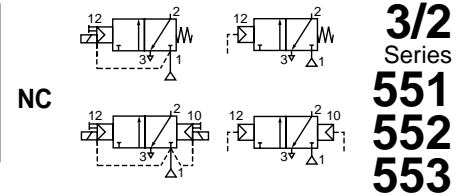




SPOOL VALVES

pilot operated or air operated, spool type
single/dual solenoid or air (mono/bistable function)
aluminium body, 1/4 to 1/2



3/2
Series
551
552
553

FEATURES

- All the exhaust ports of this 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)
- The monostable spool valves have TÜV certified IEC 61508 Functional Safety data and can be used up to SIL 4/AK 7
- The solenoid valves satisfy all relevant EC Directives

GENERAL

Differential pressure	2 - 10 bar [1 bar = 100 kPa]						
Flow (Qv at 6 bar)	l/min (ANR)						
	<table border="1"> <tr> <td>1/4</td> <td>3/8</td> <td>1/2</td> </tr> <tr> <td>860</td> <td>3000</td> <td>3800</td> </tr> </table>	1/4	3/8	1/2	860	3000	3800
1/4	3/8	1/2					
860	3000	3800					

fluids (*)	temperature range	seal materials (*)
air, inert gas, filtered	- 25°C to + 60°C	NBR (nitrile) + PUR (polyurethane)

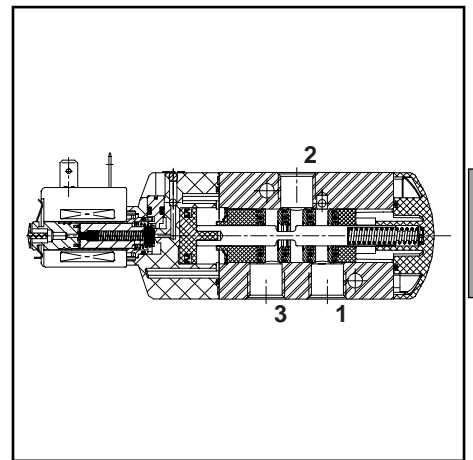
MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body, end cover	Aluminium, black anodized
End cover (spring return)	Glass-filled PA
Spool valve internal parts	Zamak, stainless steel, POM, aluminium
Seals	NBR + PUR
Core and core tube	Stainless steel
Shading coil	Copper

ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Connector	Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)
Connector specification	DIN 43650, 11 mm, industry standard B (type 01) or ISO 4400 / EN 175301-803, form A (type 02)
Electrical safety	IEC 335
Electrical enclosure protection	Moulded IP65 (EN 60529)
Standard voltages	DC (=): 24V - 48V
(Other voltages and 60 Hz on request)	AC (~): 24V - 48V - 115V - 230V / 50 Hz



prefix option	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type ⁽¹⁾
	inrush ~ (VA)	holding ~ (VA) (W)		hot/cold = (W)		~ 230 V/50 Hz	= 24 V DC	
		2,5	2,5/3					
SC	6	3,5	2,5	2,5/3	-25 to + 60	43004886	43004869	01
SC	15	7	5	2,5/6,9	-25 to + 60	43004649	43004647	02

⁽¹⁾ Refer to the dimensional drawings on the following page.

SPECIFICATIONS

pipe size	orifice size (mm)	flow coefficient Kv (m³/h) (l/min)		operating pressure differential (bar)				power coil (W)		catalogue number	options		
				min.	max. (PS)		air (*)				maintained	man.	operator
					~	=							
NC - Normally closed, solenoid air pilot operated - spring return (monostable)													
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A005	MS	-	-	
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A005	MS	-	-	
1/2	13	3,15	52,5	2	10	10	5	6,9	SCG553A005	MS	-	-	
NC - Normally closed, solenoid air pilot operated and return (bistable)													
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A006	MS	-	-	
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A006	MS	-	-	
1/2	13	3,15	52,5	2	10	10	5	6,9	SCG553A006	MS	-	-	
NC - Solenoid air pilot operated - spring return (monostable), certified IEC 61508 Functional Safety data													
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A005SL	-	-	-	

