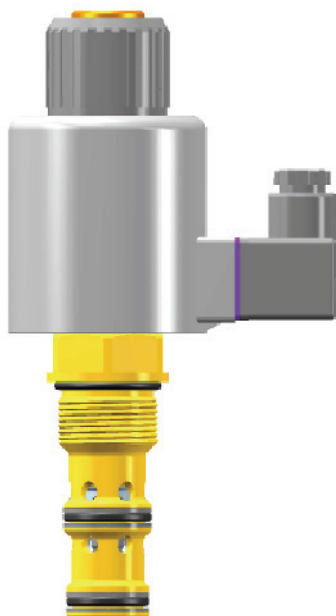


3/2 Solenoid Cartridge Valve, Size 10 Direct Acting, Seat Type Series WSP32GA ...



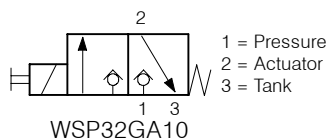
- 315 bar, 60 l/min
- With closed crossover (overlap)
- Wet-armature solenoids with high-pressure core tube and slip-on coil
- Coils can be changed without opening the hydraulic envelope
- Surface protection:
 - all external parts A3C to ISO 4042
 - coil housing is zinc-plated
- BUCHER cavity type DN
- Threaded-port body type GCBA1 (G 1")

1. Description

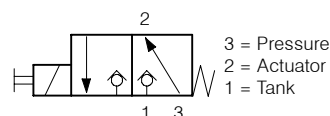
Series WSP32GA... directional valves are screw-in, 3/2 solenoid-operated cartridges, nominal size 10. They are direct-acting seat valves. Thanks to their closed-crossover (overlap) feature, there is no connection between

ports 1, 2 and 3 while the valves are switching. The valves are therefore ideally suited for use with pressure accumulators. The straightforward design delivers an outstanding Price/Performance ratio. All exposed steel parts are zinc-plated, and the valves are suitable for use in the harshest operating environments. The core tube / slip-on coil design allows coils to be changed without opening the hydraulic envelope, even when the valve is under pressure. Coils can be turned through 360° and secured at any angle. For customers who manufacture their own manifold blocks, we offer form tool sets for sale or hire. The GCBA1 body with G 1" port threads is available for pipe-mounting applications.

2. Symbols



A "normally open" function can be created by using the appropriate port connections (see Performance graphs).



3. Main characteristics

Designation		3/2 solenoid valve
Design		direct acting, seat type with closed crossover (overlap)
Mounting method		screw-in cartridge
Size		nominal size 10 mm, BUCHER cavity type DN
Weight	kg	1.20
Mounting attitude		unrestricted
Flow direction		see symbols
Operating pressure range	bar	to 315 in 1 and 2 to 250 in 3
Flow rate, Q _{max}	l/min	60
Fluids		HL and HLP hydraulic oils to DIN 51 524; for other fluids, please consult BUCHER
Fluid temperature range	°C	-25 ... +80
Ambient temperature	°C	-25 ... +50
Viscosity range	mm ² /s (cSt)	10 ... 500; recommended 15 ... 250
Minimum fluid cleanliness level		18/14 to ISO 4406 / CETOP RP70H; 8 ... 9 to NAS 1638
Solenoid		high-pressure, wet-armature solenoid
Nominal voltages	VDC	12, 24, 196; for other voltages, please consult BUCHER
Nominal voltage tolerance	%	± 5
Nominal power consumption	W	39
Relative duty cycle	%	100

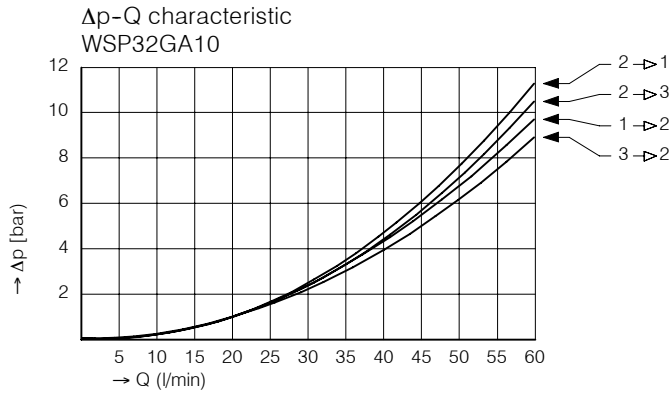
Enclosure protection
Electrical connection

