

Servo valves Series LR

Flow control - LRWA4

3/3-way servo valves for the flow control



- » Rotary slide principal, metal to metal seal
- » Space saving design at high flow rate
- » Electronic closed loop slide position control, high precision
- » Integrated electronics, ready to connect
- » 3-way-function with nominal size 4 mm or 6 mm
- » Sub-base mounting version

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CONTROL

The servo valves LRWA3 and LRWA4 are direct driven 3/3-way valves with patented rotary slide principle and electronic closed loop slide position control.

The servo valves are supplied with the body containing the valve with the electronic board and the corresponding sub-base with G 1/4 ports.

GENERAL DATA

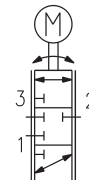
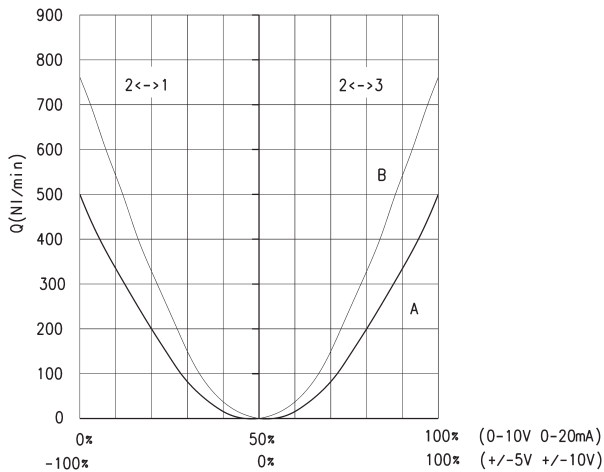
Power supply	24 VDC +/- 10%, stabilized, max. 0,8 A
Input specified value	+/- 10VDC vs. 100 kohm ; 0-10VDC vs. 100 kohm ; 0-20mA vs. 500 ohm; +/- 5VDC vs. 100 kohm
Hysteresis	approx. 1% FS related to slide position
Linearity	approx. 1% FS related to slide position
Frequency limit (-3dB, -90°)	at +/-100% spec. val.: approx. 70 Hz; at +/- 50% spec. val.: approx. 110 Hz
Switching time	0 to 100%: approx. 5 ms; +/- 100%: approx. 7 ms
Temperature range	0 to 50° C
Relative humidity of air	max. 90%
Direction of assembly	any
Weight of cartridge	approx. 1,0 kg
Maximum flow rate (fully opened)	6 bar to 0 bar: 500 NI/min (LRWA4-34) 800 NI/min (LRWA4-36) 6 bar to 5 bar: 350 NI/min(LRWA4-34) 550 NI/min(LRWA4-36)
Medium	clean air, oiled or not oiled, 5 µm filtered
Supply pressure	-0,9 to 10 bar
Leakage	< 1% of maximum flow rate

CODING EXAMPLE

L	R	W	A	4	-	3	4	-	1	-	A	-	00
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L	SERIES: L = Proportional servo valves
R	TECHNOLOGY: R = rotary
W	VERSION: W = flow control
A	ELECTRONICS: A = analogic
4	MODELS: 4 = with sub-base
3	FUNCTION: 3 = 3 way
4	DIAMETER: 4 = 4 mm 6 = 6 mm
1	INPUT SIGNAL: 1 = +/- 10V 2 = 0-10 V 3 = 0-20 mA 4 = +/- 5 V
A	FEEDBACK SIGNAL: A = internal encoder
00	CABLE: 00 = no cable

Accessories: CS-PF07CB

FLOW DIAGRAM (NI/min) vs INPUT SIGNAL (%)


