Coil Insulation Class Options Per Valve Series

The coil insulation dictates the maximum temperature the coil can withstand. Gems offers three different Coil Insulations. Class B 130°C, Class F 155°C, and Class H 180°C. There are a few factors that can affect the coil's temperature, including ambient air temperature, media temperature, and time the valve is left energized.

Cycle Time: When valves are left on continuously, they will self-heat. When you think of an incandescent light bulb, after it is left on it gets very hot! Same principle applies to the coil. Whereas a valve that is only cycled intermittently will not generate that much self-heating.

Media Temperature: As the media travels through the valve it may pull some heat away, especially liquids. Air will not absorb as much heat as a liquid would. In addition, metal plumbing will act as a conductor and help pull heat away from the valve and coil. Plastic plumbing will insulate the valve thermally and hold the heat in the valve.

Ambient Air Temperature: The ambient air around the valve will also factor in to how hot the coil will get. If the coil is installed within a small enclosure with little air circulation, it can heat up fast.

It's important to consider these factors when selecting the coil insulation.

selection of the right fit for the application.

M Series

Coil Construction

Option #	
L	Class 130°C (B), Tape-wrapped, lead-wires (18" long)
W	Lead-wires, non-standard length (specify in inches)
P	Class 130°C (B), Tape-wrapped, 4-pin P.C. board mount
Q	Class 130°C (B), Tape-wrapped, .110" spade terminals

E & EH Series

Coil Construction

Option #	
(blank)	Class 130°C (B), Tape-wrapped, lead-wires (12" long)*
W__	Lead-wires, non-standard length (specify in inches)
10	Externally rectified for AC voltages (2 watt and lead-wires only)
1	Class 130°C (B), Encapsulated, lead-wires
5	Class 130°C (B), Encapsulated, .110" spade terminals

G & GH Series

Coil Construction

Option #	
(blank)	Class 130°C (B), Tape-wrapped, lead-wires (12” long)*
W__	Lead-wires, non-standard length (specify in inches)
10	Externally rectified for AC voltages (2 watt and lead-wires only)
1	Class 130°C (B), Encapsulated, lead-wires
5	Class 130°C (B), Encapsulated, .110” spade terminals

A Series

Coil Construction

Option #	
(blank)	Class 130°C (B), Tape-wrapped, lead-wires (18” long)*
W__	Lead-wires, non-standard length (specify in inches)
10	Externally rectified (AC voltage and lead-wires only)
1	Class 130°C (B), Encapsulated, lead-wires
3	Class 180°C (H), Encapsulated, lead-wires
4	Class 130°C (B), Encapsulated, 3/16” spade terminals (1/4” spade optional)
11	Class 180°C (H), Tape-wrapped, lead-wires
2M	Class 155°C (F), Over-molded, lead-wires
3M	Class 180°C (H), Over-molded, lead-wires
5M	Class 155°C (F), Over-molded, 1/4” spade terminals
6M	Class 180°C (H), Over-molded, 1/4” spade terminals
HC2	Class 130°C (B), Encapsulated, 9.4mm DIN (EN175301-803 Style C Industrial 2+1 poles)

B Series

Coil Construction

Option #	
(blank)	Class 130°C (B), Tape-wrapped, lead-wires (18” long)*
W__	Lead-wires, non-standard length (specify in inches)
10	Externally rectified (AC voltage and lead-wires only)
1	Class 130°C (B), Encapsulated, lead-wires
3	Class 180°C (H), Encapsulated, lead-wires

4	Class 130°C (B), Encapsulated, 1/4” spade terminals (3/16” spade optional)
11	Class 180°C (H), Tape-wrapped, lead-wires
HC2	Class 130°C (B), Encapsulated, 9.4mm DIN (EN175301-803 Style C Industrial 2+1 poles)

D Series

Coil Construction

Option #	
(blank)	Class 130°C (B), Tape-wrapped, lead-wires (18” long)*
W__	Lead-wires, non-standard length (specify in inches)
10	Externally rectified (AC voltage and lead-wires only)
1	Class 130°C (B), Encapsulated, lead-wires
3	Class 180°C (H), Encapsulated, lead-wires
4	Class 130°C (B), Encapsulated, 1/4” spade terminals
11	Class 180°C (H), Tape-wrapped, lead-wires
HC	Class 130°C (B), Encapsulated, 18mm DIN (EN175301-803 Style A Industrial 2+1 poles)

AS Series

Coil Construction

Option #	
(blank)	Class 130°C (B), Tape-wrapped, lead-wires (18” long)*
W__	Lead-wires, non-standard length (specify in inches)
10	Externally rectified (AC voltage and lead-wires only)
1	Class 130°C (B), Encapsulated, lead-wires
3	Class 180°C (H), Encapsulated, lead-wires
4	Class 130°C (B), Encapsulated, 3/16” spade terminals (1/4” spade optional)
11	Class 180°C (H), Tape-wrapped, lead-wires
HC2	Class 130°C (B), Encapsulated, 9.4mm DIN (EN175301-803 Style C Industrial 2+1 poles)

BS Series

Coil Construction

Option #	
(blank)	Class 130°C (B), Tape-wrapped, lead-wires (18” long)*
W__	Lead-wires, non-standard length (specify in inches)
10	Externally rectified (AC voltage and lead-wires only)
1	Class 130°C (B), Encapsulated, lead-wires
3	Class 180°C (H), Encapsulated, lead-wires
4	Class 130°C (B), Encapsulated, 3/16” spade terminals (1/4” spade optional)
11	Class 180°C (H), Tape-wrapped, lead-wires
HC2	Class 130°C (B), Encapsulated, 9.4mm DIN (EN175301-803 Style C Industrial 2+1 poles)