Maxseal Solenoid Operated Valves

ICO4N 1/4" 3/2

Thompson Valves Ltd

Typical Applications

- 1/4" 3/2 Automatic
- 1/4" 3/2 Auto Latching Lever
- 1/4" 3/2 Pushbutton Manual Reset
- 1/4" 3/2 Jackscrew Manual Override
- 1/4" 3/2 Auto 50 bar Option
- 1/4" 2/2 Auto Option
- Actuator Control
- Direct Acting Shut Off Valve
- Oil & Gas Applications
- Turbine Fuel Control

Description

- Model ICO4N 1/4" 2/2 UNI
- Direct Acting Solenoid Valve
- Low Pressure
- High Flow
- Max Inlet Pressure 20 bar (290 psi)
- Certified for hazardous area use as well as general air and gas purposes in the offshore and petrochemical industries

Thompson Valves Ltd - **Maxseal** Solenoid Operated Valves

Standard Features

Solenoid Materials of Construction	Solenoid Pot - Cast Iron - BS EN 1561: 1997	
	Top Cover - Cast Iron - BS EN 1561: 1997	
	Valve Body & Trim Materials - Stainless Steel	
	O-Rings Seats & Seals - High Nitrile (NBR)	
	Coil Insulation - Class H	
Maximum Inlet Pressure	20 bar (290 psi)	
Flow Rates	C_V = 0.8 USgpm for 1 psi Δp	
	K_V = 11.5 l/min for 1 bar Δp	
Temperature Ratings	Media (Min/Max -20°C/90°C) - Ambient (Min/Max 0°C/60°C)	
Valve Size	1/4" Balanced Poppet Valve	
Process Connections	1/4" NPT	
Conduit Connection	M20 x 1.5 Conduit Thread	
Paint Finish	Epoxy (light grey)	
Weight	3.5 kg	

Recommended Spares Kits

Soft Spares (O-rings, Springs, etc.)	Standard	Y523A010000-SS
	Others	Please call
Spare Coil Assembly	Standard 24V DC (6.6W)	Y523A0101B0
	Others	Please call

Options

Automatic 2/2 or 3/2 50 Bar	Please call for details	
Valve Body & Trim Materials	Brass	
Seat / Seals	Viton®	
	Others on request	
High Temperature Options	High Temperature Spacer (Max Med/Amb 120ºC/60ºC)	
	Please call for dimensions & details	
Process Connections	Thread 1/4" BSPP	
Conduit Connection	1/2" NPT	
Paint Finish	Green	
Product Lead Time	Y523AA1H1BS - 4 weeks	
	Other variations: Please call for possible delivery dates	

Thompson Valves Ltd - **Maxseal** Solenoid Operated Valves

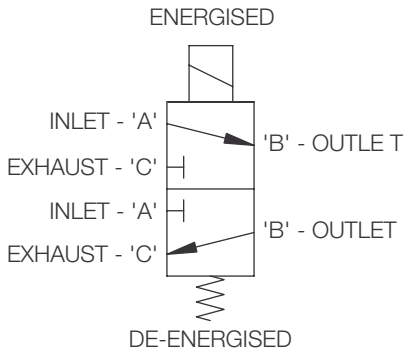
Technical Specification

Pressures	
Test (Proof) Pressure	30 bar (435 psi)
Maximum Inlet Pressure	20 bar (290 psi)
Maximum inlet pressure when used in 'Universal Operation'	15 bar (218 psi)
ATEX Classification	Complies with ATEX Directive 94/9/EC
ATEX Certificate	BASEEFA 02ATEX0077
Certification	II 3G EEx na II T6 (T_a = -20°C to + 40°C) or
	II 3G EEx na II T4 (T_a = -20°C to + 90°C)
	Complies with EN 50021:1999
Safety Integrity Level	Suitable for SIL 3 Application in Simplex Mode
	Suitable for SIL 4 Application in Duplex Mode
Ingress Protection	IP65 - IP68
Voltage Surge Protection	Surge Suppression Diodes
Coil Insulation	Class H

Performance

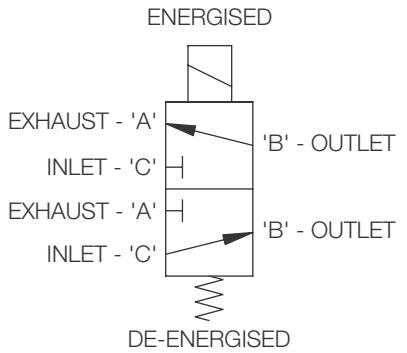
Pull-In Voltage	87.5% of Nominal
Response Times	Pull-In <150 ms
	Drop-Out <80 ms
Electromagnetic Compatibility (EMC)	EN50081-2/82-1

