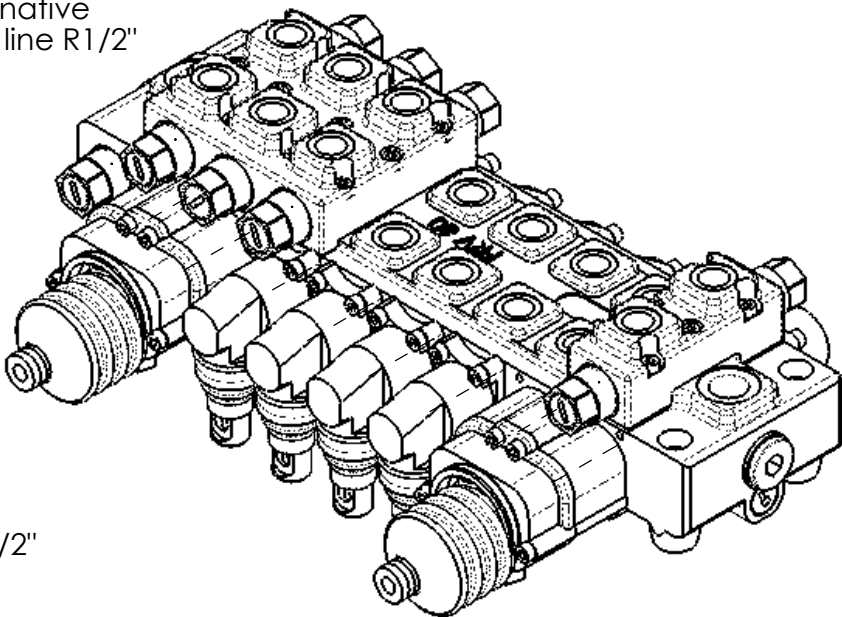
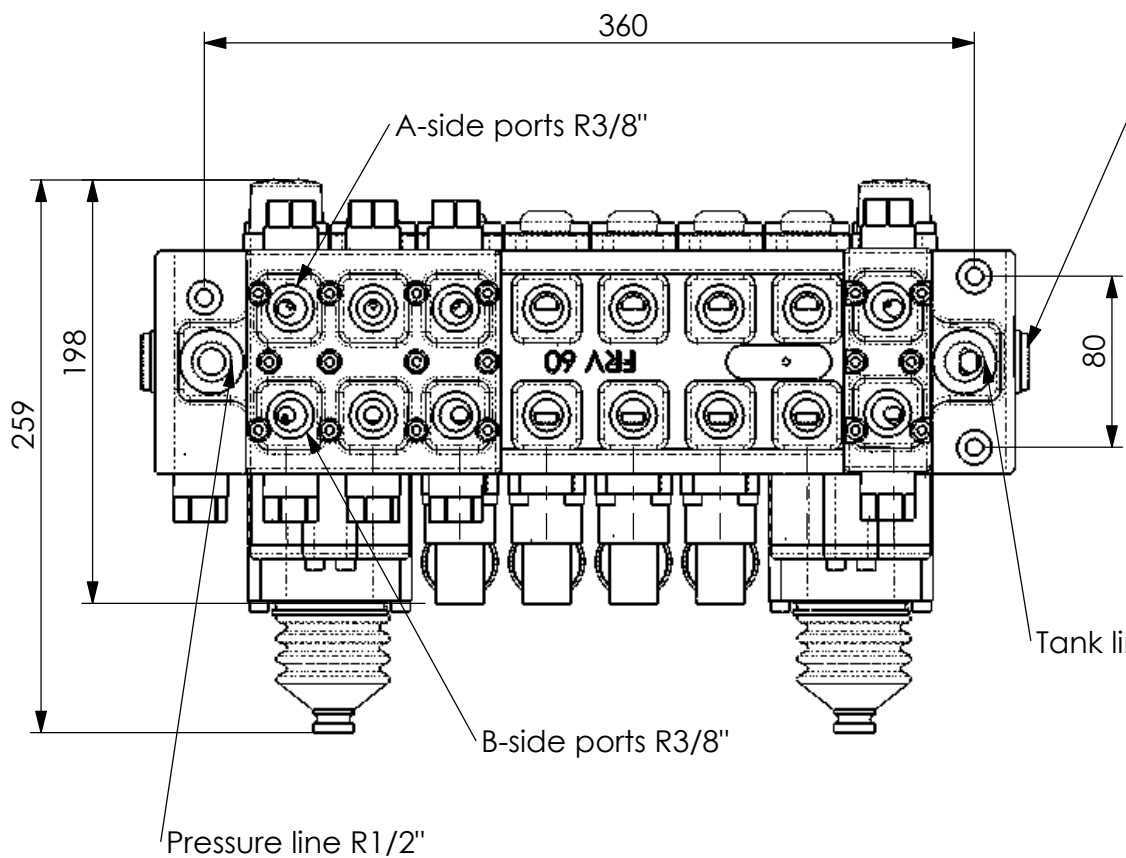
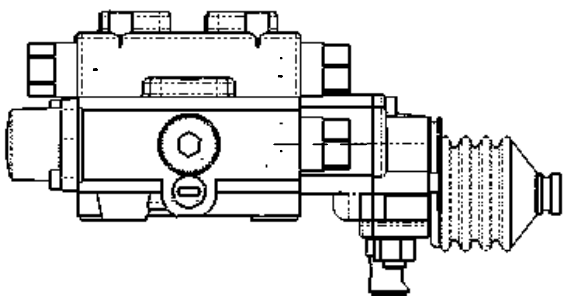
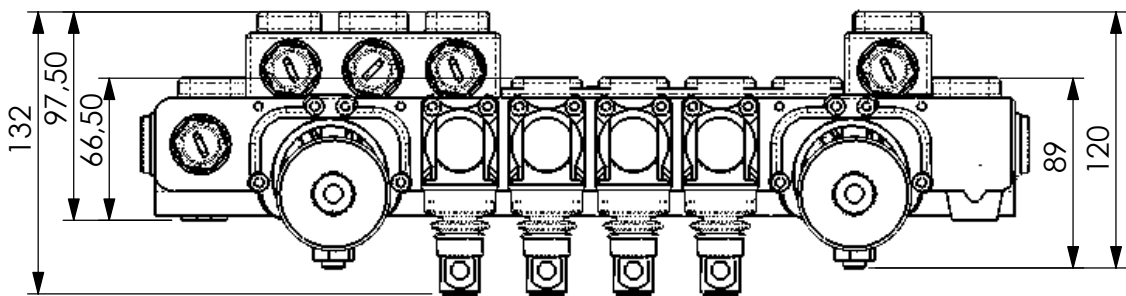