AIR OPERATED AND OPTIONS

- Versions: - pilot air operated, spring return, catalogue numbers: **G551A105** (1/4); **G552A105** (3/8); **G553A105** (1/2)
- - pilot air operated and return, catalogue numbers: **G551A106** (1/4); **G552A106** (3/8); **G553A106** (1/2)
- Suffix "MF" (air operated only, low temperature version, -40°C)
- Suffix "GD" (air operated only, ATEX 2GD c)
- Compliance with "UL" standard is available on request
- Magnetic latch execution for 551 series, TPL 20649
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3, to ATEX Directive 94/9/EC (see "Explosionproof Solenoids" section)
- Supply rail, see pages 5 and 6
- Other pipe threads are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2m (see Solenoids, Coils & Accessories section)

INSTALLATION

- The valves can be mounted in any position without affecting operation
- 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), allowable temperature range: -40°C to +60°C. For probability of failure, contact us
- Valves with suffix "SL" are supplied with specific exhaust protectors
- Threaded pipe connection is standard: G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve

ACCESSORIES

series	pipe size	exhaust protector (stainless steel)
551	G 1/4	34600419 ⁽¹⁾
552	G 3/8	34600478
553	G 1/2	34600479
551-552-553	M5	34600484 ⁽¹⁾

⁽¹⁾ Supplied with suffix "SL".

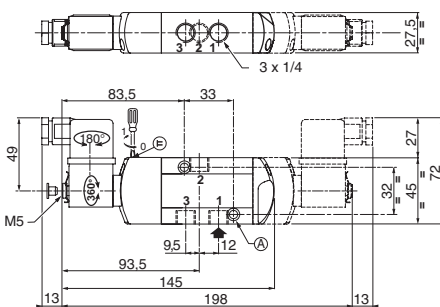
ORDERING EXAMPLES:

SC	G	551	A	005	MS	230V / 50 Hz
SC	G	551	A	005	SL	24V / DC
SC	G	552	A	006		115V / 50 Hz
	G	551	A	105	SL	

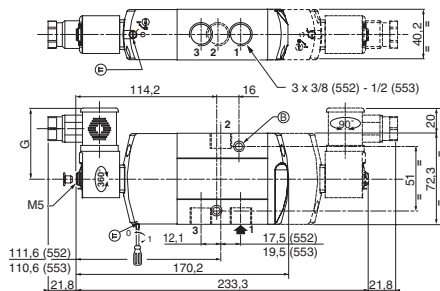
Diagram showing the breakdown of the part number: prefix (SC), pipe thread (G), basic number (551), suffix (A), and voltage (SL).

DIMENSIONS (mm), WEIGHT (kg)

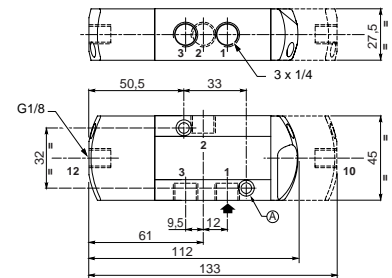
TYPE 01
Prefix "SC" Solenoid
Epoxy moulded
IEC 335 / DIN 43650
IP65
551A005 / A005 MS / A005 SL / A006 / A006 MS



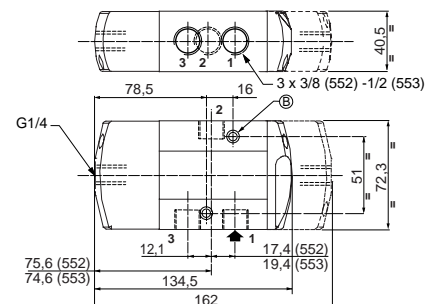
TYPE 02
Prefix "SC" Solenoid
Epoxy moulded
IEC 335 / ISO 4400
IP65
552A005 / A005 MS / A006 / A006 MS
553A005 / A005 MS / A006 / A006 MS



TYPE 03
No Prefix
Air operated version
551A105/A105SL/A106



552A105/A106
553A105/A106



2 mounting holes:

- Ⓐ 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)
- Ⓑ 6,5 mm dia. (Spotfacing: 11 mm dia., depth 6 mm)

type	prefix option	weight ⁽²⁾	
		monost.	bistable
01 (551)	SC	0,35	0,43
02 (552)	SC	0,70	1,00
02 (553)	SC	0,69	0,99
03 (551)	-	0,28	0,36
03 (552)	-	0,81	1,07
03 (553)	-	0,80	1,06

⁽²⁾ Including coil(s) and connector(s).