Valve Symbol



VALVE SYMBOL FOR
ENERGISE TO OPEN
(DE-ENERGISED TO CLOSE)
(NORMALLY CLOSED)

20 BAR MAX WORKING PRESSURE
STANDARD OPERATION



VALVE SYMBOL FOR
ENERGISE TO CLOSE
(DE-ENERGISED TO OPEN)
(NORMALLY OPEN)

15 BAR MAX WORKING PRESSURE
UNIVERSAL OPERATION

Thompson Valves Ltd - **Maxseal** Solenoid Operated Valves

Ordering Information

Model	Operating Pressure	Port Config.	Operation	Process Conn.	Seat/Seal Materials	Conduit Connection	Voltage	Body/Trim Materials
Y5	2	3	A	A1	H	1	B	S
ICO4N	0-20 barg (290 psi)	3/2 UNIVERSAL	A = AUTO B = ALL P = PBMR S = JSMO	A1 1/4" NPT E1 1/4" BSPP	H High Nitrile V Viton®	1 M20 x 1.5 2 1/2" NPT	A 18/33V DC B 24V DC C 50V DC D 110V DC E 125V DC G 25V AC J 110V AC M 240V AC	S 316 SS / 316 SS B Brass / Brass C Brass / 316 SS

Ordering Example

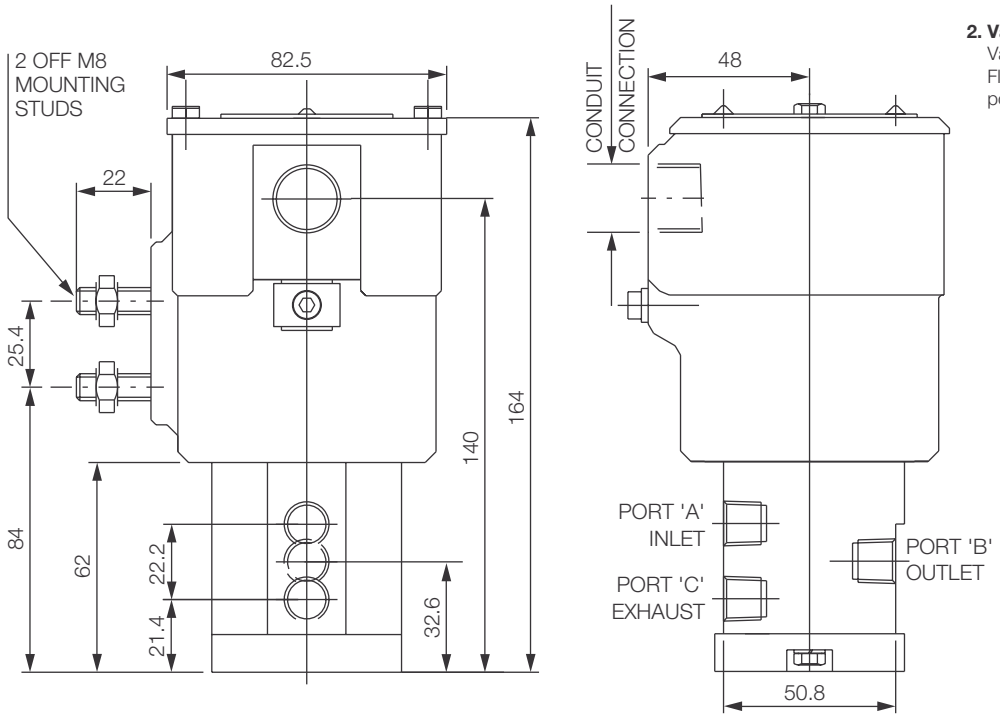
Y5	2	3	A	E1	V	2	E	B
ICO4N	0-20 barg (290 psi)	3/2 UNI	AUTO	1/4" BSPP	Viton®	1/2" NPT	125V DC	Brass / Brass

Power Consumption (At Nominal)

DC Standard	
18 / 33V DC (24V DC)	6.6W
24V DC	6.6W
50V DC	8.9W
110V DC	11.5W
125V DC	11.1W

AC Standard	
25V DC	11.3W
110V DC	9.3W
125V DC	11.3W

Profile and Dimensions mm



1. Valve is energised
Valve 'changes over'
Flow occurs between ports 'A' & 'B'

2. Valve is de-energised
Valve 'resets'
Flow occurs between ports 'C' & 'B'

Thompson Valves, 17 Balena Close, Creekmoor, Poole, Dorset BH17 7EF, ENGLAND
Tel +44 (0)1202 647331 Fax +44 (0)1202 647302 Email maxseal@thompson-valves.com
www.thompson-valves.com A fluid controls business of IMI plc