

256 - 356

MULTI-FLUID SOLENOID VALVES 1/8" AND 1/4"



ASCOTM


EMERSONTM
Industrial Automation

MULTI FLUID SOLENOID VALVES 1/8"



For applications that require **robust** electrical valves with a **small footprint** frequently found in industrial applications, the **Series 256/356** in brass or stainless steel is an ideal solution.

2 AND 3 WAY NC, NO, U
High differential pressures up to 28 bar.

Broad chemical compatibility with operating fluids and the environment:

- Brass or AISI 316 stainless steel
- FPM seals and disc

Ambient temperature -10 to +60°C

Fluid temperature -10 à +100°C

Connections 1/8" and 1/4": Gas ISO 228/1

Optional G 1/8" version with ACS certification for use on potable water.

- **Suitable for outdoor all-weather use.**
IP 65/IP 67 protection
- **High reliability, long life, 20 million cycles**
- **3.5 to 7 W, Low power consumption**
- **Compact solution**
- **Fast response time**
- **Unaffected by hard water**

Electrical connections



C22A



C25A



Flying leads

- DIN Connectors with and without visual indication and peak voltage protection.

International approvals dual frequency coil 50/60 Hz

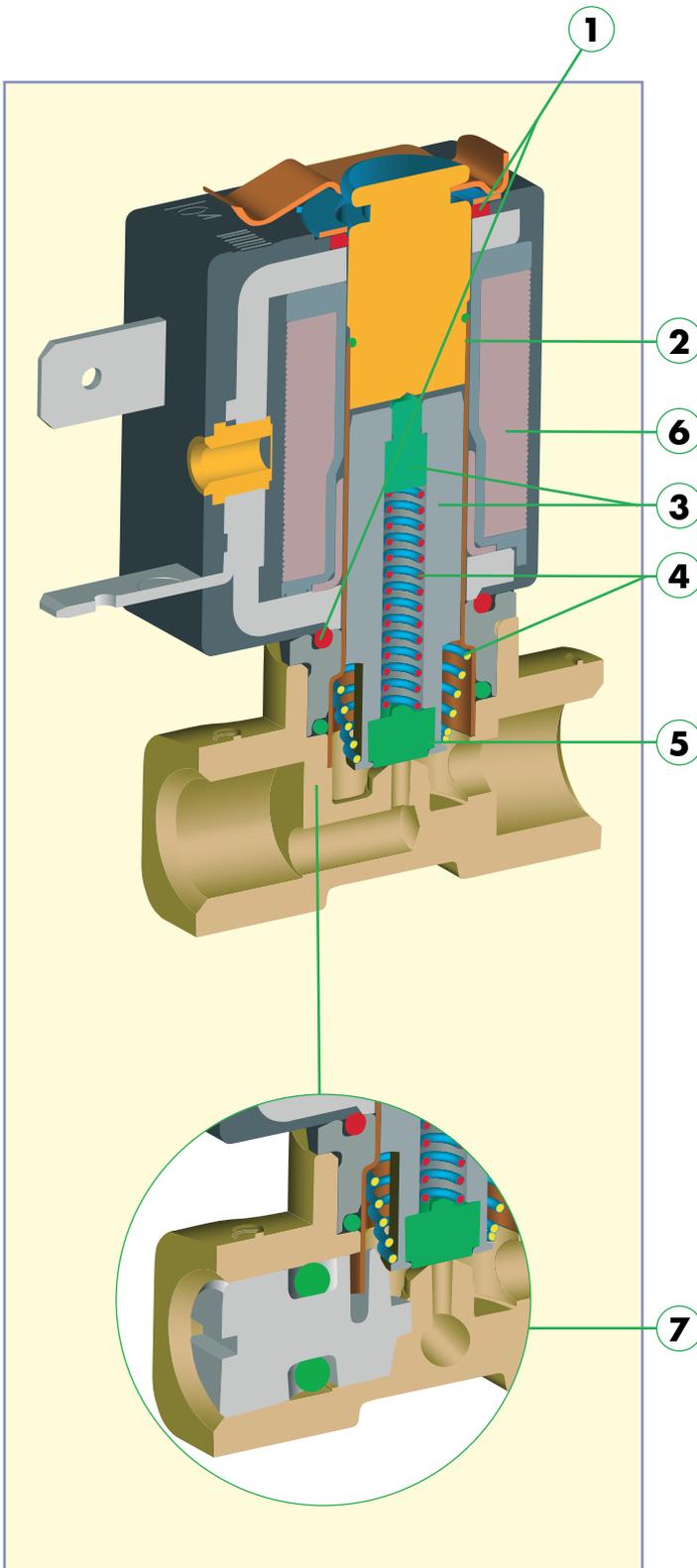


ATEX



Coils for explosive atmospheres
dust and gas zones

Enclosure protection IP65 (zone 22), m (zones 2, 1, 21)



1 **Double O-ring concept**

2 O-rings positioned at the ends of the coil enable outdoor use, without any additional protection. A perfect seal and lack of moisture between the coil and the core tube avoid any degradation of the magnetic system and any accelerated aging of the coil.