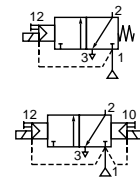
All leaflets are available on: www.ascojoucomatic.com



SOLENOID VALVES

pilot operated, spool type
single/dual solenoid (mono/bistable function)
aluminium body, 1/4 to 1/2

NC



3/2
Series
551
552
553

FEATURES

- All the exhaust ports of this 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 DIN 43650, industry standard, form B with 9,4 mm spacing, or to ISO 15217/DIN 43650 form C with 8 mm spacing. Versions with M12 connector and cable ends
- 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 have TÜV certified IEC 61508 Functional Safety data and can be used up to SIL 4/AK 7
- The solenoid valves satisfy all relevant EC Directives

GENERAL

Differential pressure
Flow (Qv at 6 bar)

2 - 10 bar [1 bar = 100 kPa]
l/min (ANR)

1/4	3/8	1/2
860	3000	3800

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	NBR (nitrile) + PUR (polyurethane)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified
CNOMO size 15 solenoid (pilot) interface

Body	Aluminium, black anodized
End cover (spring)	Glass-filled PA
Spool valve internal parts	Zamak, st. steel, POM, aluminium
Pilot body	PAA
Pilot internal parts	POM, PET, stainless steel and brass
Pneumatic interface seal	TPE

ELECTRICAL CHARACTERISTICS

Coil insulation class

F

Connector (types 05/06)

Spade plug (cable Ø 6 - 7 mm)

Connector specification

Type 05: DIN 43650, 9,4 mm, industry standard B
Type 06: ISO 15217 / DIN 43650, 8 mm, form C
Type 07: M12 (CNOMO E03.62.520.N)
Type 08: cable ends (length 0,3 m), EN 60730

Connection

Electrical safety

IEC 335

Electrical enclosure protection

Moulded IP65 [05/06] or IP67 [07/08] (EN 60529)

Standard voltages

DC (=): 24V

(Other voltages and 60 Hz on request)

AC (~): 24V-115V-230V / 50 Hz (prefixes CFSC/CFSD)

prefix option	power ratings				operator ambient temperature ranges (TS) (C°)	voltage		type ⁽¹⁾
	inrush	holding		hot/cold		~	=	
	~	~	(W)	=				
CFSC	1,4	1,2	1,1	1/1,2	-25 to + 60	24-115	24	05-06
	2,1	1,6	1,5	-	-25 to + 60	230	-	
CFSD	1,8 ⁽²⁾	1,6 ⁽²⁾	1,5 ⁽²⁾	1,15/1,35 ⁽²⁾	-25 to + 60	24-115	24	
	2,5 ⁽²⁾	2 ⁽²⁾	1,9 ⁽²⁾	-	-25 to + 50	230	-	
CFVT ⁽³⁾	-	-	-	1,15/1,35	-25 to + 60	-	24	07
CFL ⁽³⁾	-	-	-	-	-	-	-	08

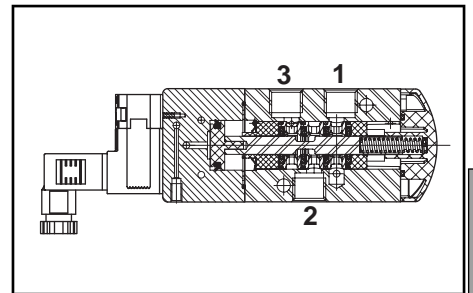
⁽¹⁾ Refer to the dimensional drawings on the following page.

⁽²⁾ Values with LED indicator and protection, use TPL 20674.

