SPOOL VALVES

**pilot operated or air operated, spool type
single/dual solenoid or air (mono/bistable function)
brass body, NAMUR, 1/4**

3/2-5/2

Series
551

FEATURES

- The solenoid operated spool valves have threaded port connections and NAMUR interface
- The same spool valve can be adapted for 3/2 NC or 5/2 function for controlling double-acting and single-acting actuators
- All the exhaust ports of the spool valve are connectable, providing better environmental protection. Particularly recommended for sensitive areas, such as clean rooms, and applications in the pharmaceutical and food processing sectors
- The valves offer environmental protection against the ingress of liquids, dusts or other foreign matter (environmentally-protected construction)
- Solenoid pilot valve with spade-plug connector type EN 175301-803, industry standard form C, with 9,4 mm spacing. Versions with M12 connection
- Solenoid pilot valve, CNOMO size 15 interface, with or without integral LED and electrical protection. LED indicator visible from 3 sides
- The monostable spool valves in conformity with IEC 61508 Standard (2010 route 2_H version) have TÜV certified with integraty levels: SIL 2 for HFT = 0 / SIL 3 for HFT = 1
- The solenoid valves satisfy all relevant EC directives
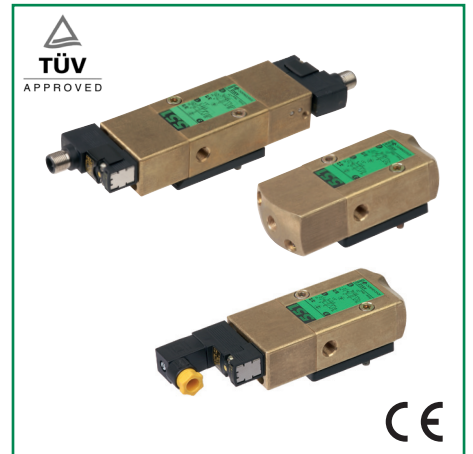
GENERAL

Differential pressure 2 - 10 bar [1 bar = 100 kPa]
Flow (Qv at 6 bar) 700 l/min (ANR)
Pilot mounting interface surface ISO 15218 (CNOMO E06.36.120N, size 15)

fluids (∗)	temperature range (TS)	seal materials (∗)
air, inert gas, filtered	- 25°C to + 40°C [4]	VMQ (silicone) + PUR (polyurethane)

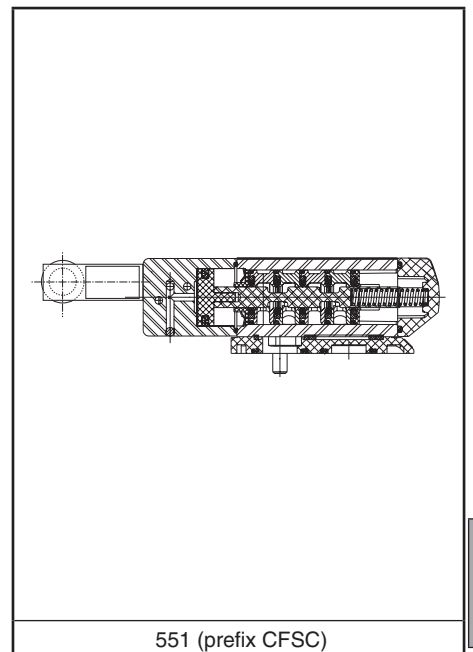[4] -40°C for air operated versions.

MATERIALS IN CONTACT WITH FLUID

(∗) Ensure that the compatibility of the fluids in contact with the materials is verified
Body, end cover, seats Brass
Interface plates Glass fibre filled PA
Spool valve internal parts Brass, stainless steel, POM
Pilot body PAA
Pilot internal parts POM, PET, stainless steel and brass
Pneumatic interface seal TPE

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Connector (type 05) Spade plug (cable Ø 4-6 mm)
Connector specification Type 05: DIN 43650, 9,4 mm, form C
Connection Type 07: M12 (CNOMO E03.62.520.N)
Electrical safety IEC 335
Electrical enclosure protection Moulded IP65 [05] or IP67 [07] (EN 60529)
Standard voltages DC (=): 24V
(Other voltages and 60 Hz on request) AC (~) : 24V-115V-230V / 50 Hz (prefix CFSC)

prefix option	power ratings				operator ambient temperature range (TS)	voltage		type [1]
	inrush	holding		hot/cold		~	=	
	~	~		=				
	(VA)	(VA)	(W)	(W)	(C°)	(V)	(V)	
CFSC	1,4	1,2	1,1	1/1,2	-25 to + 60	24-115	24	05
	1,8 [2]	1,6 [2]	1,5 [2]	1,15/1,35 [2]				
	2,1	1,6	1,5	-	-25 to + 60	230	-	
	2,5 [2]	2 [2]	1,9 [2]	-	-25 to + 50			
CFVT [3]	-	-	-	1,15/1,35	-25 to + 60	-	24	07

[1] Refer to the dimensional drawings on the following page.
[2] Values with LED indicator and protection, use TPL 20674.
[3] Supplied with LED indicator and protection.

