

PART NUMBER					
Example :	M4SI V	BP	2V1	K	A/B:B1/4
	1	2	3	4	5
					6

1 - Valve Series, Surface finish & Body material

M4-SI V - Ra 0.25 μ m EP (10 μ m Ra)-316 L VAR
M4-SI S - Ra 0.4 μ m (15 μ m Ra)-316 L low sulf.

2 - Valve Actuation

BM Multi-Turn Handwheel (8.6bar)
LM Multi-Turn Handwheel (20bar)
HM Multi-Turn Handwheel (240bar)
BPNF Pneumatically actuated (8.6bar)
LPNF/LPNO* Pneumatically actuated (20bar)
HPNF/HPNO* Pneumatically actuated (240bar)
BQ Quarter-Turn Handwheel (8.6bar)
LQ Quarter-Turn Handwheel (20bar)
*NF=normally closed /NO=normally open

3 - Valve Configurations

2V1 2 ports in line
See below for other configurations

4 - Seat Material

K PCTFE (Kel-F®)
V Pi (Vespel®) (optional)
P PVDF (optional)

5 - End Connections

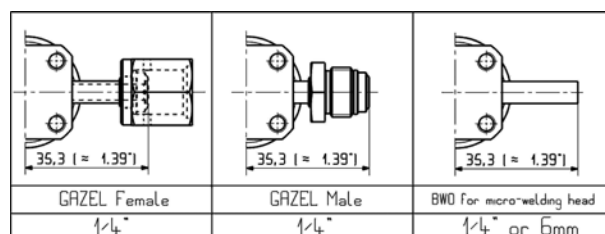
V 1/4 F GAZEL® 1/4" - Female (Face Seal*)
V 1/4 M GAZEL® 1/4" - Male (Face Seal*)
B 1/4 BWO 1/4" (Butt Orbital Weld)
B 6 BWO 6 mm (Butt Orbital Weld)

