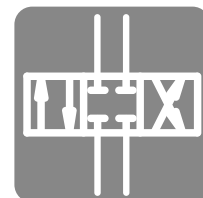
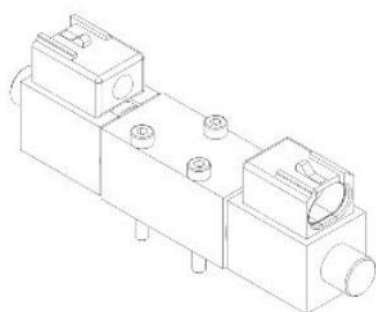


# Directional spool valve type WLA 3

operating pressure $p_{max}$	250 bar
volume flow $V_{max}$	8 l/min



## Product characteristics

Directional spool valves are a type of directional valve. They control the direction of movement and the velocity of single and doubleacting hydraulic consumers.

The 4/3 directional spool valve type WLA 3 is available as a manifold mounting valve. It is suitable for direct mounting on cylinder and interlinked systems with smallest construction volume. With low weight and relatively high flow rate, the directional spool valve type WLA 3 achieves operating pressures up to 250 bar.

### Features and benefits:

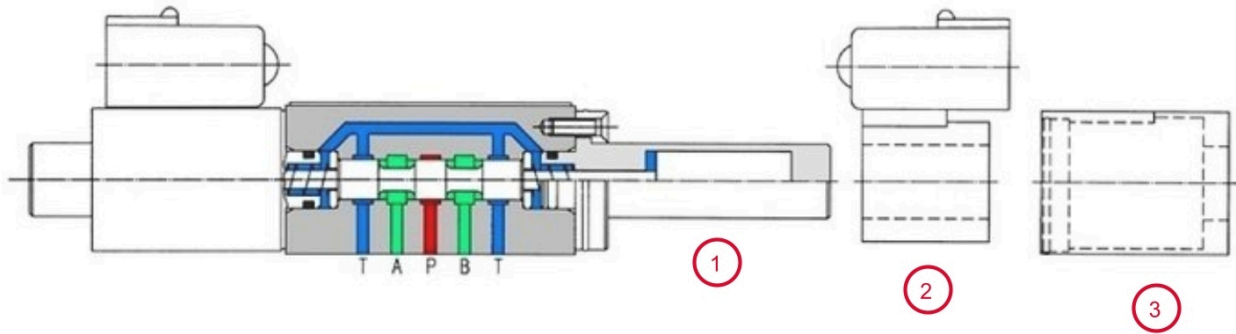
- small and light
- low noise and wear
- robust and resistant
- long service life
- low leakage 3-30 cm<sup>3</sup>/min, depending on operating conditions and symbol

## Table of Contents

Structure.....	2
Technical data.....	3
Characteristic lines.....	5
Dimensions and connections.....	6
Order information.....	8

## Structure

### Structure and function 4/3 directional spool valve



- 1 pressure tube 250 bar
- 2 solenoid coil
- 3 housing

The piston valve is held in the middle position by springs. The piston valves are actuated by pressure-tight solenoids. The solenoids are normally equipped with an emergency actuation to switch the piston valve with a tool without actuating the solenoid.

## Technical data

### General

designation	directional spool valve WLA 3
type	spool valve
connection type	flange
mounting position	arbitrary
flow direction	according to symbol
weight	4/2-way: 410 g 4/3-way: 560 g

### Hydraulic parameters

Hydraulic fluid: mineral oil according to DIN 51524, other media on request

max. operating pressure	250 bar
nominal flow rate ( $\Delta p = 1$ bar)	2 l/min
max. volume flow	8 l/min
hydraulic fluid temperature	-10 to +80 °C
viscosity	10-320 mm <sup>2</sup> /s
filter recommendation	25-40 µm

### Switching symbols

symbol								
number	011A	021A	031A	101A	011B	021B	031B	101B
overlap	=	-	+	+	=	-	+	+
symbol								
number	0110	0210	0310					
overlap	=	-	+					

## Actuation

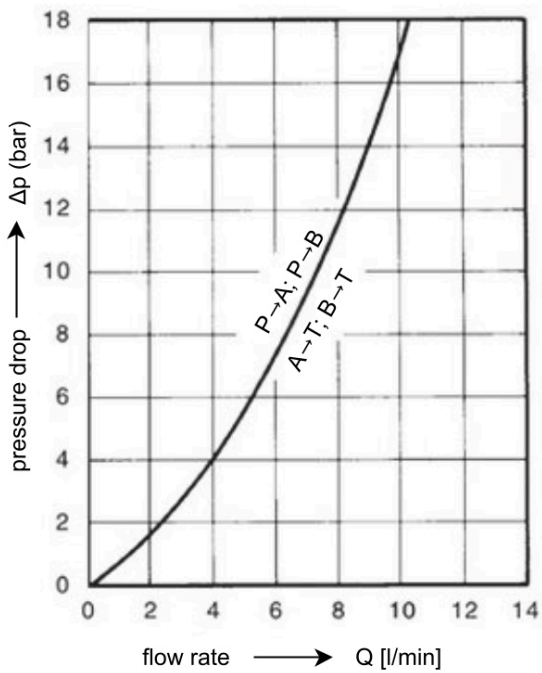
nominal voltage	12 or 24 V DC
power consumption	10 W
relative duty	dependent on ambient up to 100 % of duty cycle
protection class (DIN 40050)	up to IP 65 using an appropriate connector
current supply	connector AMP-Superseal

