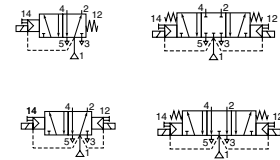




SOLENOID VALVES

pilot operated, spool type
single/dual solenoid
aluminium body, 1/4 to 1/2



5/2-5/3
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)
- Can be externally piloted (external air pilot supply) to convert valve to zero minimum operation by flipping a gasket (ASCO solenoid interface)
- 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

fluids (*)	temperature range (TS)	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	Aluminium, black anodized
End cover (spring)	Glass-filled polyamide
Spool valve internal parts	Zamak, st. steel, POM, aluminium
Core tube, core spring	Stainless steel
Core and plugnut	Stainless steel
Top disc	PA
Pilot seals	FPM, NBR
Shading coil	Copper

OTHERS MATERIALS

Solenoid enclosure Zinc plated steel (epoxy coated)

ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Coil connection	Embedded screw terminal (cable Ø 7 - 12 mm)
Cable entry	Cable gland, polyamide, M20x1,5
Electrical safety	IEC 335
Electrical enclosure protection	IP67 (EN 60529)
Standard voltages	DC (=): 24V - 48V
(Other voltages and 60 Hz on request)	AC (~): 24V - 48V - 115V - 230V / 50 Hz

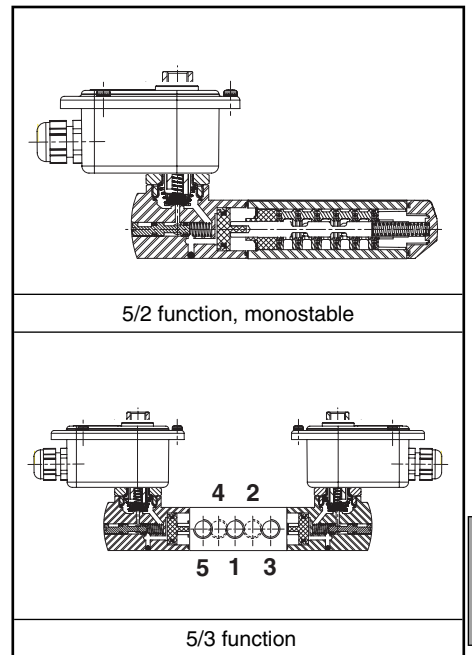
prefix option	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type ⁽¹⁾
	inrush ~ (VA)	holding ~ (VA) (W)		hot/cold = (W)		~ 230 V/50 Hz	= 24 V DC	
		~	=					
WP	55	23	10,5	9/11,2	-40 to +75	400405-117	400405-142	01

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

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)			power coil (W)		catalogue number	options	
				min. ⁽²⁾	max. (PS) air (*)		~	=		impulse / maintained man. operator	
(G)	(mm)	(m³/h)	(l/min)		~	=	~	=	~/=		
5/2 - Solenoid air pilot operated - spring return (monostable)											
1/4	6	0,75	12,5	0 / 2	10	10	10,5	11,2	WPG551B417	MO	- -
3/8	12	2,49	41,5	0 / 2	10	10	10,5	11,2	WPG552A417	MO	- -
1/2	13	3,15	52,5	0 / 2	10	10	10,5	11,2	WPG553A417	MO	- -
5/2 - Solenoid air pilot operated and return (bistable)											
1/4	6	0,75	12,5	0 / 2	10	10	10,5	11,2	WPG551B418	MO	- -
3/8	12	2,49	41,5	0 / 2	10	10	10,5	11,2	WPG552A418	MO	- -
1/2	13	3,15	52,5	0 / 2	10	10	10,5	11,2	WPG553A418	MO	- -
5/3 - W1 - pressure held, solenoid air pilot operated and return											
1/4	6	0,75	12,5	0 / 2	10	10	10,5	11,2	WPG551B467	MO	- -
3/8	12	2,49	41,5	0 / 2	10	10	10,5	11,2	WPG552A467	MO	- -
1/2	13	3,15	52,5	0 / 2	10	10	10,5	11,2	WPG553A467	MO	- -
5/3 - W3 - pressure release, solenoid air pilot operated and return											
1/4	6	0,75	12,5	0 / 2	10	10	10,5	11,2	WPG551B468	MO	- -
3/8	12	2,49	41,5	0 / 2	10	10	10,5	11,2	WPG552A468	MO	- -
1/2	13	3,15	52,5	0 / 2	10	10	10,5	11,2	WPG553A468	MO	- -
5/2 - Solenoid air pilot operated - spring return (monostable), certified IEC 61508 Functional Safety data											
1/4	6	0,75	12,5	0 / 2	10	10	10,5	11,2	WPG551B417SL	-	- -