HYDRAULIC VALVES FRV60

MECHANICAL COTROLS

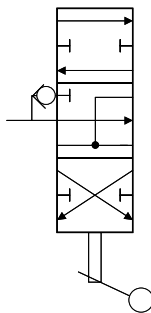
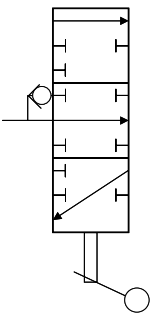
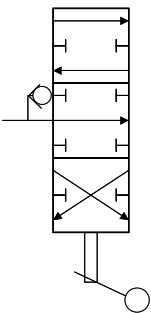


FRV 60	
Maximum flow	60 l/min
Max. operation pressure	280 bar
Max. tankline pressure	10 bar

MODEL	Number of working spool								
FRV 60 BODY MODEL A	1	2	3	4	5	6	7	8	
High section (shock valve possible)	X	X	X					X	
Low section				X	X	X	X		
FRV 60 BODY MODEL B	1	2	3	4	5	6	7	8	
High section (shock valve possible)	X								
Low section		X	X	X	X	X	X	X	
FRV 60 BODY MODEL C	1	2	3	4	5	6	7	8	
High section (shock valve possible)									
Low section	X	X	X	X	X	X	X	X	
FRV 60 BODY MODEL F	1	2	3	4	5	6	7	8	
High section (shock valve possible)	X	X	X			X			
Low section				X	X		X	X	

Spool type 1 Spool type 2 Spool type 3

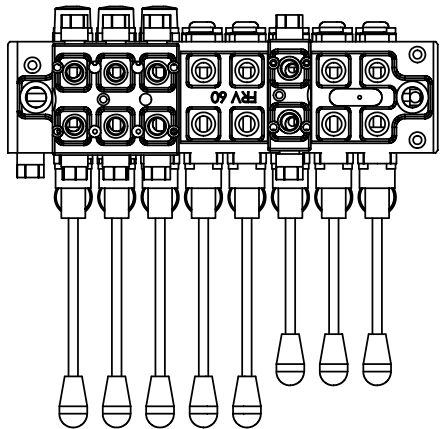
TYPE OF SPOOLS	
type 1	double-acting spool
type 2	single-acting spool
type 3	motor spool



