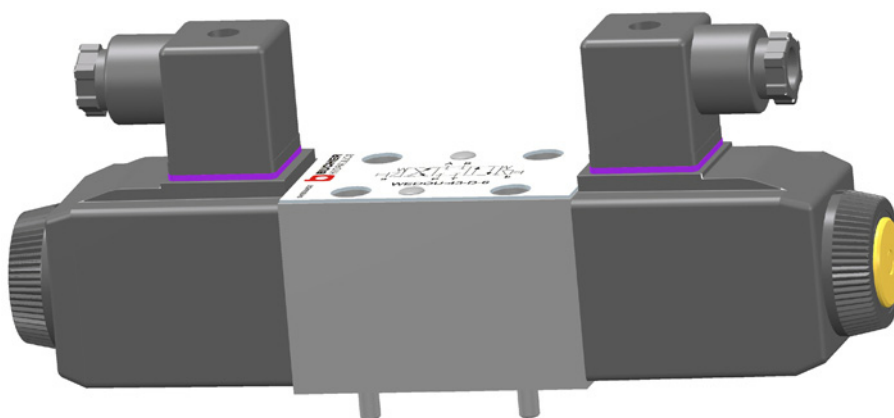


W - 16.20 b**Solenoid Operated Spool Valve, ISO size 3
Direct Acting, Soft Switching**Series WEDOU
40 l/min, 350 bar

- Direct acting solenoid operated spool valve
- Back pressure in Tankport up to 100 bar (dynamic)
- Soft switching (interchangeable orifices $\varnothing 0,7 / 0,8 / 0,9$ mm)
- Sealed hydraulic system with wet armature / slip on spool design
Simple coil changes, even when system is under pressure
- Armature fitted with Teflon Glide Ring to prevent internal leakage and reduce valve hysteresis
- Interface: ISO 4401 / CETOP R35H size 3, NFPA D03, DIN 24 340 A6

**DESCRIPTION**

Series WEDOU...-6 directional valves are solenoid actuated spool-type units. They control the starting and stopping, as well as the direction, of a flow of fluid.

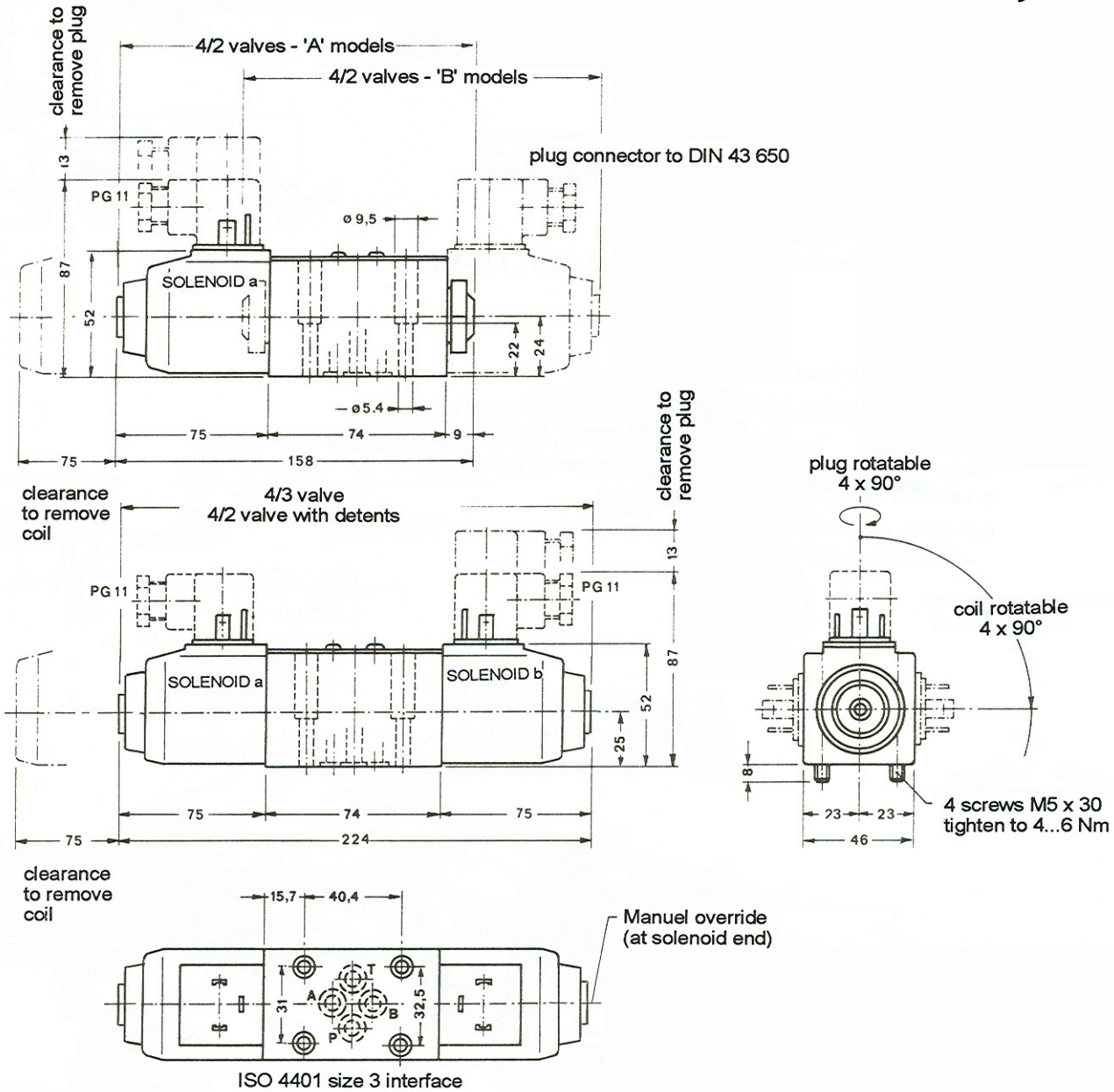
The valve is actuated by a DC solenoid. The coil can be rotated 4 x 90° on the core tube.

