2-way Logic Cartridge Valves Directional Function

Model: LC...7XJ(logic cartridge valves) LFA...7XJ(control cover)



◆ Maximum working pressure 420 bar

ГИДРООТВЕТ доступная гидравлика

◆ Maximum working flow 3000 L/min

Contents

Function description, sectional drawing	02
Component size	03
Logic cartridge valves models and specifications	04
Technical parameters	04-05
Characteristic curve	06
Characteristic curve for throttle selection	07
Ordering code for throttle	07
Valve fixing screw	80
Control cover "D"	09
Control cover "H."	10-11
Control cover "G"	12
Control cover "R" and "RF"	13
Control cover "WEA" and "WEB"	14-15
Control cover "WEMA" and "WEMB"	16-17
Control cover "WECA"	18-19
Control cover "GWA" and "GWB"	20-21
Control cover "KWA" and "KWB"	22-24

Features

- Valve poppet with or without damping nose
- 2 area ratios
- 4 types of springs
- 4 stroke limitations
- Control cover with integrated seat valve
- Control cover with integrated shuttle valve
- Control cover for set-up of directional spool valves with or without installed shuttle valve
- Control cover for set-up of directional seat valves with or without installed shuttle valve

The 2-way logic cartridge valves are designed as components for integrated blocks. The main valve component with oil ports A and B is installed into the control block in a receiving hole standardized according to DIN ISO 7368 and closed with a cover. In most cases, the control cover is the connection between the control side of the main valve component and the pilot valve.

By control with respective pilot control valves, the main valve component can be applied for pressure, directional and throttle functions or a combination of these functions. The special economical structural designs can be achieved by matching the size of various flows of the valves and the actuators. If the main valve component can undertake more than one function, the special economical structure can be achieved.

Directional function

The 2-way logic cartridge valves generally consist of control cover (1) and cartridge element (2). The control cover contains control holes, optional stroke limitation according to function, hydraulic control directional seat valve or shuttle valve. In addition, the directional spool valve or directional seat valve can be installed onto the control cover. The cartridge element mainly includes valve sleeve (3), adjustment ring (4) (only applicable to size 32), seat valve (5), optional damping (7) and reset spring (8).

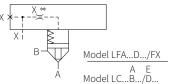
Function

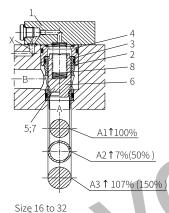
The function of 2-way logic cartridge valves depends on the pressure. Therefore, there are three important pressure-bearing areas A1, A2, A3 for actuation of the valve. The area of the valve seat A1 is taken as 100%. Depending on the type, the annulus area A2 is 7% or 50% of the area A1. Therefore, the area ratio A1:A2 is either 14.3:1 or 2:1. The area A3 is equal to A1+A2. Due to the different area ratios A1:A2, the annulus area A2 is also different. The area A3 may be 107% or 150% when 100% area at seat A1.

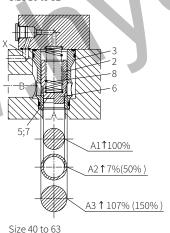
Basic application

The areas A1 and A2 are operated in the opening direction. The area A3 and the spring are operated in the closing direction. The effective direction generated by the combination of the opening and closing directions determines the position of the spool of the 2-way logic cartridge valve.

The oil can flow from A to B or B to A through the 2-way logic cartridge valve. When the area A3 is compressed by the pilot oil of channel B or external pilot oil supply, the channel A is closed without leakage."

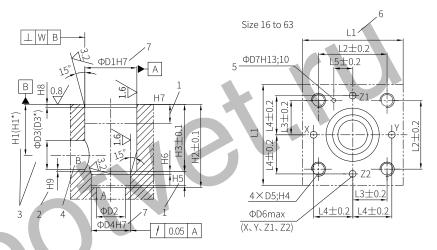






Control cover and installation hole according to ISO 7368

Component size



1 Depth of fit 2 Reference dimension

3 If the diameter of port B is not Φ D3 or $(\Phi D3^*)$, then the distance from the cover support surface to the center of the hole must be calculated. 4 Port B can be installed around the central axis of port A, but it must be ensured that the installation hole and pilot hole are not damaged 5 Locating pin hole 6 The length L1 (x-y axis of the hole) of

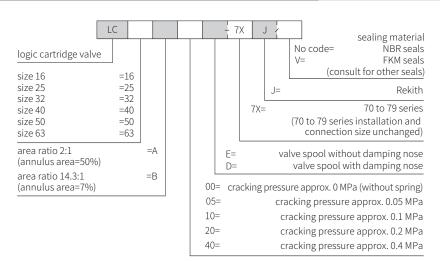
the control cover (with directional valve) is 80mm for size 16. 7 If D ≤ 45mm, H8 is allowed to be

installed.