## Typical switching times

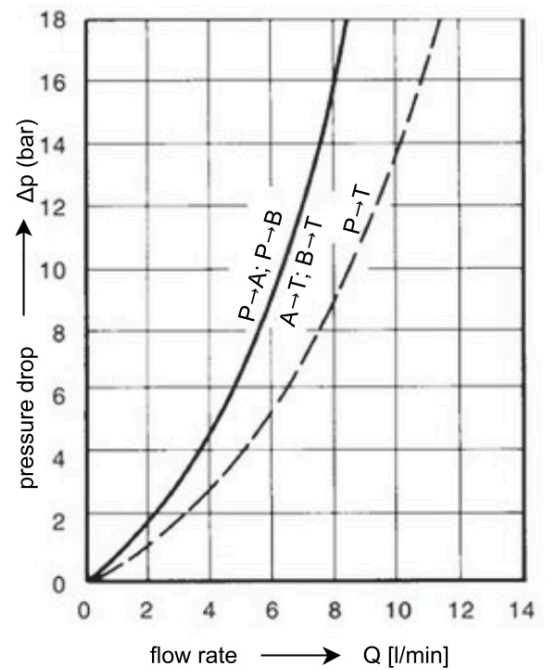
overlap	+	=	-
ON $t_E$	30 ms	25 ms	50 ms
OFF $t_A$	10 ms	15 ms	20 ms

working conditions: temperature of solenoid 25 °C, viscosity 32 mm<sup>2</sup>/s, operating pressure 250 bar