The switchover time can be altered by changing the orifice in the armature (see sectional view). Standard orifice diam. = $\varnothing 0,7$ mm (options $\varnothing 0,8$ mm / $\varnothing 0,9$ mm)

When the valve is to be supplied with an orifice size other than 0,7 mm, this

must be clearly specified on the order e.g. WEDOU-43-G-6-V 24 VDC with diam. 0,9 mm orifice.

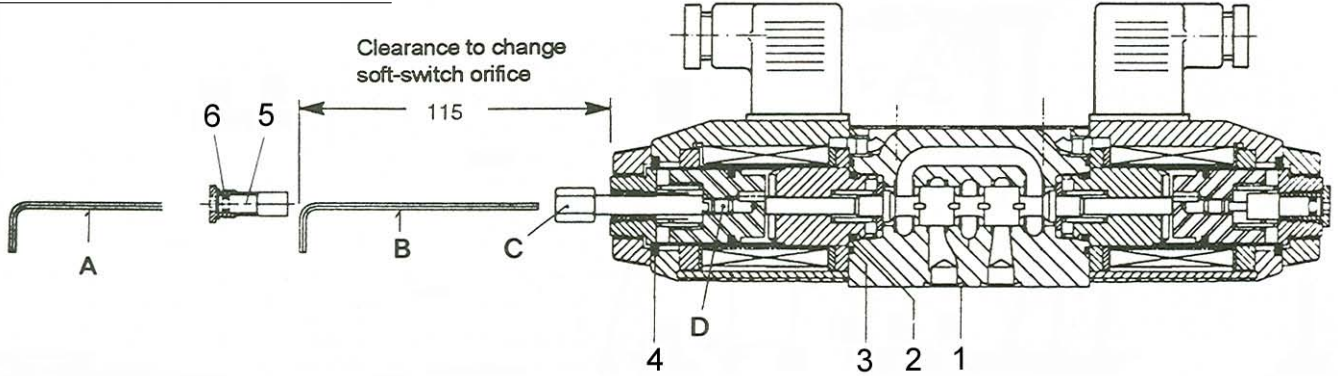
The tank return line must be run in a way which ensures that the valve core tube cannot empty. Consider the use of anti-siphon non-return valves.



SYMBOLS

1 4/2 FUNCTIONS	2 4/2 FUNCTIONS WITH 4/3 SPOOLS	3 4/2 FUNCTIONS WITH 4/3 SPOOLS	4 4/3 FUNCTIONS
WEDOU-42-A-6 	WEDOU-42-AD-6 	WEDOU-42-BD-6 	WEDOU-43-D-6
	WEDOU-42-AG-6 	WEDOU-42-BG-6 	WEDOU-43-G-6
WEDOU-42-B-6 	WEDOU-42-AH-6 	WEDOU-42-BH-6 	WEDOU-43-H-6
Crossover connections 	WEDOU-42-AJ-6 	WEDOU-42-BJ-6 	WEDOU-43-J-6

CHANGING SWITCHOVER TIME



1. remove manual override with 4 A/F hexagon key (item A).
2. using special tool (item C), prevent armature from turning.
3. using 3/32" A/F hexagon key (item B), unscrew existing soft-switch orifice (D= orifice) and screw in new one.
4. replace manual-override

The WEDOU conversion kit comprises:

- B 1 x hexagon key 3/32" A/F
- C 1 x special tool
- D 2 pcs of each orifice size (thread: 10:32 UNF)
 - ø 0.7 (green) also
 - ø 0.8 (blue) available
 - ø 0.9 (red) individually

The WEDOU conversion kit must be ordered separately!