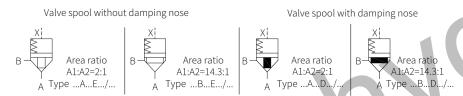
Size	16	25	32	40	50	63
ΦD1	32	45	60	75	90	120
ΦD2	16	25	32	40	50	63
ФD3	16	25	32	40	50	63
ΦD4	25	34	45	55	68	90
ΦD5	M8	M12	M16	M20	M20	M30
ΦD6	4	6	8	10	10	12
ФD7	4	6	6	6	8	8
H1	34	44	52	64	72	95
(H1*)	29.5	40.5	48	59	65.5	96.5
H2	56	72	85	105	122	155
Н3	43	58	70	87	100	130
H4	20	25	35	45	45	65
H5	11	12	13	15	17	20
H6	2	2.5	2.5	3	3	4
H7	20	30	30	30	35	40
H8	2	2.5	2.5	3	4	4
H9	0.5	1	1.5	2.5	2.5	3
L1	65/80	85	102	125	140	180
L2	46	58	70	85	100	125
L3	23	29	35	42.5	50	62.5
L4	25	33	41	50	58	75
L5	10.5	16	17	23	30	38
W	0.05	0.05	0.1	0.1	0.1	0.2

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Logic cartridge valves models and specifications



Logic cartridge valves functional symbols



Technical parameters

Maximum	without directional valv	e bar	420		
working	port A, B, X, Z1, Z2	bar	315;350; 420 (dependent on the attached directional valve)		
pressure	port Y	bar	Depending on the return oil pressure of the directional valve		
Pressure medium			Mineral oil - for NBR seal or FKM seal		
riessule III	ledidili		Phosphate ester - for FKM seal		
Draceura	adium tamparatura ranga	.°C	-30 to +80 (NBR seal)		
Pressure III	iedium temperature range		-20 to +80 (FKM seal)		
Viscosity ra	inge	mm²/s	2.8 to 380		
Cleanliness	s of oil		The maximum allowable pollution level of oil is ISO4406 Class 20 / 18 / 15 ¹⁾		

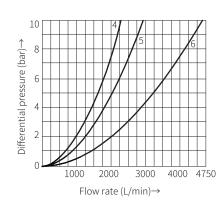
¹⁾The oil must meet the cleanliness degree requested by the components in the hydraulic system. Effective oil filtration can prevent failure and increase the service life of the components.

Technical parameters

2-way logic cartridge valves-directional function

A	M. J.I	Size						
Area	Model	16	25	32	40	50	63	
A1 cm ²	LCA	1.89	4.26	6.79	11.1	19.63	30.2	
AI CIII-	LCB	2.66	5.73	9.51	15.55	26.42	41.28	
10	LCA	0.95	1.89	3.39	5.52	8.64	14	
A2 cm ²	LCB	0.18	0.43	0.67	1.07	1.85	2.90	
A3 cm ²	LCA	2.84	6.16	10.18	16.62	28.27	44.2	
A3 CIII ²	LCB	2.84	6.16	10.18	16.62	28.27	44.2	
Charles	LCE	0.9	1.17	1.4	1.7	2.1	2.3	
Stroke cm	LC,.D.	0.9	1.17	1.4	1.9	2.3	2.8	
Dil i I	LCE	2.56	7.21	14.3	28.3	59.4	102	
Pilot volume cm ³	LCD	2.56	7.21	14.3	31.6	65.0	124	
Theoretical pilot	LCE	15.4	43.3	86	170	356	612	
Flow 1) (L/min)	LCD	15.4	43.3	86	190	390	744	
Weight kg	Logic cartridge valves LC	0.25	0.5	1.1	1.9	3.9	7.2	
	LCA 00	0.02	0.02	0.05	0.05	0.05	0.07	
	LCA 05	0.35	0.35	0.36	0.35	0.37	0.31	
Cracking pressure	LCA 10	0.70	0.68	0.72	0.71	0.67	0.64	
bar	LCA 20	2.03	2.18	2.12	2.02	2.01	2	
	LCA 30	_	_	_	_	_	_	
	LCA 40	3.50	3.90	3.80	4.0	4.11	3.8	
	LCB 00	0.01	0.02	0.04	0.04	0.04	0.05	
D:	LCB 05	0.25	0.26	0.26	0.25	0.28	0.23	
Direction of flow A to B	LCB 10	0.49	0.50	0.51	0.51	0.48	0.47	
Atob	LCB 20	1.44	1.62	1.52	1.44	1.5	1.5	
	LCB 30	_	_	_	_	_	_	
	LCB 40	2.48	2.90	2.70	2.86	3.05	2.8	
	LCA 00	0.04	0.05	0.1	0.1	0.1	0.14	
	LCA 05	0.69	0.78	0.72	0.7	0.84	0.68	
	LCA 10	1.38	1.53	1.42	1.43	1.47	1.37	
Cracking pressure	LCA 20	4.05	4.91	4.25	4.06	4.57	4.33	
bar	LCA 30	_	_		_	_	_	
	LCA 40	6.96	8.74	7.6	8.05	9.34	8.15	
	LCB 00	0.24	0.25	0.5	0.5	0.5	0.8	
	LCB 05	3.69	3.4	3.64	3.64	3.95	3.27	
Direction of flow	LCB 10	7.43	6.69	7.24	7.37	6.88	6.62	
B to A	LCB 20	21.3	21.5	21.6	20.9	21.4	20.9	
	LCB 30	_	_	_	_	_	_	
	LCB 40	36.6	38.3	38.6	41.5	43.6	39.4	