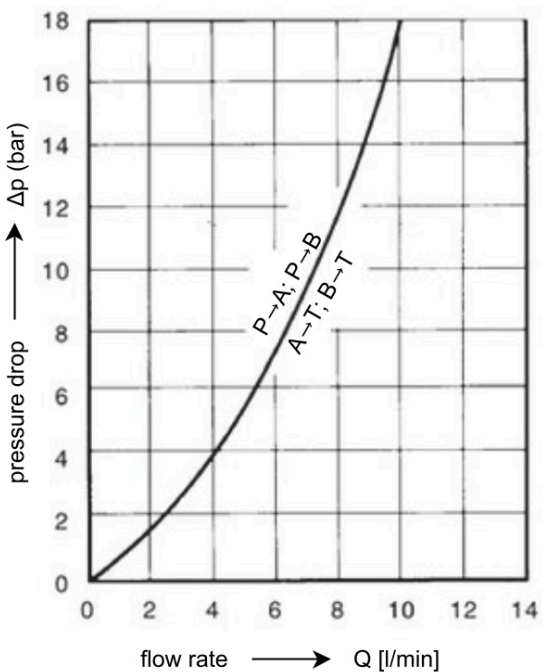
## Characteristic lines



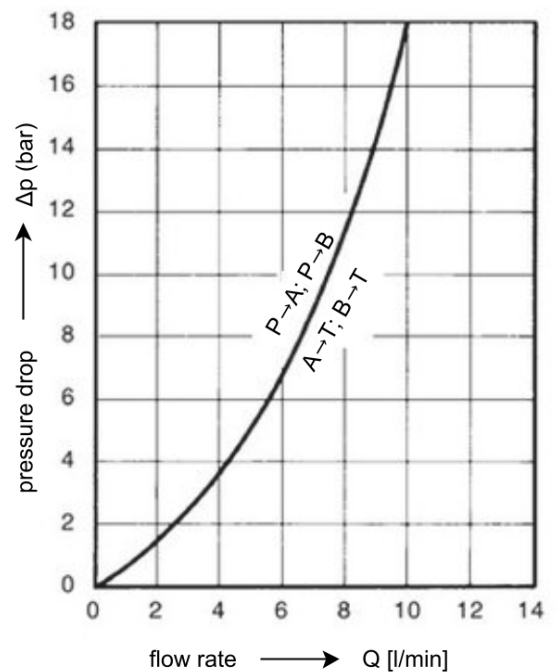
switching symbol 011



switching symbol 021



switching symbol 031



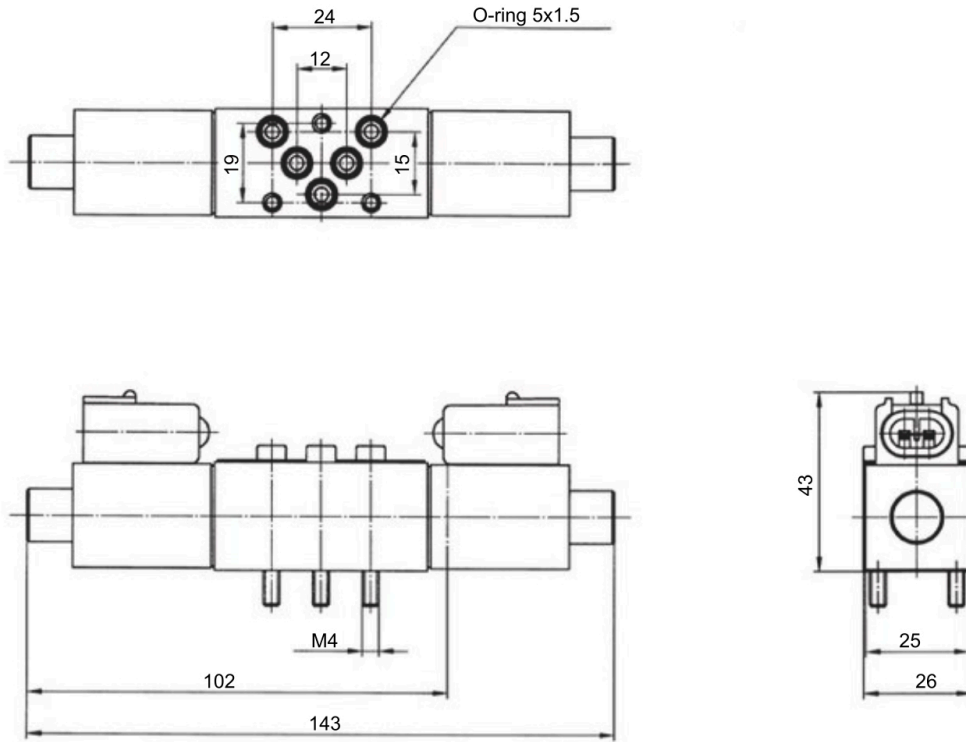
switching symbol 101

## Dimensions and connections

Dimensions are given in mm.

WLA 3 with solenoid type M

short solenoid with connector AMP-Superseal

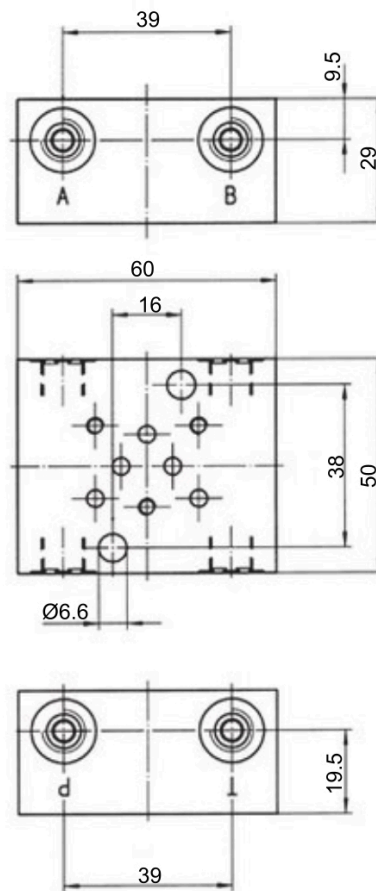


**Single connecting plate**

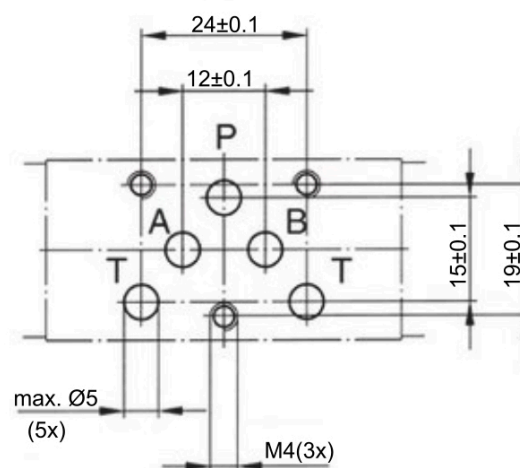
**Single connecting plate 6964 0044-04**

for radial port connection M10x1 to mount a directional spool valve WLA 3, respectively a stacking system DN3.

Connection of high pressure hose for quick assembly HS3 possible.



**Connection pattern WLA 3**



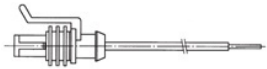
## Order information

### Type code

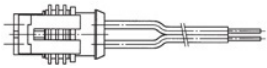
WLA 3	-021A	-MD		
			<b>solenoid connector/ voltage</b>	
			M D	plug AMP-Superseal 24 V DC without connector
			M E	plug AMP-Superseal 12 V DC without connector
	<b>symbol</b>	011A	011B	0110
		021A	021B	0210
		031A	031B	0310
		101A	101B	
<b>type</b>	directional spool valve			

Fastening screws (3 pieces M4 x 35) are included in the delivery as loose parts.

Connectors are not included in the delivery. Order separately.



connector AMP-Superseals  
2-pin cable, resistant to hydraulic fluid, cable length  $1,500 \pm 50$  mm, stranded wire cross section  $2 \times 0.75$  mm<sup>2</sup>, black/red, strand of stripped 10 mm  
UL approval on request



order number 325.6001



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