (0.20)	3 (0.20)	3 (0.20)	5 (0.34)	3 (0.20)	AC	DC						
E10S140-HP	MKC-1	1/2 ODF x 1/2 ODF	2.06	5/16	*450 (31)	450 (31)	10.9 (38.3)	8.3 (29.2)	8.9 (31.3)	7.2 (25.3)	7.2 (25.3)	10.0 (35.2)	10.4 (36.6)	13.3 (46.8)	7.1 (25.0)	24/50-60 120/50-60 208/50-60 *208-240/50-60 120-208-240/50-60	10	15
ME10S140-HP																		
E10S150-HP		5/8 ODF x 5/8 ODF																
ME10S150-HP																		
OE10S140-HP	OMKC-1	1/2 ODF x 1/2 ODF	2.06	5/16	400 (28)	400 (28)	10.9 (38.3)	8.3 (29.2)	8.9 (31.3)	7.2 (25.3)	7.2 (25.3)	10.0 (35.2)	10.4 (36.6)	13.3 (46.8)	7.1 (25.0)	24/50-60 120/50-60 208/50-60 *208-240/50-60 120-208-240/50-60	10	15
OE10S150-HP		5/8 ODF x 5/8 ODF																

E10S1-HP and ME10S1-HP maximum rated pressure (MRP) is 700 psig (48 bar). OE10-HP maximum rated pressure (MRP) is 650 psig (45 bar). Dual voltage 4-wire coils, 120-208-240/50-60 are available at slight additional cost. For other voltages and cycles, consult Sporlan, Washington, MO 63090. Coils are available with junction box. For coil with conduit boss check for availability.

*If operating the E10S1-HP Series Valves with 208-240/50-60 coil at 85% voltage and hot coil, then the MOPD may be less than shown in above table. If requirement is to operate with 208 AC volts at 85% AC volts and hot coil, then use the MKC-1 208/50-60 coil. One can use the 208-240 AC coil with 208 AC volts when operating at full voltage and/or cold coil.

REFRIGERANT LIQUID TEMPERATURE CORRECTION FACTORS

REFRIGERANT LIQUID TEMPERATURE °F (°C)	Correction Factor													
	40 (5)	50 (10)	60 (15)	70 (21)	80 (27)	90 (32)	100 (38)	110 (43)	120 (49)	130 (54)	140 (69)			
R-22	1.33	1.27	1.22	1.17	1.11	1.06	1.00	0.94	0.89	0.83	0.77			
R-134a	1.39	1.33	1.26	1.20	1.13	1.07	1.00	0.93	0.87	0.80	0.73			
R-401A	1.34	1.29	1.23	1.17	1.12	1.06	1.00	0.94	0.88	0.82	0.75			
R-402A	1.57	1.48	1.39	1.29	1.20	1.10	1.00	0.90	0.79	0.68	0.56			
R-404A	1.58	1.49	1.39	1.30	1.20	1.10	1.00	0.90	0.79	0.68	0.57			
R-407C	1.45	1.38	1.30	1.23	1.15	1.08	1.00	0.92	0.84	0.75	0.67			
R-407F	1.42	1.35	1.28	1.21	1.14	1.07	1.00	0.93	0.85	0.78	0.70			
R-410A	1.45	1.38	1.30	1.23	1.15	1.08	1.00	0.92	0.83	0.74	0.64			
R-507	1.54	1.45	1.36	1.27	1.18	1.09	1.00	0.90	0.80	0.69	0.56			

LIQUID CAPACITIES - IP/METRIC

REFRIGERANT	TONS OF REFRIGERATION					kW OF REFRIGERATION				
	PRESSURE DROP - psi*					PRESSURE DROP - bar*				
	1	2	3	4	5	0.07	0.1	0.2	0.3	0.4
R-22	6.26	8.89	10.9	12.6	14.2	22.0	26.6	37.7	46.3	53.5
R-134a	5.84	8.29	10.2	11.8	13.2	20.6	24.8	35.2	43.2	50.0
R-401A	6.28	8.91	10.9	12.6	14.2	22.1	26.6	37.8	46.4	53.6
R-402A	4.12	5.86	7.19	8.32	9.3	14.5	17.5	24.9	30.5	35.3
R-404A	4.14	5.87	7.21	8.34	9.3	14.6	17.6	24.9	30.6	35.4
R-407C	5.75	8.17	10.0	11.6	13.0	20.2	24.4	34.7	42.6	49.2
R-407F	5.96	8.46	10.4	12.0	13.4	21.0	25.3	35.9	44.1	51.0
R-410A	5.93	8.41	10.3	12.0	13.4	20.8	25.2	35.7	43.8	50.7
R-507	4.05	5.75	7.06	8.17	9.14	14.3	17.2	24.4	30.0	34.7

*Liquid capacity is based on 110°F (43°C) condensing temperature, 100°F (38°C) liquid temperature and 40°F (5°C) evaporating temperature. For each 10°F (5°C) reduction in evaporating temperature, capacities are reduced by approximately 1.5%.

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