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv	operating pressure differential (bar)			power coil (W)		catalogue number		options		
			min.	max. (PS)				connector EN 175301-803 (9,4 mm)	M12	maintained man. operator	impulse man. operator	
				air (*)				(type 05)	(type 07)			
G	(mm)	(m³/h)	(l/min)	~	=	~	=	~/=	=			
3/2 NC - 5/2 - Solenoid air pilot operated - spring return (monostable)												
1/4	6	0,6	10	2	10	10	1,1..1,5	1,2	CFSCG551C503	-	MS	MO	-
							-	1,35	-	CFVTG551C503	MS	MO	-
3/2 NC - 5/2 - Solenoid air pilot operated and return (bistable)												
1/4	6	0,6	10	2	10	10	1,1..1,5	1,2	CFSCG551C504	-	MS	MO	-
							-	1,35	-	CFVTG551C504	MS	MO	-
3/2 NC - 5/2 - Solenoid air pilot operated spring return (monostable), certified IEC 61508 Functional Safety data												
1/4	6	0,6	10	2	10	10	1,1..1,5	1,2	CFSCG551C503SL	-	-	MO	-
							-	1,35	-	CFVTG551C503SL	-	MO	-

551 (prefix CFSC)

G

All leaflets are available on: **www.asconumatics.eu**

OPTIONS

- Versions (Type 09):   - pilot air operated, spring return, catalogue numbers: **G551A103** / **G551A103SL** (1/4)
  - pilot air operated and return, catalogue numbers: **G551A104** (1/4)
- Suffix "**GD**" (air operated only, ATEX 2GD c)
- Explosionproof enclosures for use in zones 0/20-1/21-2/22, categories 1-2-3 to ATEX Directive 94/9/EC (see "Explosionproof Solenoids" section)
- LED and protection, prefix CFSC, use TPL number: TPL 20674 (e.g.: CFSC**X**G551C505**TPL20674**)
- Straight M12 connector: with 5 m cable length (catalogue number **88130212**)
- Valves equipped with exhaust reducers G 1/8 (3/2 NC-5/2, series 551), suffix M
- Set of stainless steel mounting screws (series 551), catalogue number **97802212**
- Set of two G 1/8 exhaust reducers, catalogue number **88100344**
- Versions with spade-plug connector type ISO 15217/DIN 43650 form C with 8 mm spacing or with cable ends: contact us
- Other pipe connections are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Spool valve supplied with two interface plates with NAMUR mating surfaces. Depending on function (3/2 NC or 5/2), position one of the two plates on the spool valve body before installing on actuator
- Do not connect the pressure supply to the exhaust port 3. The "environmentally-protected" construction is not adapted for NO function. Contact us for function available in specific version
- Dowel pin (if necessary), bolts and gaskets are standard supplied
- It is necessary to connect pipes or fittings to the exhaust ports to protect the internal parts of the spool valve and its pneumatic operator if used outside or in harsh environments (dusts, liquids etc.)
- IEC 61508 Functional Safety (suffix SL). Check temperature range of valve body and solenoid for suitability. For probability of failure, contact us
- Threaded pipe connection is standard: G = G (ISO 228/1)
- Valves with suffix "SL" are supplied with specific exhaust protectors
- Installation/maintenance instructions are included with each valve

ACCESSORIES

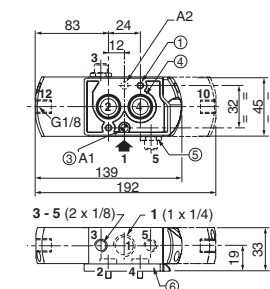| series	pipe size	exhaust protector (stainless steel)
551	G 1/8	**34600418** [1]
	M5	**34600484** [1]

[1] Supplied with suffix "SL".

ORDERING EXAMPLES:

CFSC	G	551	**C** 503		230V / 50 Hz
CFSC	G	551	**C** 503	SL	115V / 50 Hz
CFVT	G	551	**C** 504	MS	24V / DC
	G	551	**A** 103	SL	

prefix
pipe thread
basic number
voltage
suffix

DIMENSIONS (mm), WEIGHT (kg)

TYPE 05
Prefixes "CFSC"
Polyarilamide
IEC 335 / IP67
DIN 43650 (9,4 mm)

TYPE 07
Prefix "CFVT"
Polyarilamide
IEC 335 / IP67
M12
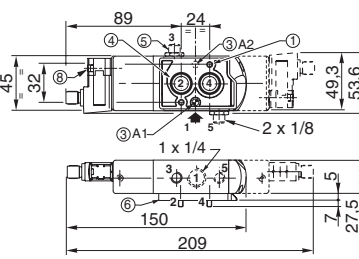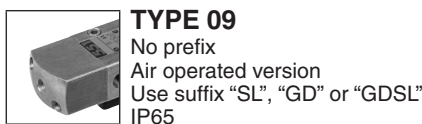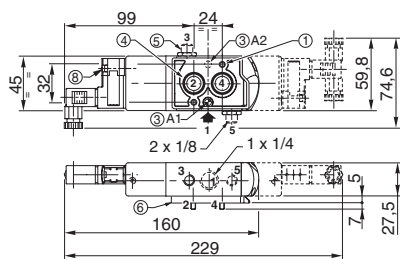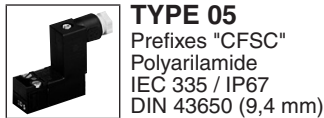
2 mounting holes:
① 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)
③ One 5 mm dia. hole for dowel pin:
- in position A1: 3/2 NC function plate
- in position A2: 5/2 function plate
④ 2 O-ring seals (supplied)
⑤ Exhaust reducer (G 1/8) or exhaust protector
⑥ Interface plate
⑧ Manual operator location

TYPE 09
No prefix
Air operated version
Use suffix "SL", "GD" or "GDSL"
IP65

type	prefix option	weight [2]	
		monostable	bistable
05	CFSC	0,876	1,064
07	CFVT	0,879	1,070
09	-	0,824	0,988

[2] Prefix CFSC: including connector(s).