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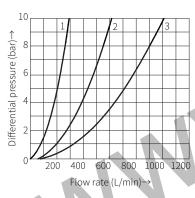


1 Size 16 2 Size 25 3 Size 32

5 Size 50 6 Size 63

4 Size 40

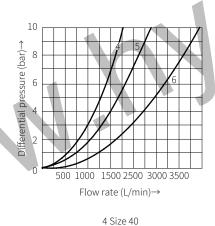
With damping nose



1 Size 16

2 Size 25

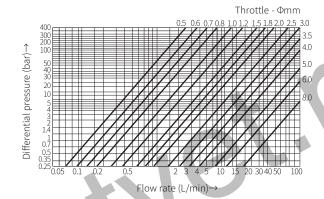
3 Size 32



5 Size 50

6 Size 63

Characteristic curve for throttle selection



	Thread	Throttle- Фmm
١	ZM6	0.5 to 3.0
V	ZM8	0.5 to 4.0
	R3/8	0.8 to 6.0
	R1/2	1.0 to 8.0

Ordering code for throttle

Nominal size		Thread				
NOMINAL SIZE	Throttle	Фтт	ZM6	ZM8	R3/8	R3/8
		0.5	ZM6×1-Φ0.5	ZM8×1-Φ0.5	_	_
		0.6	ZM6×1-Φ0.6	ZM8×1-Φ0.6	_	_
		0.7	ZM6×1-Φ0.7	ZM8×1-Φ0.7	_	_
16		0.8	ZM6×1-Φ0.8	ZM8×1-Φ0.8	R3/8-Ф0.8	_
25		1	ZM6×1-Φ1.0	ZM8×1-Φ1.0	R3/8-Φ1.0	R1/2-Φ1.0
32		1.2	ZM6×1-Φ1.2	ZM8×1-Φ1.2	R3/8-Φ1.2	R1/2-Ф1.2
40		1.5	ZM6×1-Φ1.5	ZM8×1-Φ1.5	R3/8-Φ1.5	R1/2-Ф1.5
50		1.8	ZM6×1-Φ1.8	ZM8×1-Φ1.8	R3/8-Ф1.8	R1/2-Ф1.8
63		2	ZM6×1-Φ2.0	ZM8×1-Φ2.0	R3/8-Ф2.0	R1/2-Ф2.0
		2.5	ZM6×1-Φ2.5	ZM8×1-Φ2.5	R3/8-Ф2.5	R1/2-Ф2.5
		3	ZM6×1-Φ3.0	ZM8×1-Φ3.0	R3/8-Ф3.0	R1/2-Ф3.0
		3.5	_	ZM8×1-Φ3.5	R3/8-Ф3.5	R1/2-Ф3.5
		4	_	ZM8×1-Φ4.0	R3/8-Ф4.0	R1/2-Ф4.0
		5	_	_	R3/8-Ф5.0	R1/2-Ф5.0
		6	_		R3/8-Ф6.0	R1/2-Ф6.0
<u> </u>		8	_			R1/2-Ф8.0

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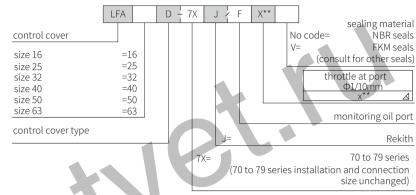
Valve fixing screw

Infernal hexagon according to GB/T70.1-10.9 grade (included in the supply list)