2 **Stainless steel core tube**

3 **Excellent flow rate**

7.5 l/min (with the Ø 5 mm orifice) through optimisation of the valve stroke. Core design adapted for fluid flow in 3-way version.

4 **Fast Response Time**

The 256/356 series is very reactive (10 ms to open and 5 ms to close) and offers good repeatability (rates and higher frequencies: 1200 cycles / minute is 20 Hz) through the integration of the 2 springs.

5 **Multi-fluid compatibility**

Disc and valve seal in FPM; offers excellent resistance to oil, acid and temperature extremes (-40 to +190° C). Temperatures well above the maximum allowable by the solenoid.

6 **Magnetic circuit optimisation**

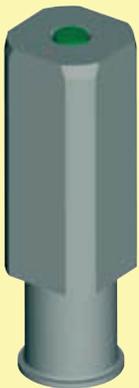
Moulded coil, class IP65/IP 67, PET (recyclable thermoplastic complies with European environmental WEEE/RoHS), compact (width 22 mm or 30 mm).

30 000 hours of continuous operation under load.

7 **Manual control as standard**

Facilitates startup and maintenance.

The square core design



To reduce friction, prevent limescale deposits and prevent the core from seizing when used on fluids containing particles. The integration of a damper reduces noise and prolongs the life of the magnetic system.

● **Easy installation:**

- 2 M3 mounting holes in the body and manual screwdriver operation as standard
- quick and easy coil assembly and disassembly by means of a clip. The upper O-ring is captive.