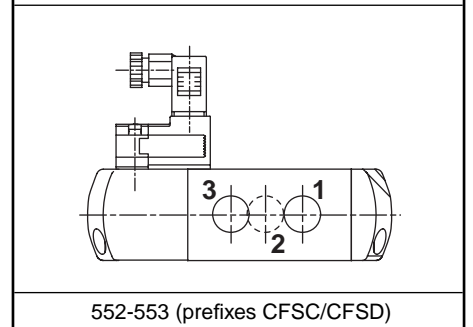
⁽³⁾ Supplied with LED indicator and protection.

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)			power coil (W)		catalogue number				options		
				min.	max. (PS)				connector DIN 43650, 9,4 mm (type 05)	connector DIN 43650, 8 mm (type 06)	M12 (type 07)	cable ends (type 08)	maintained man. operator	impulse man. operator	
					~	=									~
(G)	(mm)	(m³/h)	(l/min)	~	=	~	=	~/=	~/=	=	=				
NC - Normally closed, solenoid air pilot operated - spring return (monostable)															
1/4	6	0,75	12,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG551C505	CFSDG551C505	-	-	MS	MO	-
							-	1,35	-	-	CFVTG551C505	CFLG551C505	MS	MO	-
3/8	12	2,49	41,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG552A505	CFSDG552A505	-	-	MS	MO	-
							-	1,35	-	-	CFVTG552A505	CFLG552A505	MS	MO	-
1/2	13	3,15	52,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG553A505	CFSDG553A505	-	-	MS	MO	-
							-	1,35	-	-	CFVTG553A505	CFLG553A505	MS	MO	-



551 (prefixes CFSC/CFSD)



552-553 (prefixes CFSC/CFSD)

SPECIFICATIONS

pipe size (G)	orifice size (mm)	flow coefficient Kv (m³/h)/(l/min)	operating pressure differential (bar)		power coil (W)		catalogue number				options				
			min.	max. (PS) air (*)			connector DIN 43650, 9,4 mm (type 05)	connector DIN 43650, 8 mm (type 06)	M12 (type 07)	cable ends (type 08)	maintained man. operator	impulse man. operator			
													~	=	~/=
NC - Normally closed, solenoid air pilot operated and return (bistable)															
1/4	6	0,75	12,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG551C506	CFSDG551C506	-	-	MS	MO	-
							-	1,35	-	-	CFVTG551C506	CFLG551C506	MS	MO	-
3/8	12	2,49	41,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG552A506	CFSDG552A506	-	-	MS	MO	-
							-	1,35	-	-	CFVTG552A506	CFLG552A506	MS	MO	-
1/2	13	3,15	52,5	2	10	10	1,3/1,5	1,2/1,35	CFSCG553A506	CFSDG553A506	-	-	MS	MO	-
							-	1,35	-	-	CFVTG553A506	CFLG553A506	MS	MO	-
NC - Solenoid air pilot operated - spring return (monostable), certified IEC 61508 Functional Safety data															
1/4	6	0,75	12,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG551C505SL	CFSDG551C505SL	-	-	-	MO	-
							-	1,35	-	-	CFVTG551C505SL	CFLG551C505SL	-	MO	-

OPTIONS

- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3, to ATEX Directive 94/9/EC (see "Explosionproof Solenoids" section)
- LED and protection, prefixes CFSC / CFSD, use TPL number: TPL 20674 (e.g.: CFSDXG551C505**TPL20674**)
- Straight M12 connector: cable entry Ø4 to 6 mm (catalogue number **88100304**); with 2 m cable length (catalogue number **88100726**); with 5 m cable length (catalogue number **88130212**)
- Supply rail, see page 6
- Other pipe threads are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2m (see Solenoids, Coils & Accessories section)

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- 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), allowable temperature range: -40°C to +60°C. For probability of failure, contact us
- Threaded pipe connection identifier is 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 1/4	34600419 ⁽¹⁾
552	G 3/8	34600478
553	G 1/2	34600479
551-552-553	M5	34600484 ⁽¹⁾

⁽¹⁾ Supplied with suffix "SL".