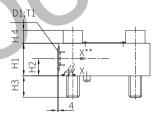
Size	Control cover type	Dimension	Quantity	Tightening torque M _A (Nm)	Size	Control cover type	Dimension	Quantity	Tightening torqueM _A (Nm)
	D	M8×40				D	M20×70		
	G	M8×40				G	M20×70		
	GW A,GW B	M8×45				GW A,GW B	M20×70		
	H1,H2	M8×40				H1,H2	M20×110		
16			4	34.3	40	R,RF	M20×70	4	373
	KW A,KW B	M8×45				KW A,KW B	M20×70		
	W E A,WEB	M8×45				W E A,WEB	M20×70		
	W ECA	M8×40				W ECA	M20×70		
	WEMA,WEMB	M8×70				WEMA,WEMB	M20×70		
	D	M12×50				D	M20×80		
	G	M12×50				G	M20×80	4	373
	GW A,GW B	M12×50				GW A,GW B	M20×80		
	H1,H2	M12×50				H2	M20×120		
25	R,RF	M12×50	4	95	50	R,RF	M20×80		
	KW A,KW B	M12×50				KW A,KW B	M20×80		
	WEA,WEB	M12×50				WEA,W EB	M20×80		
	W ECA	M12×50				W EC A	M20×80		
	WEMA,WEMB	M12×50				WEMA,WEMB	M20×80		
32	D,G,R,RF GW A,GW B, KW A,KW B, W EA,W EB, W ECA, W EMA,W EMB	M16×60	4	196	63	D,G,R,RF GW A,GW B, KW A,KW B, W EA,W EB, W ECA, W EMA,W EMB	M30×100	4	1315
	H1,H2	M16×80				H2	M30×150		

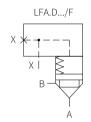
Control cover "D" with remote control

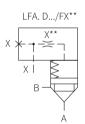
Size 16 to 63

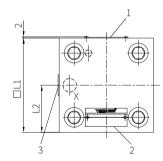


If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm Standard throttle see page 07/24







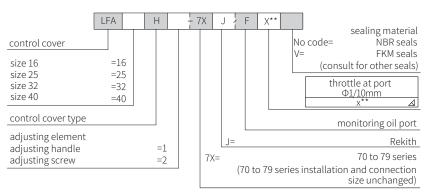


Size	16	25	32	40	50	63
D1	G1/8	G1/4	G1/4	G1/2	G1/2	G3/4
X**1)	ZM6	ZM6	ZM6	ZM8	ZM8	R3/8
H1	27	30	35	60	68	82
H2	12	16	16	30	32	40
НЗ	15	20	25	32	34	50
H4	6	12	16	_	_	_
L1	65	85	100	125	140	180
L2	32.5	42.5	50	72	80	90
T1	8	12	12	14	14	16
Weight kg	0.9	1.7	2.7	6.6	9.4	18.7

- 1) Ordering code of throttle see page 07/24
- 2 Name plate for size 40/50/63
- 3 Optional port X used as threaded connection port

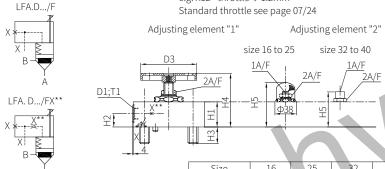
1 Name plate for size 16/25/32

Size 16 to 40



If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm

¹⁾ Ordering code of throttle see page 07/24



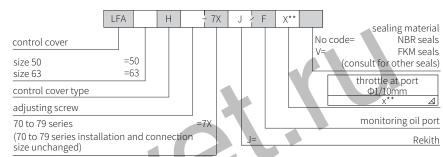
1	Size	10	25	32	40
А	D1	G1/8	G1/4	G1/4	G1/2
1	X**1)	ZM6	ZM6	ZM6	ZM8
7	D3	60	80	80	100
	H1	35	40	75	95
	H2	12	16	16	30
	H3	15	24	28	32
	H4max	90	95	120	160
	H5max	76	80	100	146
14 /1×40 0 0 0 0 1	□L1	65	85	100	125
	L2	32.5	42.5	50	72
	T1	8	12	12	14
	1A/F ²⁾	6	6	10	14
3 2	2A/F	21	22	27	46
	Weight kg	1.3	2.3	5.5	11.2

2) Internal hexagon

- 1 Name plate for size 16/25/32
- 2 Name plate for size 40
- 3 Optional port X used as threaded connection port

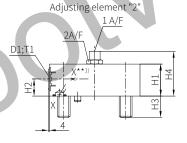
Control cover "H" with stroke limitation and remote control

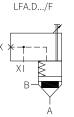
Size 50 to 63

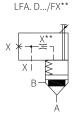


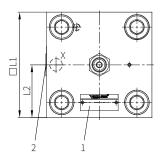
If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm

Standard throttle see page 07/24









Size	50	63
D1	G1/2	G3/4
X**1)	ZM8	R3/8
H1	110	125
H2	32	40
НЗ	34	50
H4max	156	175
□L1	140	180
L2	80	90
T1	14	16
1A/F ²⁾	17	24
2A/F	55	65
Weight kg	15.8	30.2

1) Ordering code of throttle see page 07/24

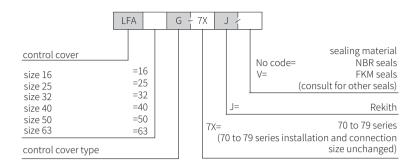
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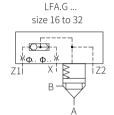
2) Internal hexagon