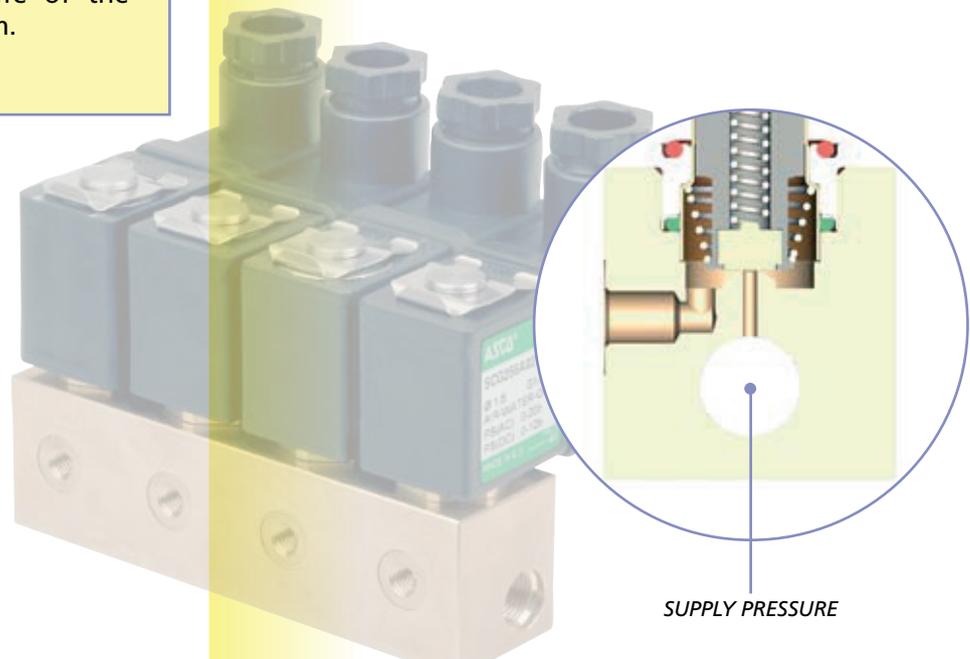
● **Easy maintenance:**

- if impurities in the fluid disrupt operation, cleaning is carried out by simply **unscrewing the tubecylinder** with a 17 mm hexagonal box wrench
- **interchangeable coils AC and DC**

● **When space is limited:**

Manifold versions, brass or stainless steel, 2 to 10 valves

- an even **more compact solution** (only 238 mm for a manifold of 10 valves)
- economic:
 - > reduces assembly time
 - > risk of leakage eliminated
 - > only one inlet connection to feed all the valves



APPLICATIONS

The 1/8" and 1/4" valves can be used in a wide range of applications, such as:

- **shut-off valve**
- **dosing and filling**
- **piloting valves and actuators**

The valves can be used in machines for welding, sanitation, irrigation, for industrial laundries, compressors, refrigeration equipment, heating, washing, packaging, distribution of drinks, animal feed, milking and auxiliary fluid control in the agro-food industries.



1



2



3



4



5



7



6

- 1 Car washes
- 2 Compressors
- 3 Industrial washing machines
- 4 Welding equipment
- 5 Hydrotherapy baths
- 6 Valve piloting
- 7 Food industry

MULTI-FLUID SOLENOID 1/8" AND 1/4"



TYPE-SERIES	2/2 threaded 256								3/2 threaded 356				2/2 on manifold 256		3/2 on manifold 356					
	G 1/8"				G 1/4"				G 1/8"		G 1/4"									
Function	NC - NO				NC				NC - NO - U				NC		NC					
Orifice Ø	1,2	1,6	2	2,4	1,6	2,4	4	5	1,2	1,6	2	2,4	1,6	2,4	1,6	2,4	1,6	2,4		
Maximum differential pressure in bar	CA	22 mm	28	20	15	12	20	12	-	-	15	10	5	4	-	-	-	-	-	-
		30 mm	-	-	-	-	20	15	5	3	-	-	-	-	10	4	20	12	10	4
Flow coefficient	CC	22 mm	20	12	6	4	12	4	-	-	15	10	5	4	-	-	-	-	-	-
		30 mm	-	-	-	-	15	8	2	1	-	-	-	-	10	4	12	4	10	4
Manual operator	m³/h	0,05	0,08	0,11	0,13	0,08	0,16	0,33	0,45	0,05	0,08	0,10	0,13	0,08	0,16	0,08	0,13	0,08	0,13	
	l/min	0,8	1,33	1,83	2,16	1,33	2,67	5,5	7,5	0,8	1,33	1,66	2,1	1,33	2,67	1,33	2,16	1,33	2,16	
Manual operator	Standard				Standard except ø 4 & 5				Standard		Standard except ø 4 & 5		-		-					

Other 1/4" multi-fluid valve solutions

Threaded valves 2/2 NC - NO, 3/2 NC - NO - U, brass and stainless steel



Threaded valves, **three ports in the body**
3/2 NC - NO - U, brass and stainless steel



Manifold valves 2/2 NC,
3/2 NC, brass

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