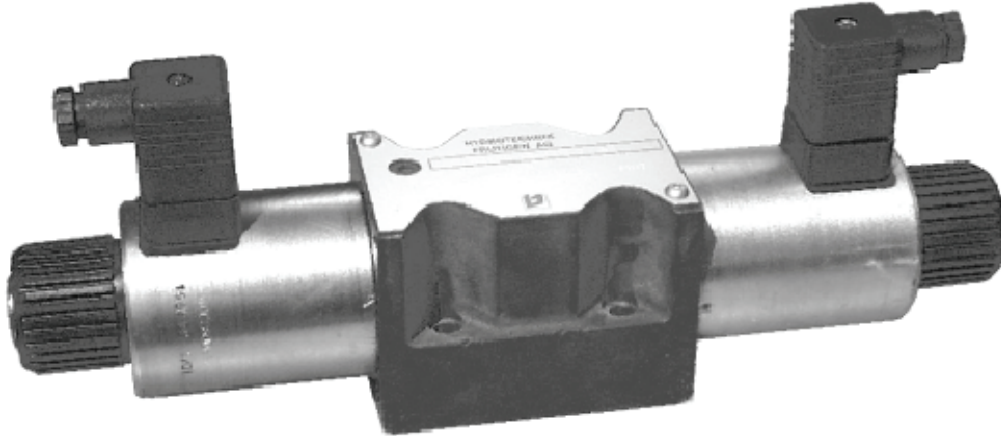


**Solenoid Operated Spool Valve, ISO size 5  
Direct Acting  
Series WEDE ...**



- 315 bar, 120 l/min
- Special opening geometry, high switching performance
- High flow rates
- Good  $\Delta p$ -Q values: no narrowing of flow paths in energised position
- Slip-on coils: coils can be changed without opening the hydraulic envelope.
- Mounting interface to ISO 4401 / CETOP R35H size 5, NFPA D05, DIN 24 340 A10

**1. Description**

Series WEDE ...-10 solenoid operated spool valves are direct acting units. The principal components of the valve are a cast body, a spool with centering

springs and wet armature solenoids with high-pressure core tubes and slip-on coils. A coil can be replaced or the voltage changed without opening

the hydraulic envelope. These valves are optionally available in version with adjustable switching times

**2. Symbols**

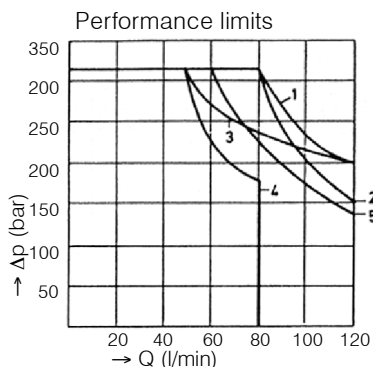
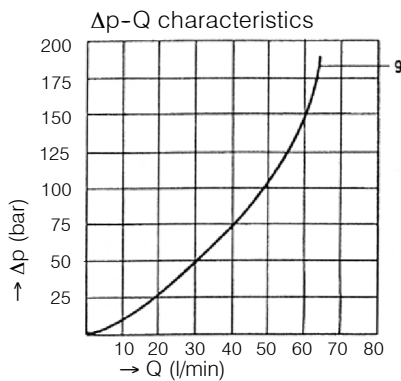
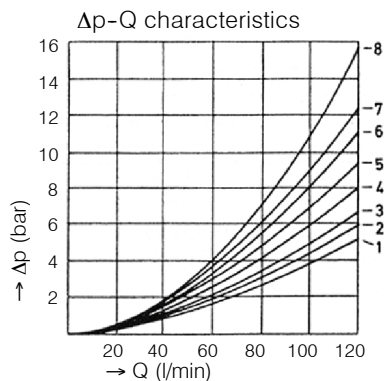
4/2 FUNCTIONS	4/2 FUNCTIONS WITH 4/3 SPOOLS	4/2 FUNCTIONS WITH 4/3 SPOOLS	4/3 FUNCTIONS
WEDE-42-A-10  1	WEDE-42-AD-10  7	WEDE-42-BD-10  13	WEDE-43-D-10  19
WEDE-42-AN-10  2	WEDE-42-AG-10  8	WEDE-42-BG-10  14	WEDE-43-G-10  20
WEDE-42-B-10  3	WEDE-42-AH-10  9	WEDE-42-BH-10  15	WEDE-43-H-10  21
WEDE-42-BN-10  4	WEDE-42-AJ-10  10	WEDE-42-BJ-10  16	WEDE-43-J-10  22
Crossover transients  5	WEDE-42-AGG-10  11	WEDE-42-BGG-10  17	WEDE-43-GG-10  23