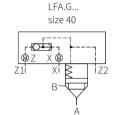
- 1 Name plate
- 2 Optional port X used as threaded connection port

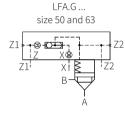
Control cover "G" with integrated shuttle valve

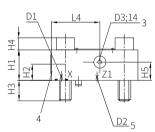
Size 16 to 63











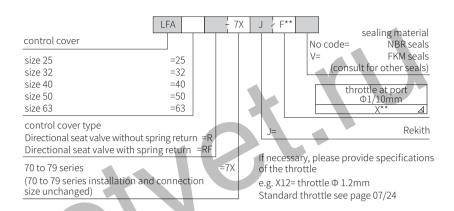
2	<u>L5</u>	L3	D3;1	4 1
	12	(†×	Z1	D2 6
,	, ,		() zż ⁱ	

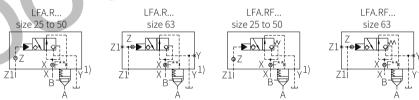
						- 4
Size	16	25	32	40	50	63
D1 ²⁾	Ф1.2	Ф1.5	Ф2.0	M6	M8×1	M8×1
D2 ²⁾	Ф1.2	Ф1.5	Ф2.0	M6	$M8 \times 1$	M8×1
D3	_	_	+		G1/2	G1/2
H1	35	30	35	60	68	82
H2	17	17	21.5	30	32	42
НЗ	15	24	28	32	34	50
H4	-	12	16		_	-
H5	± 0	7-1	_	-	32	40
L1	65	85	100	125	140	180
L2	36.5	45.5	50	62.5	70	90
L3	-1		_	_	72	81
L4		_	_	_	72	90
L5	4.5	4	1	_	6	4

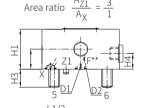
- 1 Name plate for size 16/25/32
- 2 Name plate for size 40/50/63
- 3 Optional ports Z1 and Z2 used as threaded connection ports for size 25/32/50/63
- 4 Shuttle valve
- 5 D2 for size 16 to 40

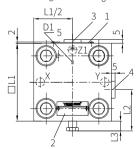
Control cover "R" and "RF" with integrated directional seat valve

Size 25 to 63







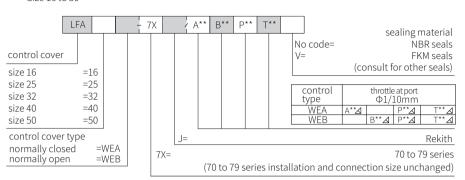


Size	Type	25	32	40	50	63
F**2)		ZM6	ZM6	ZM8	ZM8	ZM8
H1		40	50	60	68	82
H2		20	26	30	34	40
НЗ		24	28	32	34	50
H4		15.5	26	30	34	40
□L1		85	100	125	140	180
L2		50	50	65.7	70	78.5
L3	R	3	3	4	4	-
LS	RF	18	18	25	25	16
Weight	kg	2.1	3.6	6.7	9.5	18.3

- 1) Maximum working pressure at port Y 5 bar
- 2) Ordering code of throttle see page 07/24
- 1 Name plate for size 16/25/32
- 2 Name plate for size 40/50/63
- 3 Optional port Z1 used as threaded connection port for size 25 to 63
- 4 Optional port Z1 used as threaded connection port for size 25 to 63
- 5 D1 for size 25 to 50
- 6 D1 for size 63

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Size 16 to 50



Control cover "WEA" and "WEB" for set-up of a directional spool or diretional seat valve

■ If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm Standard throttle see page 07/24

I FA.WFA...

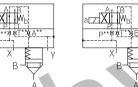
LFA.WEA... size 16 to 32 Direction spool valve model: 4WE6D

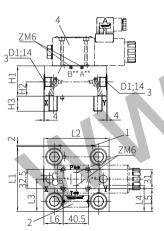


LFA.WEB... size 16 to 32 Direction spool valve model: 4WE6D



LFA.WEB...
0 size 40 to 50
pool valve
E6D Direction spool valve
model: 4WE6D

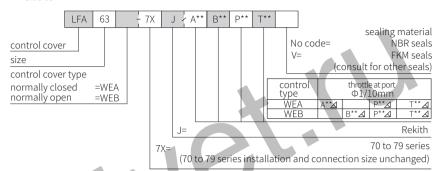




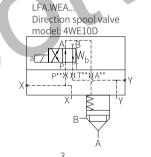
	Size	16	25	32	40	50
	D1	_	_	_	G1/2	G1/2
	H1	40	40	50	60	68
	H2	\ —	_		30	32
	H3	15	24	28	32	34
ì	L1	65	85	100	125	140
1	L2	80	85	100	125	140
	L3		_	_	72	80
	L4	_	_	_	53	60
	L5	17	27	34.5	47	54.5
	L6	7	23.5	31	43.5	51
	A**B** T**P**1)	ZM6	ZM6	ZM6	ZM6	ZM6
	Weight kg	1.5	2.1	3.6	6.6	9.3