6 - Options

FT Panel Mounting
CI Electric limit switch

Standard Colors

BM,LM,HM : Blue
BPNF Blue
LPNF Blue
LPNO Green
HPNF/HPNO White
BQ,LQ Black

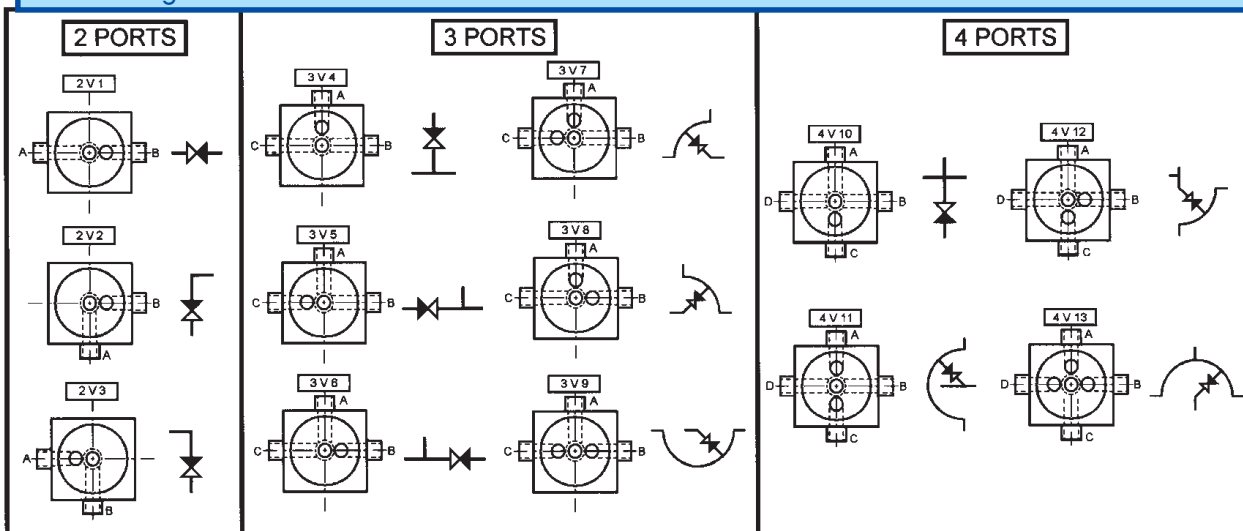


GAZEL® -Female
(face seal)*

GAZEL® -Male
(face seal)*

BWO for standard
welding heads

Valve Configurations



SELFA

Valves & Fittings

A total component solution, from source to process

M4-SI (Reverse seat)
DIAPHRAGM LINE VALVES
FOR HP AND UHP APPLICATIONS
(STANDARD AND GAS SPECIFIC)

4-SI



*All GAZEL® Face Seals are VCR® compatible. VCR® is a registered trade mark of CAJON CO., Kel-F® is a registered trade mark of 3M company. Vespel® is a registered trade mark of DuPont. All rights of change reserved.

FEATURE a unique proven design

M4-SI

TECHNICAL DATA

M4-SI

Individual Serial number,
for full traceability

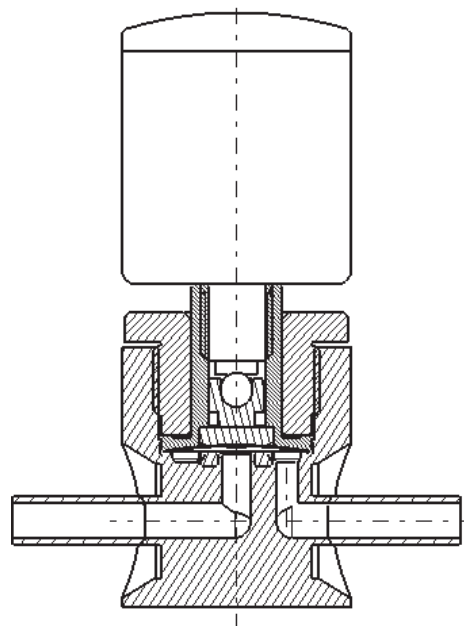
Compact size

Precision electropolishing
of all internal surfaces

Long life technology

Low particle
generation

Selected Stainless Steels for
low sulfur content as well as
optimized impurity levels



Assembling, testing &
Packaging in
cleanroom Cl. 10

Visual Open/Close
Indicator (ON/OFF
window on Multiturn
version)

Fully functional from
vacuum to rated
pressure

Aerodynamic fully
swept flow passage

Excellent
purgeability

Manufactured to the **THREE STAR PROCESS®**

Fluid Media		Standard, HP, UHP, corrosive and non-corrosive gases
Max working pressure	M4-SI manual multiturn MT	3500 PSI (240 bar) or 290 PSI (20 bar) or 125 PSI (8.6bar)
	M4-SI pneumatic BPNF	125 PSI (8.6 bar)
	M4-SI pneumatic LPNF - LPNO	290 PSI (20 bar)
	M4-SI 1/4 turn QT	125 PSI (8.6 bar) or 290 PSI (20 bar)
	M4-SI pneumatic HPNF - HPNO	3500 PSI (240 bar)
Pneumatic actuator opening pressure		5 - 7 bar (75 to 105 PSI)
Temperature range		-20°C to +65°C (-4°F to 149°F)(Vespel®seat to:155°C/311°F)
Burst pressure		12500 PSI (850 bar)
Flow Capacity		Cv = 0.2
Certified max. Helium inboard leak rate		< 1.10 ⁻⁹ mbar.l/sec
Certified max. Helium outboard leak rate (at max. pressure)		< 1.10 ⁻⁹ mbar.l/sec
Certified max. Helium across the seat leak rate (at max. pressure)		< 1.10 ⁻⁹ mbar.l/sec
Wetted volume		< 1.2 cc
Mounting		Back mounting or optional Panel mounting
Nominal seat diameter		4 mm (0.16")