### 3. Characteristics

Type		4/2 and 4/3 solenoid controlled spool valves
Design		direct acting
Mounting method		manifold mounting
Size		nominal size 10 mm, ISO 4401 size 5 interface
Mass	kg	4,8 (1 solenoid), 6,3 (2 solenoids)
Mounting attitude		horizontal recommended (vertical mounting makes purging of air more difficult)
Flow direction		see symbols
Operating pressure in P, A und B	bar	max. 315
Operating pressure in T	bar	max. 160
Flow rate Q <sub>max</sub>	l/min	120, see Performance Data
Fluids		Hydraulic oils HL and HLP to DIN 51 524
Fluid temperature range	°C	-25 ... + 80
Ambient temperature	°C	-25 ... + 50
Viscosity range	cSt	10 ... 500, recommended 15 ... 250
Minimum fluid cleanliness		18/14 to ISO 4406 /CETOP RP70H 8 ... 9 to NAS 1638
Magnet type		high pressure, wet armature type (with slip-on coils)
Standard voltages	VDC	12 / 24 / 98 / 196 - for other voltages - contact BUCHER
Nom. voltage tolerance	%	±10
Nom. power consumption	W	39
Duty cycle	%	100
Enclosure protection		IP 65 to DIN 40 050
Electrical connection		3-pin square plug to DIN 43 650 / ISO 4400; can be turned 4 x 90°

### 4. Performance graphs

Oil viscosity 33 cSt



	A / AN spools	2
	B / D spools	1
	BN / H spools	3
	G spool	5
	J spool	4
	GG spool	5