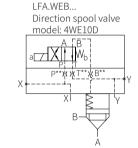
- 1) Ordering code of throttle see page 07/24
- 1 Name plate for size 16/25/32
- 2 Nameplate for size 40/50
- 3 Optional ports X and Y used as threaded connection ports for size 40/50
- 4 Direction spool valve 4WE6D and screw
- M5x50-10.9 GB T70.1 must be ordered separately

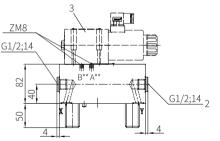
Size 63

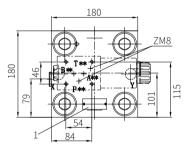


△ If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm
Standard throttle see page 07/24











- 1 Name plate
- 2 Optional ports X and Y used as threaded connection ports
- 3 Direction spool valve 4WE10D and screw M6x40-10.9 GB T70.1 must be ordered separately Weight (kg): 18.6

1) Ordering code of throttle see page 07/24

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Control cover "WEMA" and "WEMB" for set-up of a directional spool or diretional seat valve

△ If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm
Standard throttle see page 07/24

(70 to 79 series installation and connection size unchanged)

LFA.WEMA... size 16 to 32 Direction spool valve model: 4WE6D

normally closed =WEMA

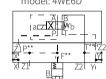
=WEMB

G1/2;14

normally open







size 40 to 50 Direction spool valve model: 4WE6D	Direction spool valve model: 4WE6D			
acziXIIWb	I A I B I acziXI I w b I I A I I I I I I I			

LFA.WEMB...

50 G1/2

68

32

34

140

140.

60

54.5

51

80

ZM 6

9.3

30

32

125

125

53

47

43.5

72

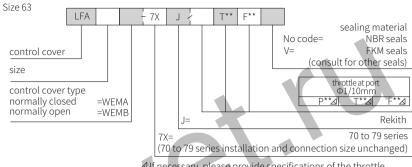
ZM6

6.6

	Size	16	25	32	Ĺ
	D1	_	1		ſ
5 6 4 CATTE	H1	65	40	50	ĺ
5 6 4	H2	_	1	—	Ī
/	H3	15	24	28	ſ
	L1	65	85	100	ſ
B All L	L2	80	85	100	Ī
F** F**	L3	-	_		ſ
7 7 7	L4	17	27	34.5	Г
	L5	7	23.5	31	Ī
Y \D1;14_3	L6		_	_	
1 L2 G1/2·14	P** T** F**1)	ZM 6	ZM 6	ZM 6	
1 <u>L2</u> <u>G1/2;14</u> ₃	F**	2.3	2.1	3.6	

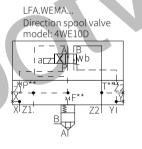
¹⁾Ordering code of throttle see page 07/24

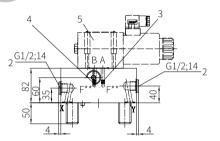
- 1 Name plate for size 16/25/32
- 2 Name plate for size 40/50
- 3 2 Optional ports X and Y used as threaded connection ports for size 40/50
- 4 Plug ZM6 for model: ..WEMB...
- (port B with or without throttle F * *, port A with plug)
- 5 Plug ZM6 for model: ..WEMA... (port A with or without throttle F * *, port B with plug)
- 6 Direction spool valve 4WE6D and screw M5x50-10.9 GB T70.1 must be ordered separately

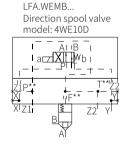


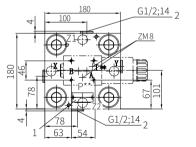
 Δ If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm

Standard throttle see page 07/24









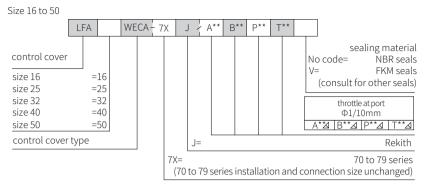
P**,T**,F** ¹⁾	ZM8

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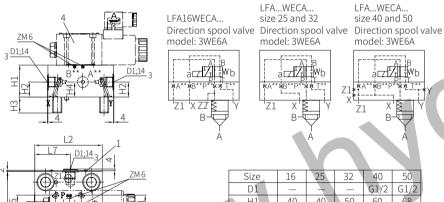
1) Ordering code of throttle see page 07/24

- 1 Name plate
- 2 Optional ports X/Y/Z1/Z2 used as threaded connection ports
- 3 Plug ZM8 for model: ..WEMB... (port B with or without throttle F * *, port A with plug)
- 4 Plug ZM8 for model: ..WEMA... (port A with or without throttle F * *, port B with plug)
- 5 Direction spool valve 4WE10D and screw M6x40-10.9 GB T70.1 must be ordered separately Weight (kg): 18.6

