Maxseal Solenoid Operated Valves

ICO4S 1/4" 3/2 50B AUTO

- Typical Applications
- 1/4" 3/2 AUTOMATIC
- Actuator Control
- Direct Acting Shut Off Valve
- Oil & Gas Applications
- Turbine Fuel Control

Thompson Valves Ltd

- Description
- Model: ICO4S 1/4" 3/2 Uni Direct Acting Solenoid Valve
- Low Pressure, High Flow
- Max Inlet Pressure 50 bar (725 psi)
- Reliable and long life, ideal for a one time installation
- Control of pneumatic or hydraulic operated equipment

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Standard Features	ICO4S 1/4" 3/2 50B AUTO	
Solenoid Materials of Construction	Solenoid Pot - Stainless Steel - BFC 316	
	Top Cover - Stainless Steel- BFC 316	
	Valve Body & Trim Materials - 316 Stainless Steel	
	O-Rings Seats & Seals - High Nitrile (NBR)	
	Coil Insulation - Class H	
Maximum Inlet Pressure	50 Bar (725 PSI)	
Flow Rates	C_V = 0.6 USgpm for 1 psi Δp	
	K_V = 8.64 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	
Media	Liquid & Gases	
Weight	5.5 Kg	

Recommended Spares Kits		
Soft Spares (O-rings, Springs etc)	Standard & Extreme Service	Y133A010000-SS
	Low Temperature valves	See Valve Data Sheet
Spare Coil Assembly	Standard 24V DC (9.6 Watts)	Y133A0101B0
	Other Variations	See Valve Data Sheet

Options	
Valve Body & Trim Materials	Aluminium Bronze - Sea Water Applications
	Titanium - Extreme Service Applications
Low Temperature Options	O-Rings - Low Nitrile / Fluorosilicone (Min Med/Amb -40°C/-40°C)
High Temperature Options	High Temperature Spacer (Max Med/Amb 120°C/60°C)
	Please Call for Dimensions
Process Connections	Thread - 1/4" BSPP
Conduit Connection	1/2" NPT
Extreme Service	Increased Power Consumption
Product lead time	Y133AA1H1BS - 1 WEEK (SUBJECT TO QUANTITIES)
	Other Variations - Please call for possible delivery dates

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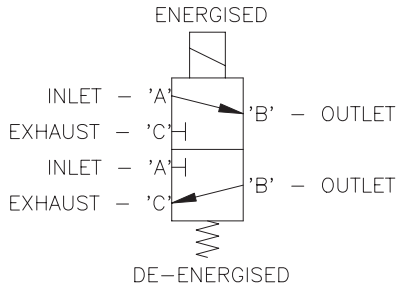
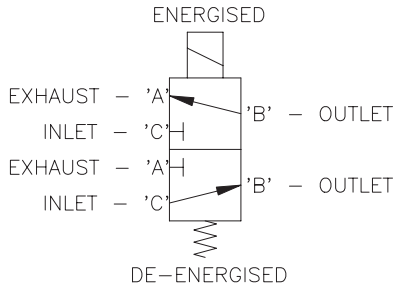
Technical Specification

Pressures	
Test (Proof) Pressure	75 bar (1088 PSI)
Maximum Inlet Pressure	50 Bar (725 PSI)
ATEX Clasification	Complies with ATEX Directive 94/9/EC
ATEX Certificate	SIRA 00ATEX1147
Certification	II 2G
	EExd IIC T6 (T_a= -60°C to + 48°C) or
	EExd IIC T4 (T_a= -60°C to + 90°C)
IECEx	IECEx BAS 04.0019
	EExd IIC T6 (T_a = -40ºC to + 60ºC) or
	EExd IIC T4 (T_a = -40ºC to + 90ºC)
GOST 'K'	EExd IIC T6 (T_a = -40ºC to + 60ºC)
GOST 'R'	EExd IIC T6 (T_a = -40ºC to + 60ºC)
Safety Integrity Level	Suitable for SIL 3 Application in Simplex Mode
	Suitable for SIL 4 Application in Duplex Mode
Ingress Protection	IP66/X8, NEMA 4X
Voltage Surge Protection	Surge Suppression Diodes
Coil Insulation	Class H
Performance	
Pull-in Voltage	87.5% of Nominal
Response Times	Pull-In <150ms
	Drop-Out <80ms
Electromagnetic Compability (EMC)	EN50081-2/82-1

