

# Maxseal Instrument Changeover and Process Control Valve for Hazardous Areas EEx ia



Model ICO2S 1/4" - 2"

## Certification

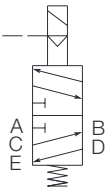


II 1G  
SIRA / CENELEC approved  
EEx ia IIC T6 T<sub>a</sub> (-40°C to +64°C)  
Complies with EN 50014:1997 (incl. amendments A1 and A2), EN 50020:1994 and EN 50284:1999  
Complies with ATEX Directive 94/9/EC  
Complies to Electrical Safety Standard IEC 1010  
Assessed compliant to Pressure Equipment Directive 97/23/EC  
FM approved to I.S. Class I Division 1 Groups A.B.C.D.

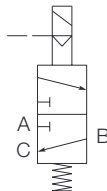
## Description

A pilot operated solenoid valve certified for use with hazardous gases.

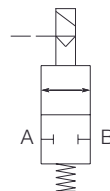
5-port



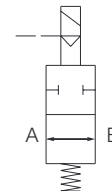
3-port



2-port, EO



2-port, EC



## Standard Features

Port thread (main body)	1/4" NPT
Port configuration	3/2 Uni
Operating pressure	
Main valve	0 - 20 bar(g) (0 - 290 psi)
Pilot valve	2 - 7 bar(g) (29 - 101.5 psi)
Actuation method	Pilot assisted
Valve material	Stainless steel BS EN 10088
Media	
Main valve	Liquids and gases
Pilot valve	2 - 7 bar (29 - 101.5 psi) clean and dry instrument air or inert gas
Seat / Seal material	High nitrile (Buna N)
Operating voltage	24V DC; 0.5W at 20°C (68°F) through barrier
Conduit / Signal entry	M20 x 1.5 mm ISO (F) / 1/4" NPT
Paint finish	Unpainted
Coil housing material	Stainless steel BS 3146 ANC.4 BFC.316
Weight	3-port version: 3 kg (6.6 lb)
Cv value	0.8 (Kv 0.69)

## Options

Port thread	1/4" - 2" BSPP / BSPT 1/2" - 2" NPT
Port configuration	5/2 Uni; 2/2 EO; 2/2 EC
Actuation method	Autolatch, lever manual reset (LMR), lever manual override (LMO), tamperproof manual reset (see "Optional Valve Features")
Valve material	Brass BS EN 12163: 1998
Seat / Seal material	Viton®, nylon 66 (high pressure seat only) Alternative materials available on request
Conduit / Signal entry	1/2" NPT
CV value (main valve)	
1/4" model	0 - 50 bar(g) (0 - 725 psi) = 0.6 (Kv = 0.5) 0 - 103/207 bar(g) (0 - 1494/3000 psi) = 0.28 (Kv = 0.24)
1/2" - 2" models	Please contact us

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**Maxseal**  
**Instrument Changeover and Process Control Valve for Hazardous Areas**  
**EEx ia**  
**ICO2S 1/4" - 2"**

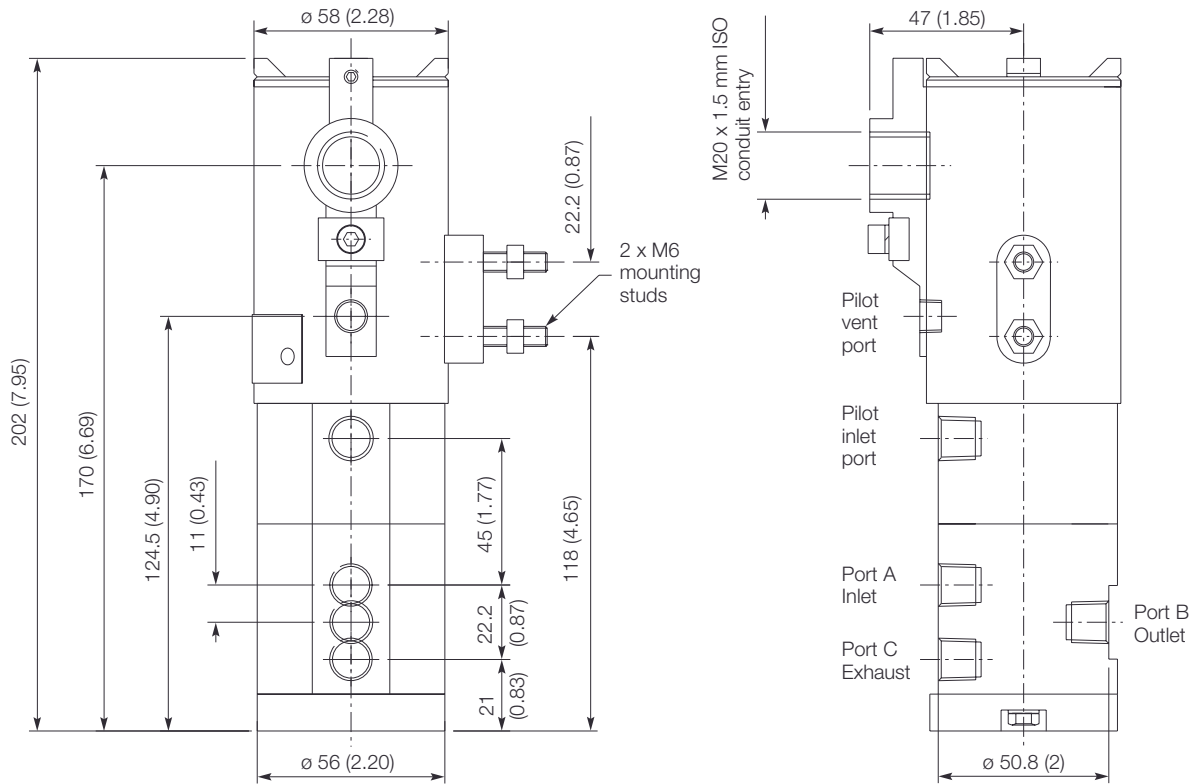
**Technical Specification**

Protection	Ingress IP66 / X8. NEMA 4X Surge suppression diodes
Response times (typical, dependent on coil size)	Pull-in < 150 ms Drop-out < 80 ms
Response times settings	Pull-in: within 87.5% of nominal (factory set at less than 75% of nominal) Drop-out: normally 10-20% of nominal
Operating pressure ranges (main valve)	
1/4" model	0 - 20 bar(g) (0 - 290 psi) (standard) 0 - 50 bar(g) (0 - 725 psi) (option) 0 - 103 bar(g) (0 - 1494 psi) (option) 0 - 207 bar(g) (0 - 3000 psi) (option)
1/2" - 2" models	Please contact us

**Dimensions in mm (inches)**

(3/2 Uni 1/4" configuration illustrated)

A typical basic installation would comprise a 24V DC power supply, control switch or relay, and an EEx.ia 300Ω 28V barrier.



For your convenience, Operation and Maintenance instructions are included with each valve.