Control cover "WECA" for set-up of a directional spool valve



△If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm Standard throttle see page 07/24



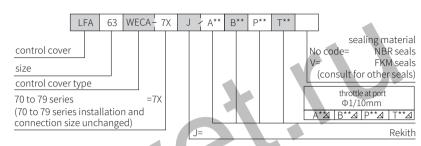
- 2 Name plate for size 40/50
- 3 Optional ports X/Y/Z1 used as threaded connection ports for size 40 and 50
- 4 Direction spool valve 3WE6A and screw M5x50-10.9 GB T70.1 must be ordered separately

	Size	16	25	32	40	50
	D1	_	7	_	G1/2	G1/2
ĺ	H1	40	40	50	60	68
	H2	_			30	32
١	H3	15	24	28	32	34
	H4	_	_		30	32
	L1	65	85	100	125	140
7	L2	80	85	100	125	140
	L3	_	_	_	53	60
	L4	17	27	34.5	47	54.5
	L5	7	23.5	31	43.5	51
	L6	_	_	_	62.5	70
	L7	_	_	_	72	80
	A**B** P**T**1)	ZM 6				
	Weight kg	1.5	2.1	3.6	6.6	9.3

¹⁾ Ordering code of throttle see page 07/24

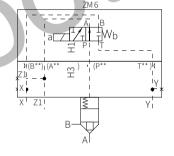
Control cover "WECA" for set-up of a directional spool valve

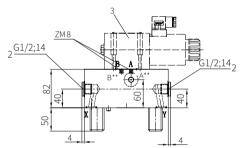
Size 63



△ If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm Standard throttle see page 07/24

LFA63WFCA. Direction spool valve model: 3WE10A



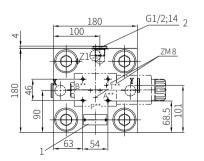


A**B** P**,T**1)	ZM8	

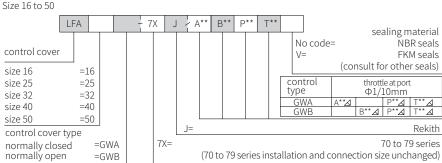
1) Ordering code of throttle see page 07/24

- 1 Name plate
- 2 Optional ports X/Y/Z1/Z2 used as threaded connection ports
- 3 Direction spool valve 3WE10A and screw M6x40-10.9 GB T70.1 must be ordered separately

0859



0858

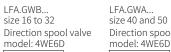


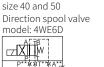
Control cover "GWA" and "GWB" for set-up of a directional spool or directional seat valve

△ If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm Standard throttle see page 07/24

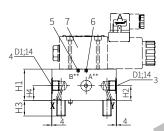
LFA.GWA... size 16 to 32 Direction spool valve model: 4WE6D

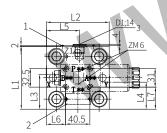






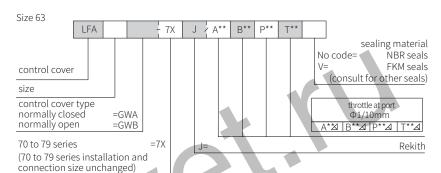






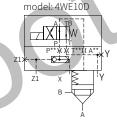
16	25	32	40	50
_	_		G1/2	G1/2
40	40	50	60	68
_		+	30	32
15	24	28	32	34
17	17	21.5	30	32
65	85	100	125	140
80	85	100	125	140
36.5	45.5	50	62.5	72
	_	_	53	60
_	_	_	62.5	70
7	23.5	31	43.5	51
17	27	34.5	47	54.5
ZM 6	ZM 6	ZM 6	ZM 6	ZM 6
1.5	2.1	3.6	6.6	9.3
		40 40 40 15 24 17 17 65 85 80 85 36.5 45.5 7 23.5 17 27 ZM 6 ZM 6		- - G1/2 40 40 50 60 - - - 30 15 24 28 32 17 17 21.5 30 65 85 100 125 80 85 100 125 36.5 45.5 50 62.5 - - 53 - - 62.5 7 23.5 31 43.5 17 27 34.5 47 ZM 6 ZM 6 ZM 6 ZM 6

- 1 Name plate for size 16/25/32
- 2 Name plate for size 40/50
- 3 Optional ports Y and Z1 used as threaded connection ports for size 40/50
- 4 Shuttle valve
- 5 Plug ZM6 for model: ..GWA...(port B with plug only)
- 6 Plug ZM6 for model: ..GWB...(port A with plug only)
- 7 Direction spool valve 4WE6D and screw M5x50-10.9 GB T70.1 must be ordered separately



△ If necessary, please provide specifications of the throttle

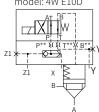
- e.g. X12= throttle Φ 1.2mm
- Standard throttle see page 07/24

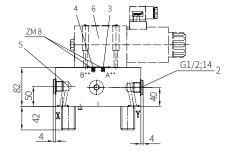


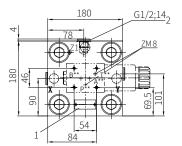
LFA.63GWA..