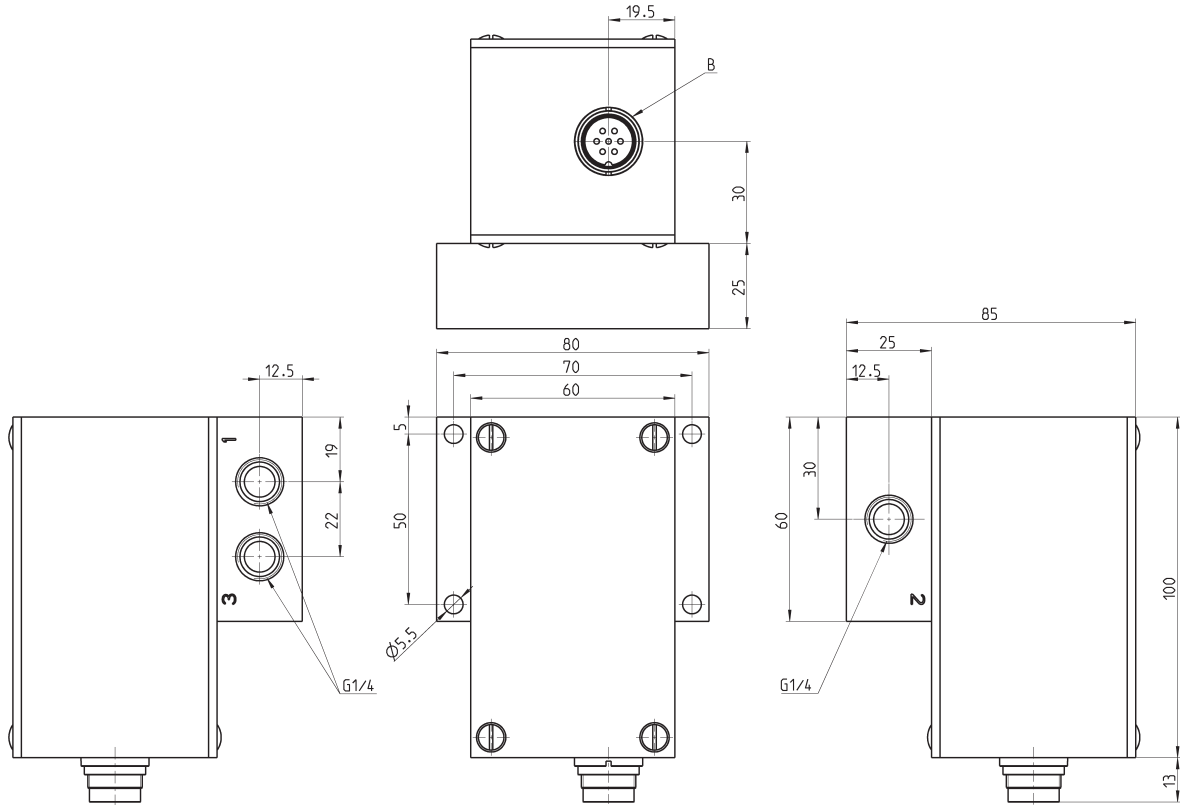
A: LRWA4-34
 B: LRWA4-36

SERVO VALVES LRWA4 - PNEUMATICAL INSTALLATION



The typical modes of installation to control a pneumatical load are the modes I and II (see chart below); the only difference is the relation between directions of flow and specified value. Low specified electric values connect always ports 1 and 2, high specified values ports 2 and 3

The modes III and IV allow flow control of two pneumatical loads with only one servo valve. The inner diameters of connected fittings and tubes should correspond to the nominal size of the valves:
at least 4 mm for LRWA4-34;
at least 6 mm for LRWA4-36.



THE LENGTH OF THE LEADS SHOULD BE AS SHORT AS POSSIBLE, BETWEEN VALVE-OUTLET AND LOAD NORMALLY NOT MORE THAN 2 mts.

APPLICATION MODES TABLE

MODES/Ports	1	2	3
Mode I	P	A	R
Mode II	R	A	P
Mode III	A	P	B
Mode IV	A	R	B

B - ELECTRICAL CONNECTIONS(Pin configuration)

PIN	FUNCTION	NOTES
1	Power supply +24 VDC	
2	power supply GND	
3	Input signal	
4	Input signal GND	Pin 4 and 2 should be connected. If that is not possible, the voltage between both GND's may not increase +/- 30 V.
5	NC	
6	NC	
7	NC	