Valve Symbol



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



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

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Ordering Information

Model	Operating Pressure	Port Config.	Operation	Process Connection	Seat/Seal Materials	Conduit Connection	Voltage	Body/Trim Materials
Y1	3	3	A	A1	H	1	B	S
ICO4S	0-50 Barg (725 psi)	3/2 UNIVERSAL	Automatic	A1 1/4" NPT E1 1/4" BSPP	H High Nitrile V Viton®	1 M20x1.5 2 1/2" NPT	A 18/33V DC B 24V DC C 50V DC G 25V AC J 110V AC M 240V AC R 115V DC	S 316 SS / 316 SS M Alu Brnz / Alu Brnz 3 Titanium / Titanium

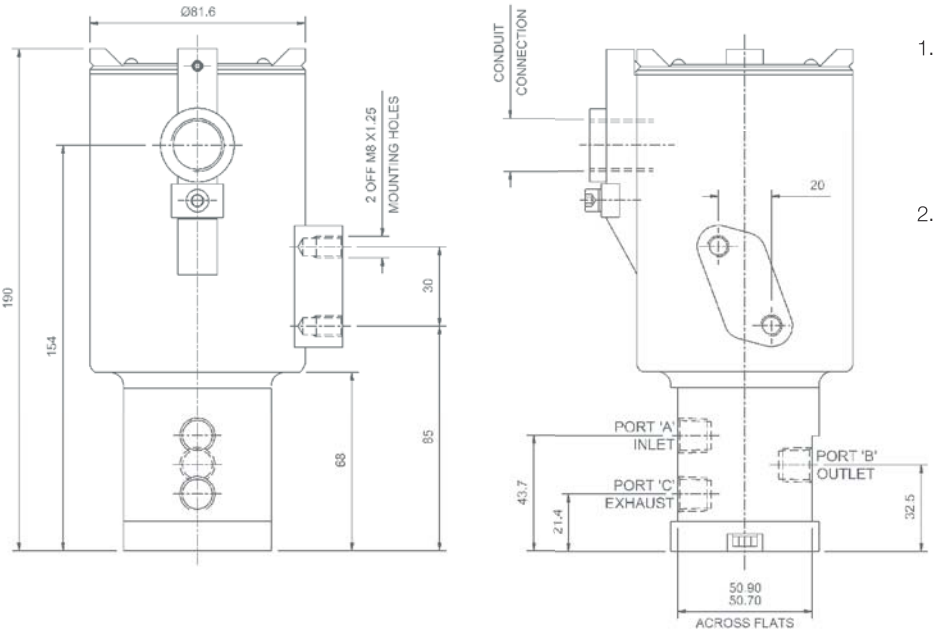
Ordering Example

Y1	3	3	A	E1	H	1	C	S
ICO4S	0-50 Barg (725 psi)	3/2 UNI	Auto	1/4" BSPP	High Nitrile	M20 x 1.5	50V DC	316 SS / 316 SS

Power Consumption (At Nominal)

DC Standard		AC Standard		Extreme Service	
18 / 33V DC (24V DC)	7.7 W	25V AC	13.3 W	24V DC	15.1 W
24V DC	9.6 W	110V AC	9.5 W	Others Available	
50V DC	10.4 W	240V AC	9.3 W		
115V DC (110V DC)	8.0 W				
115V DC (125V DC)	10.4 W				

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'

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