Direction spool valve

LFA.63GWB.. Direction slide valve model: 4W E10D





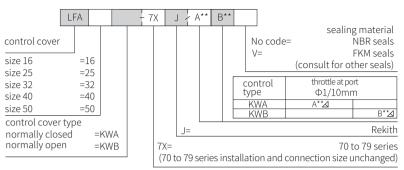


- 1 Name plate
- 2 Optional ports Y and Z1 used as threaded connection ports for size 40/50
- 3 Plug ZM8 for model: ..GWB...(port A with plug only)
- 4 Plug ZM8 for model: ..GWA...(port B with plug only)
- 5 Shuttle valve
- 6 Direction spool valve 4WE10D and screw M5x50-10.9 GB T70.1 must be ordered separately Weight (kg): 18.6



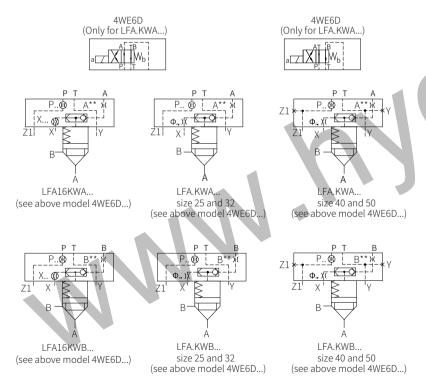
¹⁾Ordering code of throttle see page 07/24

Size 16 to 50

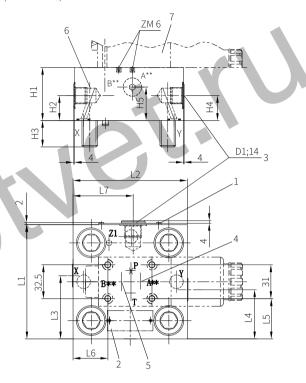


Control cover "KWA" and "KWB" for set-up of a directional spool or directional seat valve

△ If necessary, please provide specifications of the throttle e.g. X12= throttle Φ 1.2mm
Standard throttle see page 07/24



Model ..KWA/..KWB..(size 16 to 50)



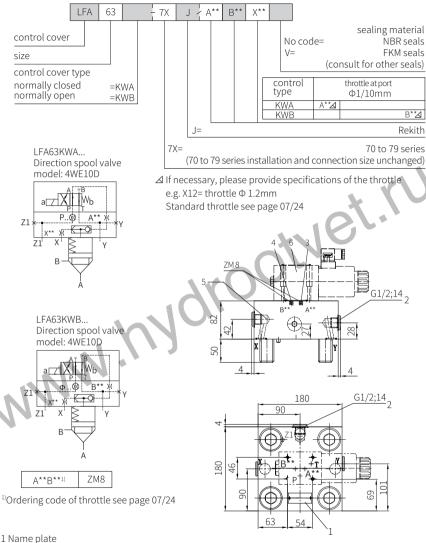
Size	16	25	32	40	50
D1	_	_	_	G1/2	G1/2
H1	40	40	50	60	68
H2	17	17	21.5	30	32
НЗ	15	24	28	32	34
H4	_	_	_	30	32
H5	_	_	_	30	50
L1	65	85	100	125	140
L2	80	85	100	125	140
L3	36.5	45.5	50	62.5	72
L4	_	_	_	53	60
L5	17	27	34.5	47	54.5
L6	7	23.5	31	43.5	51
L7	_	_	_	62.5	70
A**B**1)	ZM 6				
Weight kg	1.5	2.1	3.6	6.6	9.3

¹⁾Ordering code of throttle see page 07/24

- 1 Name plate for size 16/25/32
- 2 Name plate for size 40/50
- 3 optional ports Y and Z1 used as threaded connection ports for size 40/50
- 4 Plug ZM6 for model ..KWB...(port A with plug only)
- 5 Plug ZM6 for model ..KWA...(port B with plug only)
 - ntag zmo tot modet ...twv....(pot
- 6 Shuttle valve
- 7 Direction spool valve 4WE6D and screw M5x50-10.9 GB T70.1 must be ordered separately

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Size 63



- 2 Optional ports Y and Z1 used as threaded connection ports for size 40/50
- 3 Plug for model ..KWB...
- 4 Plug for model ..KWA...
- 5 Shuttle valve
- 6 Direction spool valve 4WE10D and screw M6x40-10.9 GB T70.1 must be ordered separately Weight (kg): 18.6