



# MCS-SEH-P

## Description & Specifications



**Part # - MCS-SEH-P**  
 333 Ton Nominal Electric Expansion Valve (EXV) 1 5/8" x 2 1/8" ODF Solder with 20' Cable (Straight Through Configuration)

### Description

The SEH-P are Electronically Operated Step motor flow control valves, intended for the precise control of liquid refrigerant flow. Synchronized signals to the motor provide discrete angular movement, which translates into precise linear positioning of the valve piston. Valve pistons and ports are uniquely characterized, providing improved flow resolution and performance. The SEH-P valves are easily interfaced with MCS microprocessor based controllers. Therefore, they are applicable on all the same types of systems found in the air conditioning and refrigeration industry as thermostatic expansion valves.

The SEH-P valves modulate by the electronically controlled rotation of a step motor. The step motor drives a gear train and lead screw to position a piston. The piston is used to modulate flow through a port.

The motor is a two phase type driven in the bi-polar mode. Two discrete sets of motor stator windings are powered in sequence to rotate the rotor 3.6 degrees per step. Polarity of the drive signal reverses for each step.

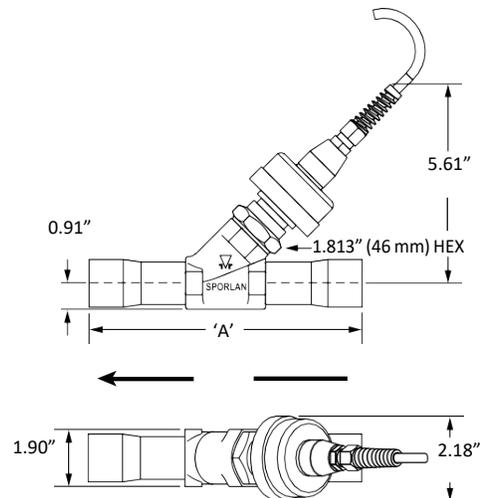
When used with one of the MCS Controls, the valves provide unsurpassed accuracy in resolution of flow and repeatability of position.

### Specifications

Materials of Construction .....	Brass, copper, stainless steel, synthetic seals
Type.....	Permanent magnet bipolar internal (wet) motor
Fluid Temp. Range.....	-50°F to 155°F (-40°C to 68°C)
Ambient Temp. Range .....	-50°F to 140°F (-40°C to 60°C)
Relative Humidity.....	0-100% (Condensing)
Supply Voltage.....	12 volts DC +/-10%
Phase Resistance.....	75 ohms +/-10%
Stepping Current .....	160 mA/winding
Maximum Power.....	3.8 watts
Step Rate.....	200/second (L/R) 400/second recommended
Number of Steps.....	6386 Steps
Maximum Rated Pressure (MRP)...	620 psig (43 bar)
Operating Temperature Range .....	-50°F to 155°F (-45°C to 68° C)
Materials of Construction.....	copper - fittings; brass - valve body; synthetic materials - seating and seals; stainless steel - motor housing, and adaptors
Cable Type - 20'.....	Hermetic 4 lead, 18 AWG, PVC insulation

### Packaging

Ship Weight .....	5.95 lb (approx)
Box Dimensions.....	14" x 12" x 5" (approx)



VALVE	FITTINGS	A
SEH-P	13 X 17 ODF	10.25"(260 mm)

Dimensions in inches (mm)

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