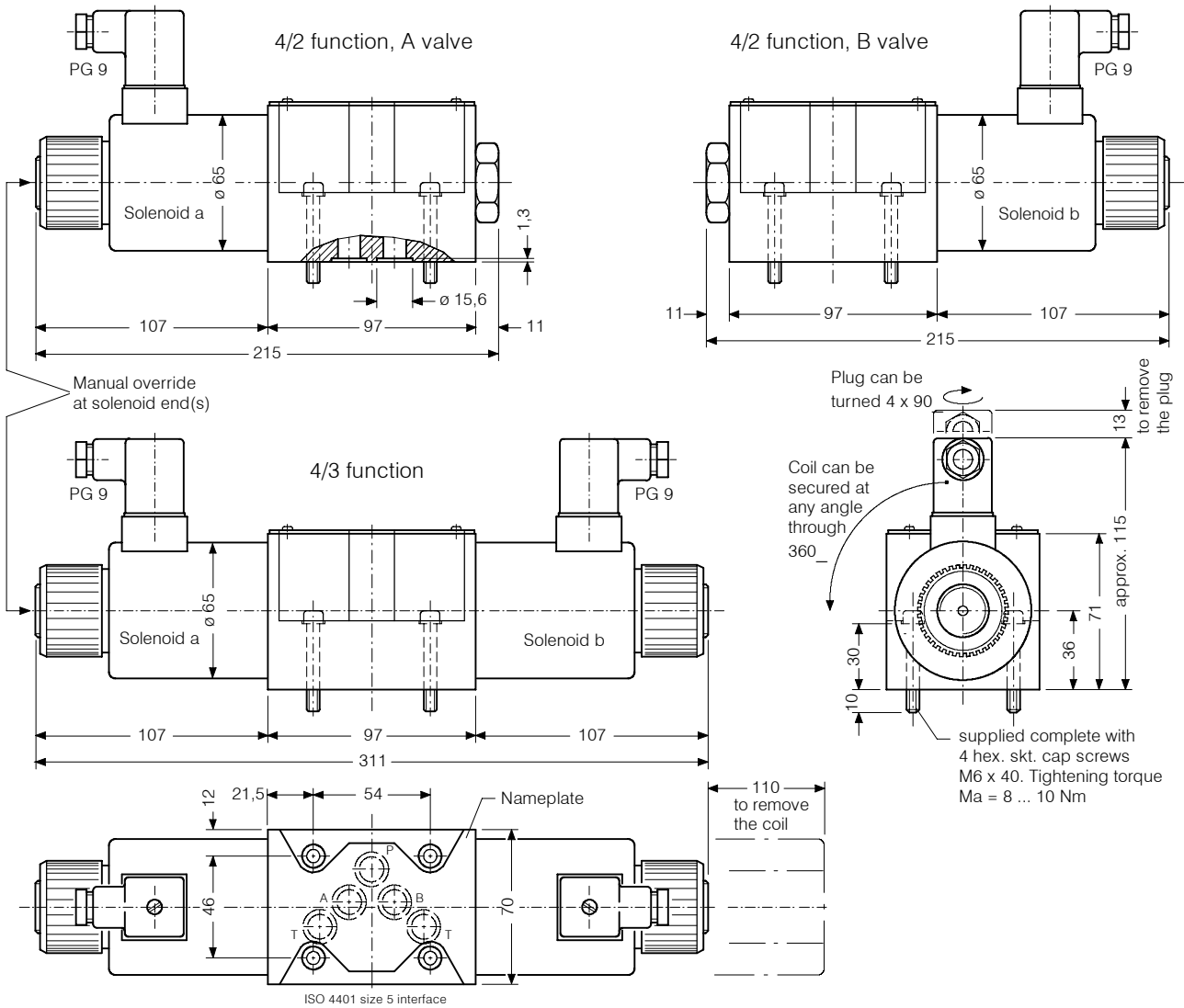
Solenoid	Solenoid					
	P ↑ A	P ↑ B	T ↑ A	T ↑ B	T ↑ P	
	A / B spools	3	3	5	6	--
	AN / BN spool	2	2	4	5	--
	D Kolben	2	2	4	5	--
	G spool	OFF	--	--	5	6
	ON	3	3	6	7	--
	H spool	OFF	--	--	--	3
	ON	1	1	6	7	--
	J spool	2	2	1	8	8
	GG spool	OFF	--	--	9	9
	ON	2	2	5	6	--

The quoted max. flow rates apply when the flows passing through the valve are equal in both directions (symmetrical). For non-symmetrical flows, the max. rates are substantially reduced, in worst cases to only 1/3 of the above values.

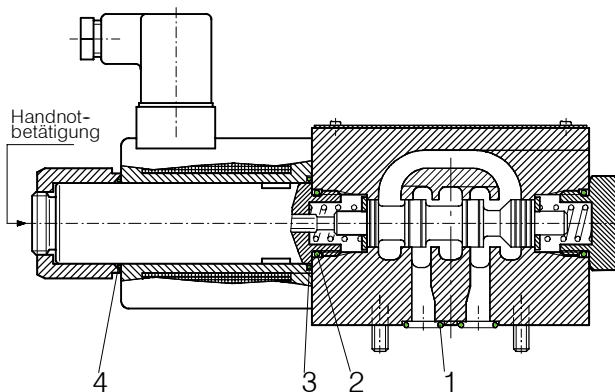
Switching times  
at 60 l/min and 160 bar:

