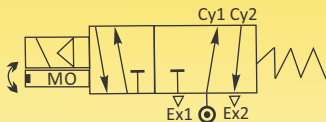




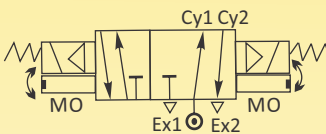
SOLENOID VALVES FOR AUTOMATION

4-WAY, 5-PORT, 2-POSITION, SINGLE SOLENOID AND DOUBLE SOLENOIDS, PILOT OPERATED POPPET TYPE VALVES.

SERIES 411D&412D



Single Solenoid



Double Solenoid

NOTE: For your requirement of valves with Flameproof Enclosure, please refer to catalogue no. 9470D & 9472D.

General Description:

Series 411D & 412D Solenoid Valves are Pilot Piston Operated type Valves, requires very low minimum pressure differential to operate. Valves are used on application where high flow rate is required. Valves are suitable for general application with media such as Air, Gas, etc., provided they are compatible with construction material of the valve.

End Connection:

'G'-ISO-228 (BSP) & NPT.

Max Temperature Range:

For media – Minimum (-)5°C and maximum with Buna Nitrile poppets is 80°C. Max. ambient temperature with Class 'H' coil (+)42°C.

Manual Override:

Valve can be operated manually to open the valve when there is No Electric supply to the coil. Manual Override consist of slotted head screw for Screw Driver with Two possible position to Open the valve and Close the valve. Manual Override is to be positioned at Close Position when valve is operated through coil.

BEFORE ATTEMPTING ELECTRICAL OPERATION: CHECK THE MANUAL OVERRIDE IS AT CLOSE POSITION.

Mounting Bracket:

Mounting Brackets are available as accessory.

Coil:

Series 411D & 412D Solenoid Valves are supplied with Class 'H' insulated (180°C) coil; encapsulated in Thermo Plastic, containing 40% Glass fibre.

All coils are for continuous service, 100% duty (E.D). Rated voltage tolerances for all AC Coils ±10%/-5% and for DC Supply Coils +10%/-5%. Coils can be used on AC with frequency of 50 Hz to IP 65 as per IEC-60529-2001.

Installation:

Valves can be mounted in any position except "Inverted", preferably in horizontal pipeline with magnetic construction in vertical and upright position.

Series 411D & 412D Solenoid valves are not designed for Back Pressure coming from downstream side.

Approvals:

IP-65 As per IEC-60529-2001, Coil M22-SQ: 220/230V 50/60 Hz, 240C 50/60Hz, 110V 50/60 Hz, 24V DC.

Material:

Valve Body for 1/4" size : Aluminium LM-24 Die Cast and Hard Anodized.
& For 3/8" & 1/2" size : Aluminium Bar Stock.
Seals/Poppets : Buna Nitrile.
Tube Nut : Brass tube nuts,
Plunger & Stopper : AISI 430FR St.St.
Spring : AISI302 St.St.
Shading Ring : For AC: Copper/Al/Silver, For DC: No shading ring.
Coil Type : AC – M22-SQ/GP/H, 240, 110 V 50 Hz, Rating:5.5 VA DC-M22-SQ/GP/H, 24V Rating : 4 Watts.

Application : For Operating Diaphragm Control Valves, Pneumatic Cylinders, Piston Type Valves, etc.

SPECIFICATIONS: SINGLE SOLENOID

Series	Pipe Size	Orifice Size	Flow Factor Kv	Body Material	Seat	BTP	Working Pr.(bar)			Coil Type	Coil Rating		Constr. Ref.	Weight
											VA	Watt		
411D	Inch	mm	M ³ /hr.			bar	min	max			~	=		Kgs
411D 06	1/4	06	0.6	AD	BN	16	2	10	M22-SQ	5.5	4		585	0.496
411D 10	3/8	10	1.0	AL	BN	16	2	10	M22-SQ	5.5	4		585	0.998
411D 15	1/2	15	1.5	AL	BN	16	2	10	M22-SQ	5.5	4		585	0.972

SPECIFICATIONS: DOUBLE SOLENOID

Series	Pipe Size	Orifice Size	Flow Factor Kv	Body Matl	Seat/Poppets	BTP	Working Pr.(bar)			Coil Type	Coil Rating		Constr. Ref.	Weight
											VA	Watt		
412D	Inch	mm	M ³ /hr.			bar	min	max			~	=		Kgs
412D 06	1/4	06	0.6	AD	BN	16	2	10	M22-SQ	5.5	4		586	0.594
412D 10	3/8	10	1.0	AL	BN	16	2	10	M22-SQ	5.5	4		586	2.091
412D 15	1/2	15	1.5	AL	BN	16	2	10	M22-SQ	5.5	4		586	2.065



NOTE: Valves suitable for AC and DC supply are different in characteristics and construction.

No Interchanging of coils between DC to AC or AC to DC possible. DO NOT INTERCHANGE COILS.

Minimum details required for submitting offer: Size, Body material, Seat Poppets, medium name, Flow (M3/hr), pressure (bar), temp. Deg.C, coil voltage AC or DC.,Quantity (Nos), etc.