ORDERING EXAMPLES:

CFSC	G	551	C	505	230V / 50 Hz
CFSD	G	551	C	505	SL 115V / 50 Hz
CFVT	G	552	A	506	MS 24V / DC
CFL	G	551	C	505	SLMO 230V / 50 Hz

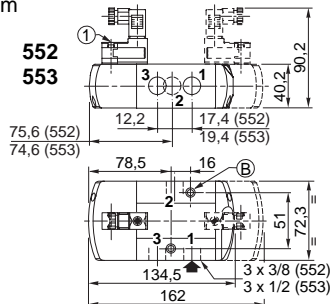
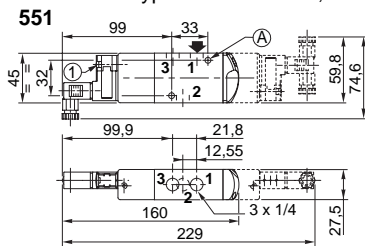
prefix _____ voltage _____
 pipe thread _____
 basic number _____ suffix _____

DIMENSIONS (mm), WEIGHT (kg)



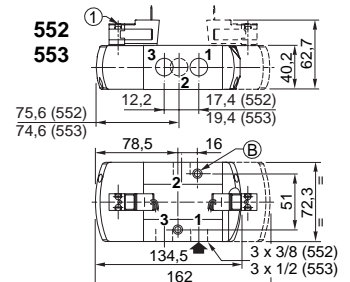
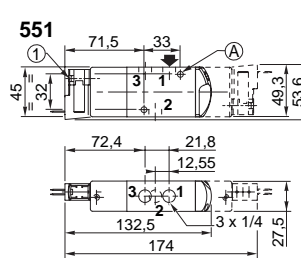
TYPE 05-06

Prefixes "CFSC" / "CFSD"
Polyaramide
IEC 335 / IP65
Type 01: DIN 43650, 9,4 mm
Type 02: DIN 43650, 8 mm



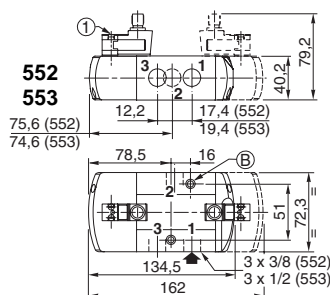
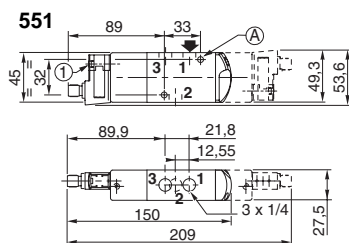
TYPE 08

Prefix "CFL"
Polyaramide
IEC 335 / IP67
Cable ends (length 0,3 m)



TYPE 07

Prefix "CFVT"
Polyaramide
IEC 335 / IP67
M12



- ① Manual operator location
- 2 mounting holes:
- Ⓐ 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)
- Ⓑ 6,5 mm dia. (Spotfacing: 11 mm dia., depth 6 mm)

type	prefix option	weight ⁽²⁾					
		monostable			bistable		
		551	552	553	551	552	553
05	CFSC	0,33	1,1	1,03	0,46	2,18	2,08
06	CFSD	0,33	1,1	1,03	0,46	2,18	2,08
07	CFVT	0,33	1,1	1,02	0,46	2,18	2,08
08	CFL	0,32	1,09	1	0,44	2,16	2,06

⁽²⁾ Prefixes CFSC/CFSD: including connector(s).

ACCESSORIES

supply rail with seals and banjo bolts (without mounting brackets) (1)			
supply rail for "n" valves	catalogue number 551 series	catalogue number 552 series	catalogue number 553 series
		G 1/4	G 3/8
2	88100034	88100800	88100759
3	88100035	88100801	88100760
4	88100036	88100802	88100761
5	88100037	88100803	88100762
6	88100038	88100804	88100763
7	88100039	88100805	88100764
8	88100040	88100806	88100765