IP 65

3-pin square plug to ISO 4400 / DIN 43 650

4. Performance graphs

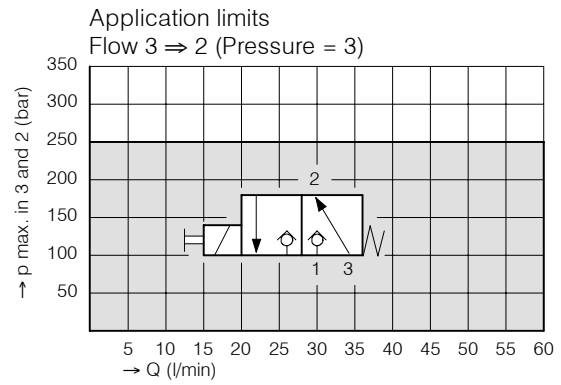
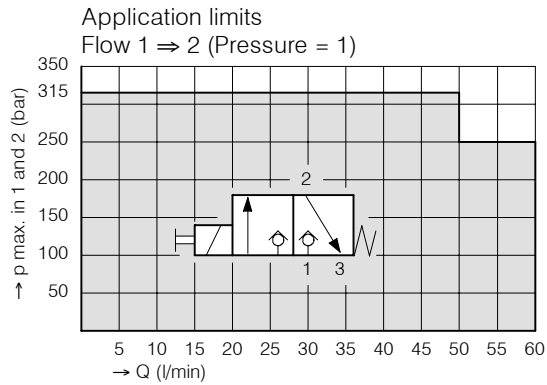
measured with oil viscosity 33 mm²/s (cSt)