Energising	160 ms
De-energising	45 ms

## 5. Dimensions



## 6. Schematic section



Sealkit No. DS-122-V, comprising \*):

ltn.	Qty.	Qty.	Description	Size
2	5	5*)	O-ring no. 014	Ø 12,42 x 1,78 Viton
1	2	2*)	O-ring no. 118	Ø 21,89 x 2,62 Viton
4	1	2*)	O-ring	Ø 30 x 2,00 N70
5	1	1*)	O-ring	Ø 30 x 2,00 N70

— 4/3 Valves (2 Solenoids)

— 4/2 Valves (1 Solenoid)

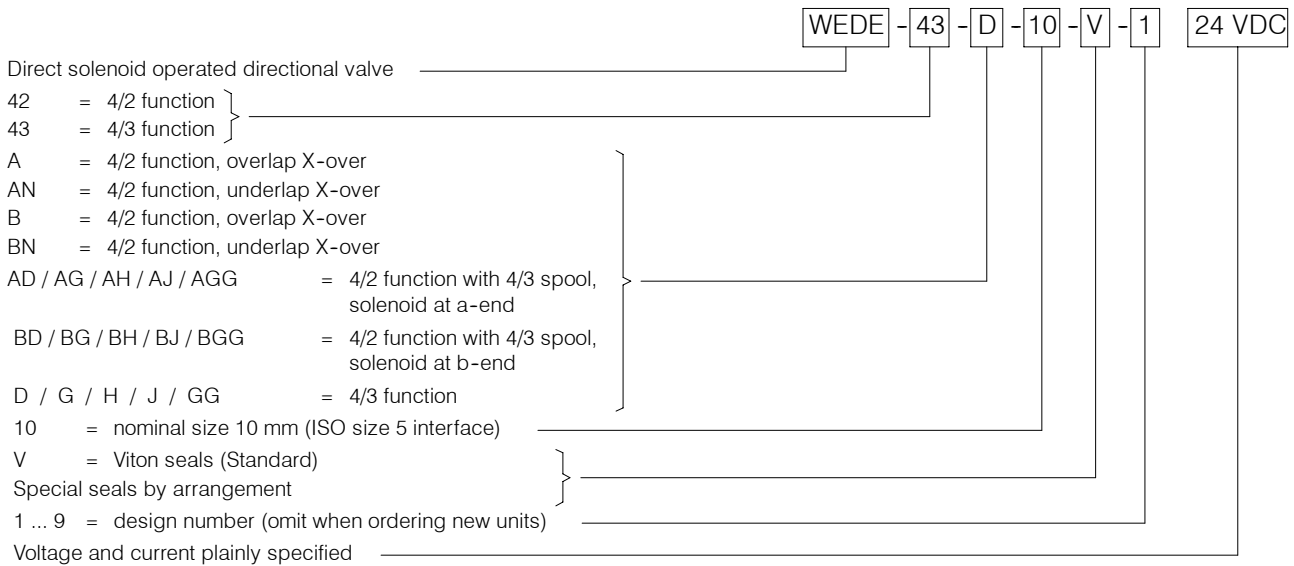
## 7. Installation and servicing

All installation and servicing must be carried out with care, and by qualified personnel only. The following points must be observed: "A" (and "B") spools must not be reversed, or the function  $P \Rightarrow A / B \Rightarrow T$  will become  $P \Rightarrow B / A \Rightarrow T$  (and vice versa for "B"). All other spools

are symmetrical, but should always be reassembled with their original orientation, in any case. When changing seals, the new seals must be thoroughly oiled or greased before they are fitted. Use the specified tightening

torques when fitting the spring cap, DC and the core tube. At installation, make sure that the valve interface aligns with the interface of the mating surface, and use the specified tightening torque when fitting the valve mounting bolts.

## 8. Model code key



## 9. Related data sheets

Old no.	New no.	
i-41	400-P-050101-E	DIN 24 340 size A10 interface

info.ch@bucherhydraulics.com

www.bucherhydraulics.com

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