Seal kit no. DS-225 V, comprising *):

It.	Qty.	Description
1	4*)	4 O-ring no. 012 ø 9,25 x 1,78 V75
2	2*)	2 O-ring no. 114 ø 15,54 x 2,62 V75
3	2*)	1 O-ring no. 022 ø 25,12 x 1,78 V75
4	2*)	1 O-ring no. 213 ø 23,39 x 3,53 V75
5	2*)	1 O-ring no. 005 ø 2,57 x 1,78 V75
6	2*)	1 O-ring ø 7,50 x 1,50 V75

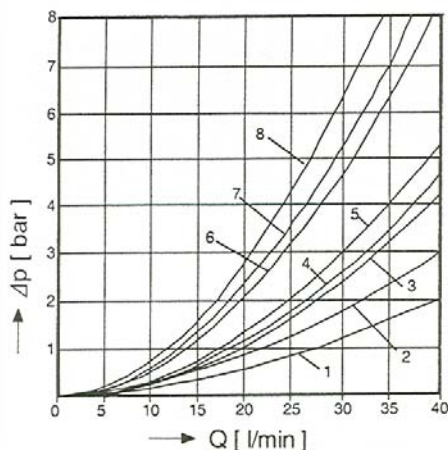
↑ 4/2 directional valve (1 solenoid)
 ↑ 4/3 directional valve (2 solenoids)

PRINCIPAL CHARACTERISTICS

Type	4/2 and 4/3 directional spool valve
Design	direct acting, soft-switching
Mounting Method	manifold mounting
Size	ISO 4401 size 3 interface
Mass	single solenoid: 1,7 kg double solenoid: 2.1 kg
Mounting attitude	horizontal recommended (venting air from core tubes is difficult with vertical mtg).
Flow direction	see symbols
Operating pressure	max. 350 bar in P, A and B 5...100 bar in T (tank)
fluids	normal mineral hyd. oil water-glycols, phosphate esters water-in-oil emulsions
Fluid temp. range	-20°...+70°C

Viscosity range	13...500 cSt (recommended: 13...54 cSt)
Flow rate, Q max	40 l/min (see performance limits)
Min. fluid cleanliness	to 200 bar: 20/16 to 350 bar: 18/14
Elec. connector	to ISO 4406 / CETOP RP70H 3-pin square plug, DIN 43650 rotatable 4 x 90°, protection class IP65 to DIN 40050
Power consumption Solenoid	at 20° C: 36 W pressure tight wet-armature design with core tube and slip-on coil
Standard voltage	24V DC other voltages by arrangement
Voltage variation	+ 10% / 5% allowable
Duty cycle	100%

Δp -Q characteristics



	P > A	B > T	P > B	A > T
A-spools	8	7	4	2
B-spools	8	7	4	2
D-spools	5	4	5	4
G-spools	5	1	5	1
H-spools	5	1	5	1
J-spools	6	3	6	3

SWITCHING TIMES

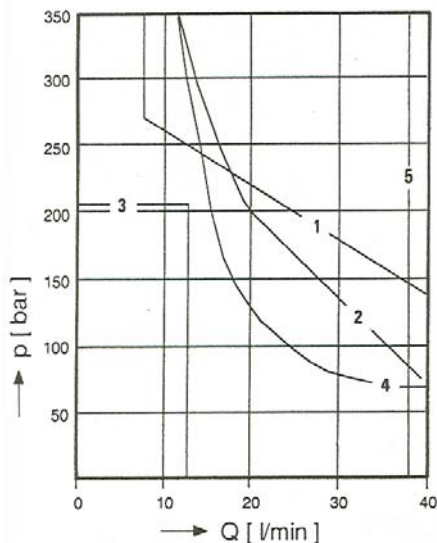
measured with D spool at Q = 20 l/min, p = 210 bar
100% voltage, oil temperature +38° C, viscosity 21 cSt

Orifice diameter [mm]	SWITCHING TIME		COLOUR
	ON [ms]	OFF [ms]	
0,7 (standard)	625	550	Green
0,8	400	375	Blue
0,9	250	250	Red

Switching times are influenced by flow rate, pressure, viscosity, supply voltage and coil temperature.

To achieve switching times which are least influenced by variations in supply voltage and coil temperature, we recommend the use of our specially developed connector plug, type LRS (see data sheet P-20).

Performance limits



A-spools	4
B-spools	4
D-spools	1
G-spools	2
H-spools	5
J-spools	3

When the valve is to be supplied with an orifice size other than 0.7 mm, this must be clearly specified on the order: e.g. WEDOU-43-G-6-V-_-24 V DC.

The WEDOU conversion kit must be ordered separately.

MODEL CODE KEY

Elec. operated direct-acting directional valve

- U = soft switching
- 42 = 4/2 function
- 43 = 4/3 function
- A = 4/2 valve with solenoid at A end
- B = 4/2 valve with solenoid at B end
- AD,AG,AH,AJ = 4/3 spool, solenoid at A end
- BD,BG,BH,BJ = 4/3 spool, solenoid at B end
- D,G,H,J = 4/3 spool, solenoid at both ends
- 6 = ISO 4401 size 3 interface
- V = Viton seals (standard)
- special seals by arrangement (contact HTF)
- 1...9 = Design No. (omit when ordering)

Voltage and current clearly specified

W E D O U - 4 3 - G - 6 - V - _ - 2 4 V D C