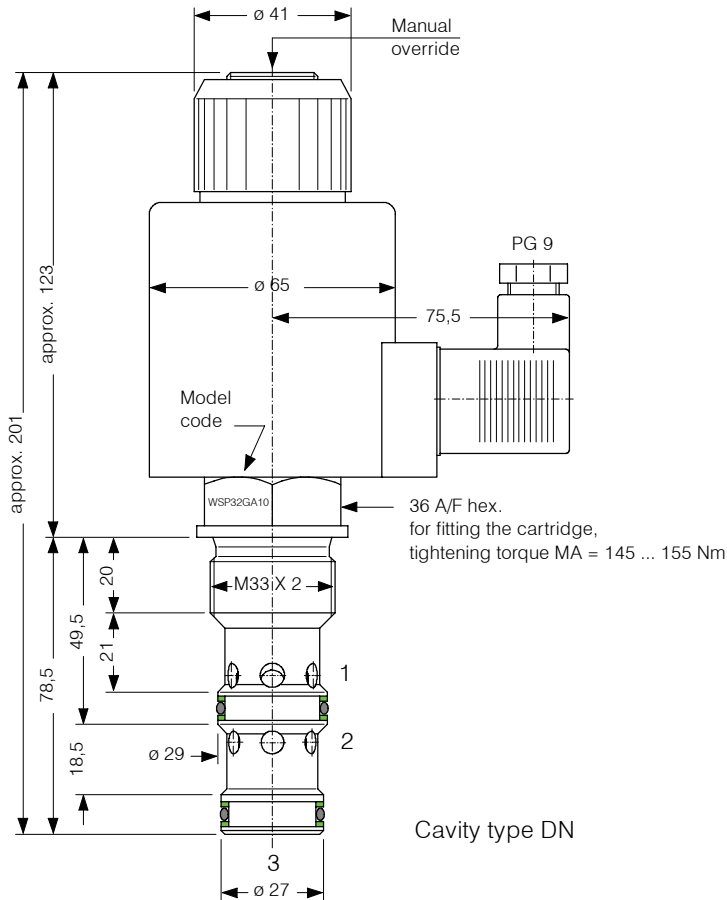
Switching times

Solenoid ON	50 ... 300 ms
Solenoid OFF	30 ... 100 ms

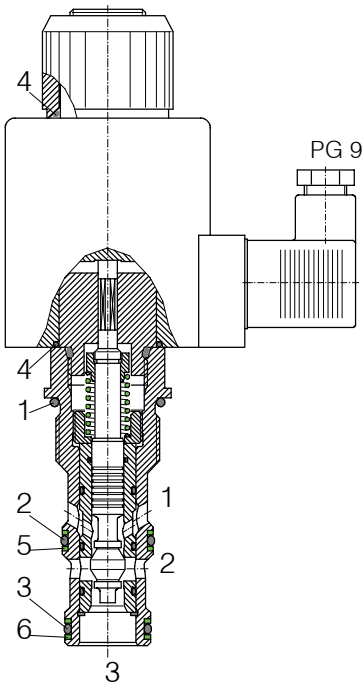
The switching times are strongly influenced by flow rate, pressure and oil viscosity.



5. Dimensions



6. Schematic section



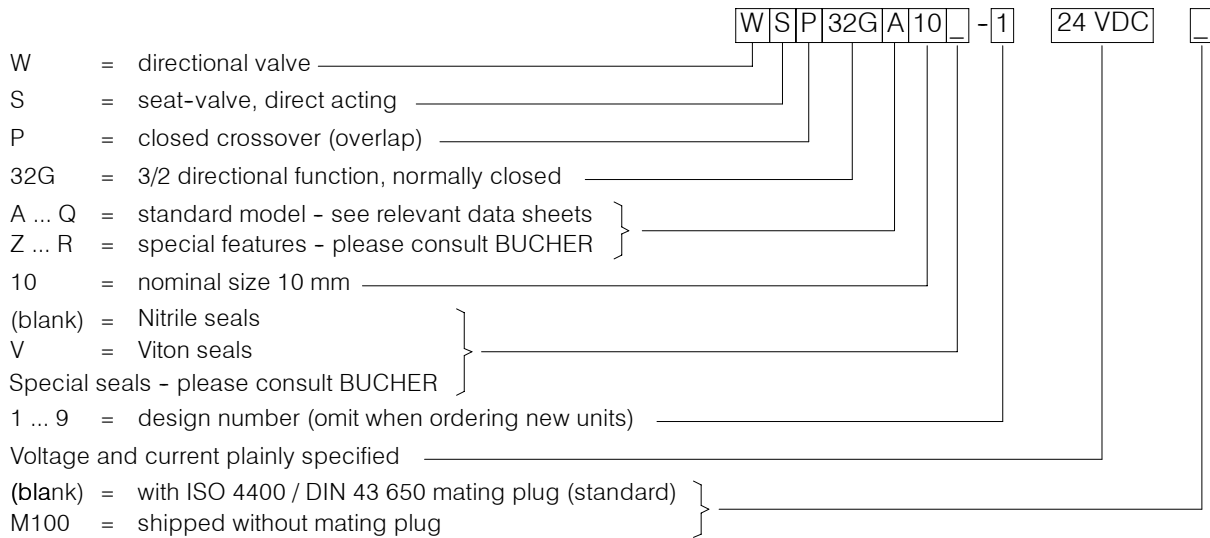
Seal kit no. DS-336, comprising:

lt.	Qty.	Description	Size
1	1	O-ring no. 123	$\varnothing 29.82 \times 2.62$ N90
2	1	O-ring no. 119	$\varnothing 23.47 \times 2.62$ N90
3	1	O-ring no. 118	$\varnothing 21.89 \times 2.62$ N90
4	2	O-ring	$\varnothing 30.00 \times 2.00$ N70
5	1	Backup ring	$\varnothing 22.5 \times 2.0 \times 1.4$ FI0751
6	1	Backup ring	$\varnothing 20.7 \times 2.0 \times 1.4$ FI0751

7. Installation and servicing

All work must be carried out with care and by qualified personnel only. Use the specified tightening torque when fitting the cartridge. When changing seals, oil or grease the new seals thoroughly before fitting them.

8. Ordering code



9. Related data sheets

Old no.	New no.	
i - 32	400-P-040011-D	The Form Tool Hire Programme
i - 45.12	400-P-060190-D	BUCHER Cavity Type DN
G - 24.32	400-P-740141-D	Threaded-Port Body, Type GCBA1 (G 1")

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