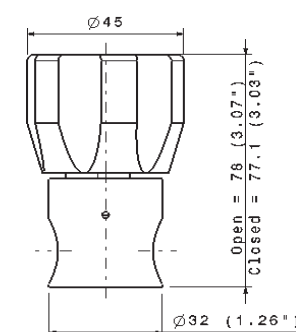
		Valve Grade & Materials	
	Parts	M4-SI S	M4-SI V
Wetted Parts	Body	SS 316 L	SS 316 L VAR
	Surface Finish	< 0,4 µm (15µin Ra)	< 0,25 µm EP (10µin Ra)
	Diaphragm	Polished Nickel Alloy	
Non-wetted parts	Seat material	Kel-F® (PVDF or Vespel® on request)	
	Backup diaphragms	Nickel Alloy	
	All others	Stainless Steel or alloys	

Manual Actuation

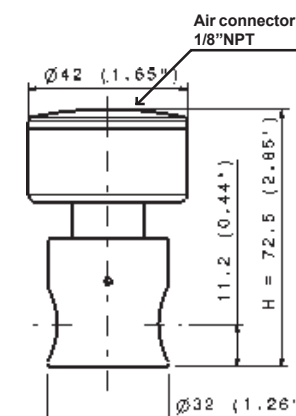
Pneumatic Actuation

Parts for all valve grades	
Upper Spindel	Brass
Handle	Plastic(Alu.optional for MT)
All others	Stainless Steel

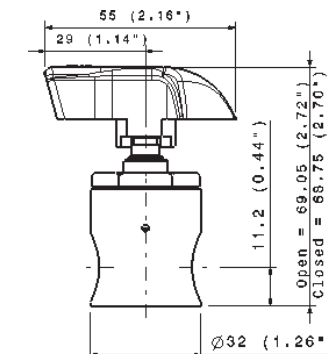
Parts	
Actuator Body	Aluminium
Piston	Brass
O-rings	NBR-PC 851
All others	Stainless Steel



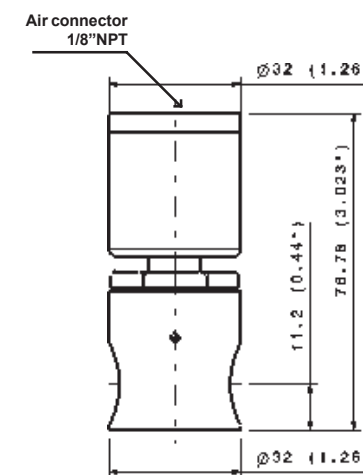
**M4-SI
Multiturn valve (MT)
with open/close
window**



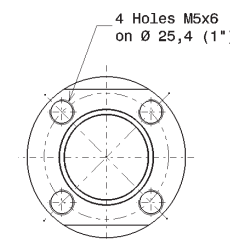
**M4-SI - Pneumatic valve
Medium Pressure (LPNF,
LPNO)**



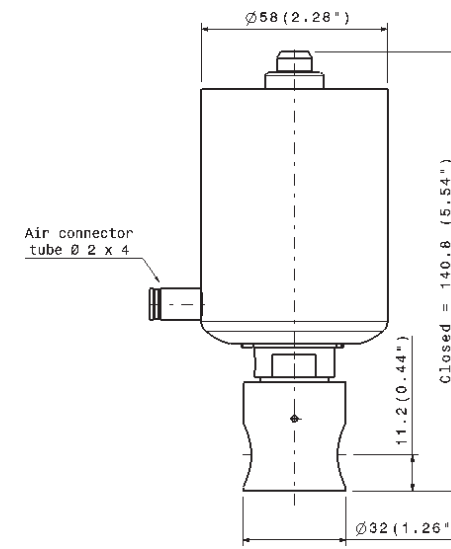
M4-SI - Quarter turn (QT) valve



**M4-SI Pneumatic valve
Low pressure (BPNF)**



**M4-SI
bottom view**



**M4-SI Pneumatic valve
High Pressure (HPNF,
HPNO)**