⁽²⁾ Zero minimum is only achieved if external pressure is applied.



G

OPTIONS

- Valves configured for external pilot air supply with ASCO solenoid interface, TPL 20547
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3, to ATEX Directive 94/9/EC (see "Explosionproof Solenoids" section)
- Compliance with "UL", "CSA" and other local approvals available on request
- Coil insulation class H for max. ambient temperature +80°C, prefix "WPHT"
- 1/2" NPT (prefix "T") and M20 x 1.5 (prefix "ET") conduits (aluminium or 316 SS) available for steel solenoid enclosure
- Low temperature version (-40°C), use suffix "MF"
- Other pipe threads are available on request

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)
- Solenoid enclosure has a cable gland with integral strain relief for cables with an O.D. from 7 to 12 mm and is provided with internal and external grounding terminals
- 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
551-552-553	G 1/8	34600418 ⁽¹⁾
551	G 1/4	34600419 ⁽¹⁾
552	G 3/8	34600478
553	G 1/2	34600479

⁽¹⁾ Supplied with suffix "SL".

ORDERING EXAMPLES:

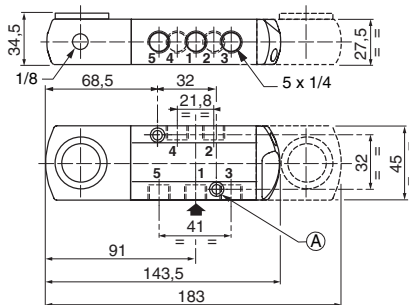
WP	G	551	B	417	230V / 50 Hz
WP	G	551	B	417	SL 230V / 50 Hz
WP	G	553	A	418	MO 24V / DC
WPHT	G	551	B	418	MO 230V / 50 Hz
WP	G	552	A	418	MO 115V / 50 Hz

prefix — pipe thread — basic number — voltage — suffix

DIMENSIONS (mm), WEIGHT (kg)



Series 551

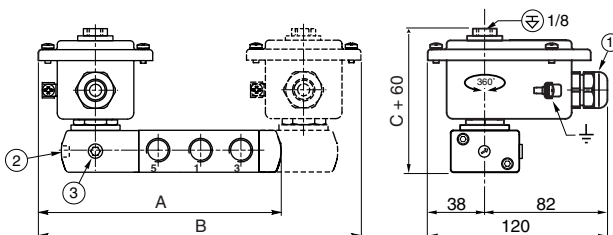


2 mounting holes:

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



TYPE 01
Prefix "WP" Solenoid
Metal, epoxy coated
IEC 335
IP67



- ① Cable gland for unarmoured cable with 7 to 12 mm dia. sheath
- ② Manual operator location
- ③ External pilot air supply, 1/8 pipe size

type	serie	prefix option	A	B	C	weight ⁽²⁾		
						monost.	bistable	W1 - W3
04	551	WP	160	216	103	0,87	1,52	1,52
	552	WP	196,2	256,3	112,5	1,61	2,18	2,18
	553	WP	196,2	256,3	112,5	1,51	2,08	2,08

⁽²⁾ Including coil and cable gland.