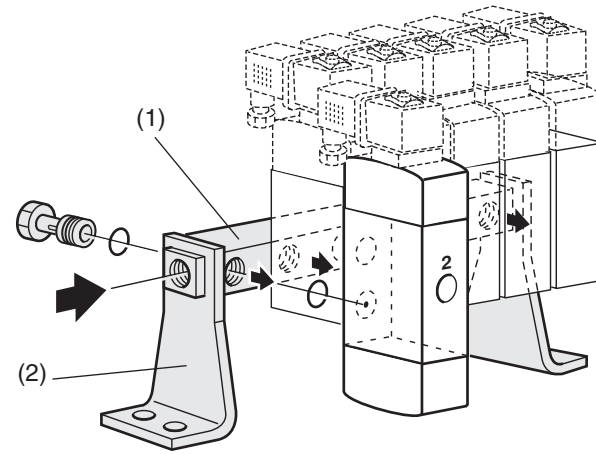
Supply rail with isolation valves (without mounting brackets) (3) - allows the isolation of one or more valves from the general pressure supply	
supply rail for "n" valves	catalogue number 551 series
	G 1/4
2	88100717
3	88100718
4	88100719
5	88100720
6	88100721
7	88100722
8	88100723

series 551	number of valves							
		2	3	4	5	6	7	8
A	108	136	164	192	220	248	276	
B	92	120	148	176	204	232	260	
C	55	83	111	139	167	195	223	
D	78	106	134	162	190	218	246	
E	42	70	98	126	154	182	210	
type	weight (kg)							
01, monostable	0,9	1,3	1,7	2,0	2,4	2,9	3,3	
01, bistable	1,2	1,7	2,1	2,6	3,1	3,6	4,1	
03, monostable	0,9	1,2	1,5	1,9	2,2	2,5	2,8	
03, bistable	1,0	1,4	1,9	2,3	2,7	3,1	3,5	

set of 2 mounting brackets (2)	
series	catalogue number
551	88100049
552-553	88100773



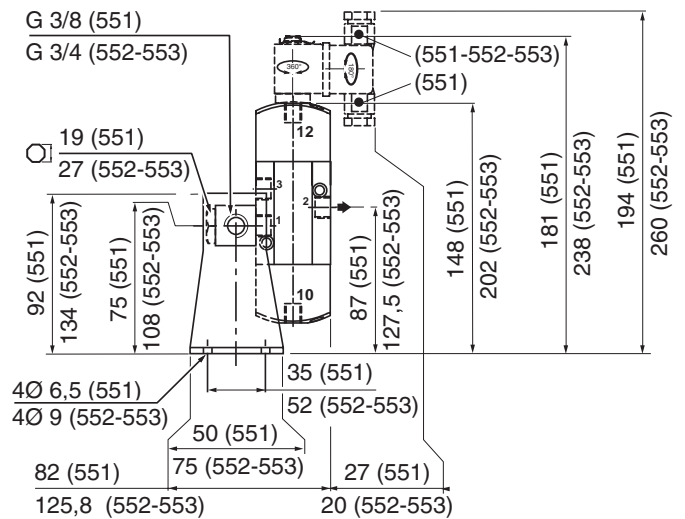
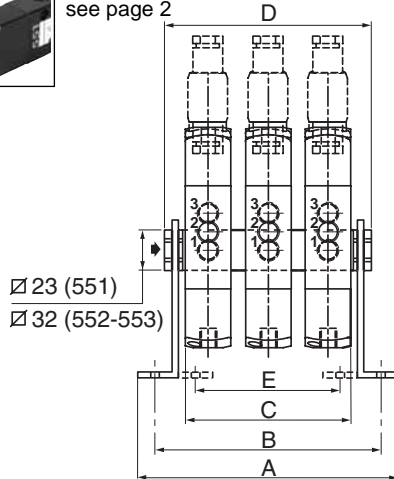
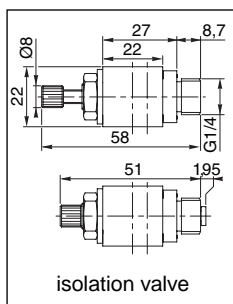
series 552-553	number of valves							
		2	3	4	5	6	7	8
A	136	177	218	259	300	341	382	
B	116	157	198	239	280	321	362	
C	81	122	163	204	245	286	327	
D	117	158	199	240	281	322	363	
E	-	-	-	-	-	-	-	
type	weight (kg)							
02, monostable	2,1	2,9	3,8	4,7	5,6	6,4	7,4	
02, bistable	2,5	3,6	4,8	5,9	7,1	8,1	9,3	
03, monostable	2,0	2,8	3,6	4,5	5,3	6,1	7,0	
03, bistable	2,3	3,3	4,4	5,5	6,5	7,5	8,5	



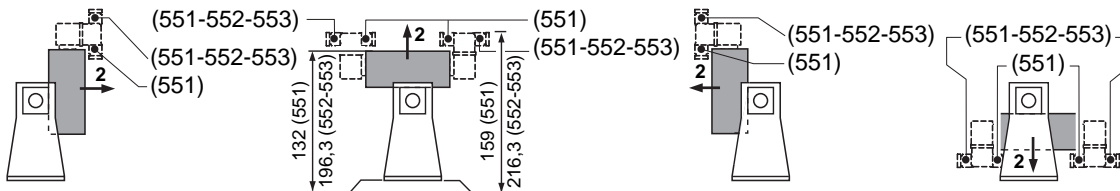
(1) or (3) supply rail
(2) mounting brackets (x2)



TYPE 01-02-03
see page 2



This mounting arrangement allows valves to be mounted in any of 4 positions.



ACCESSORIES

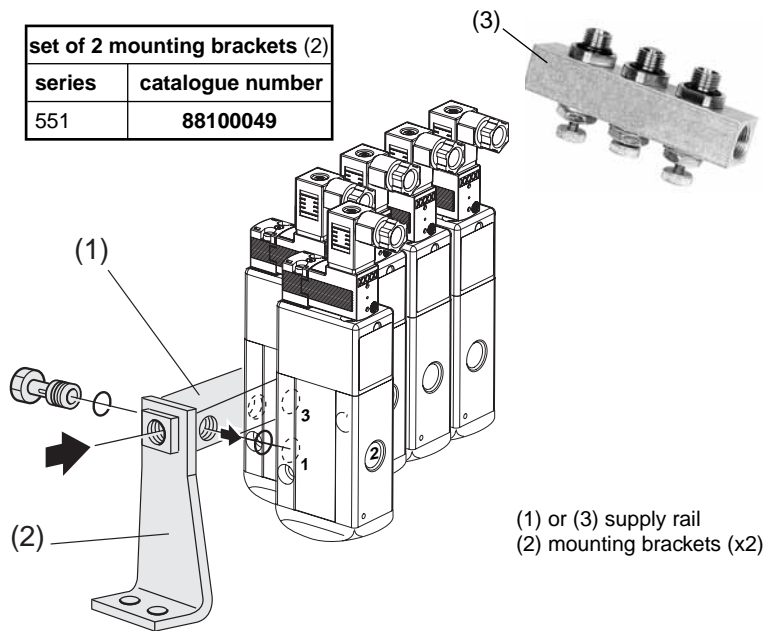
supply rail with seals and banjo bolts (without mounting brackets) (1)	
supply rail for "n" valves	catalogue number
	G 1/4
2	88100034
3	88100035
4	88100036
5	88100037
6	88100038
7	88100039
8	88100040

Supply rail with isolation valves (without mounting brackets) (3) - allows the isolation of one or more valves from the general pressure supply	
supply rail for "n" valves	catalogue number
	G 1/4
2	88100717
3	88100718
4	88100719
5	88100720
6	88100721
7	88100722 </td
8	88100723

series 551	number of valves						
	2	3	4	5	6	7	8
A	108	136	164	192	220	248	276
B	92	120	148	176	204	232	260
C	55	83	111	139	167	195	223
D	78	106	134	162	190	218	246
E	42	70	98	126	154	182	210

type	weight (kg)						
05-06, monostable	0,9	1,2	1,5	1,9	2,2	2,5	2,8
05-06, bistable	1	1,4	1,9	2,3	2,7	3,1	3,5
07, monostable	0,9	1,2	1,5	1,9	2,2	2,5	2,8
07, bistable	1	1,4	1,9	2,3	2,7	3,1	3,5
08, monostable	0,88	1,17	1,46	1,75	2,14	2,43	2,72
08, bistable	0,96	1,34	1,82	2,2	2,58	2,96	3,34

set of 2 mounting brackets (2)	
series	catalogue number
551	88100049



TYPE 05-06-07-08
See page 4

Type 05-06

Type 07

Type 08