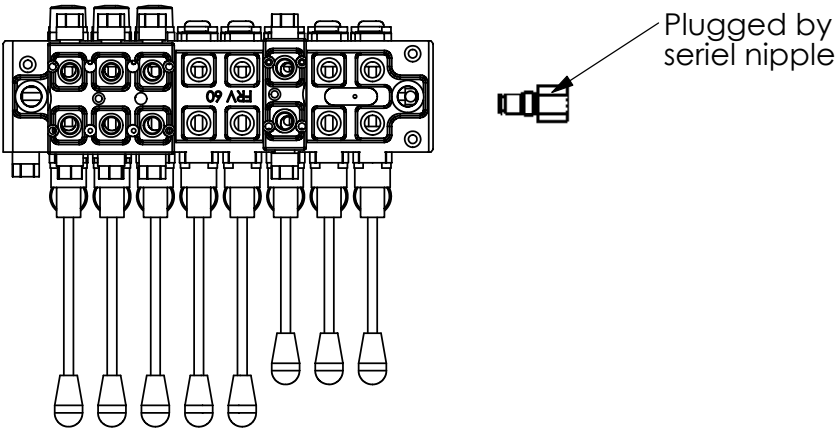
Type of spool interlock								
Interlock for ports	C1	C2	C3	C4	C5	C6	C7	C8
A		X		X		X	X	X
CENTER						X	X	
B		X	X			X	X	X
FLOAT					X		X	X

Different hydraulic system connections

Around pumping hydraulic system



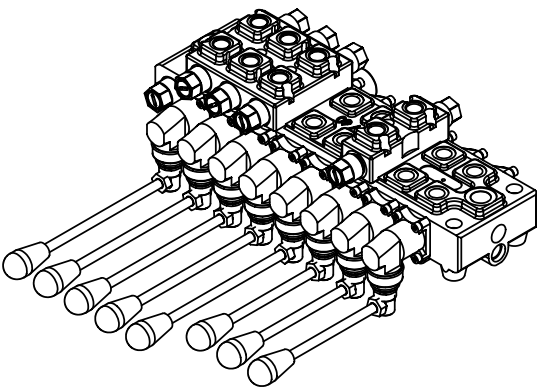
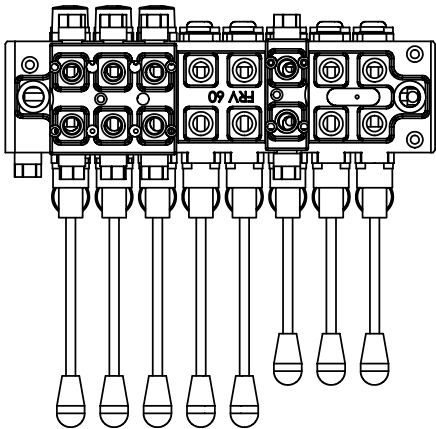
Constant pressure hydraulic system



Name	Item
Serial nipple FRV 60	100723

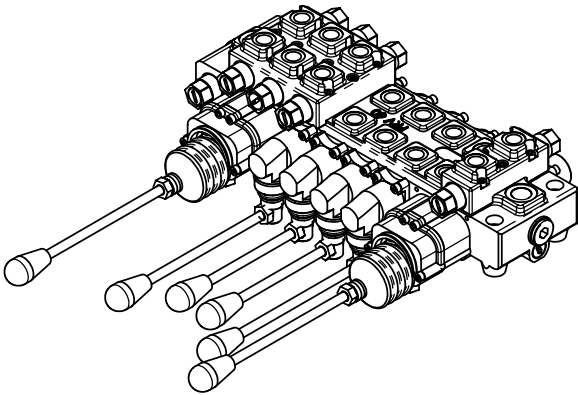
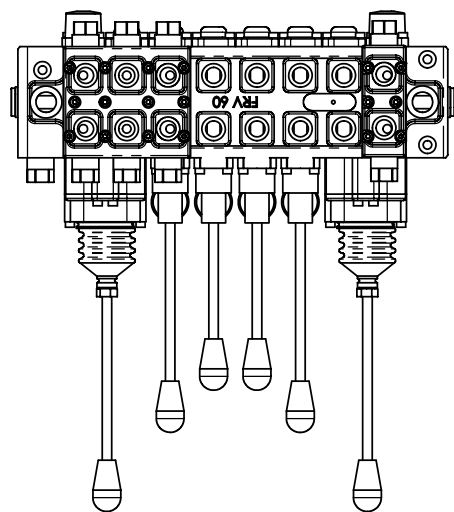
Standard mechanical control valves for cranes

Multilever control



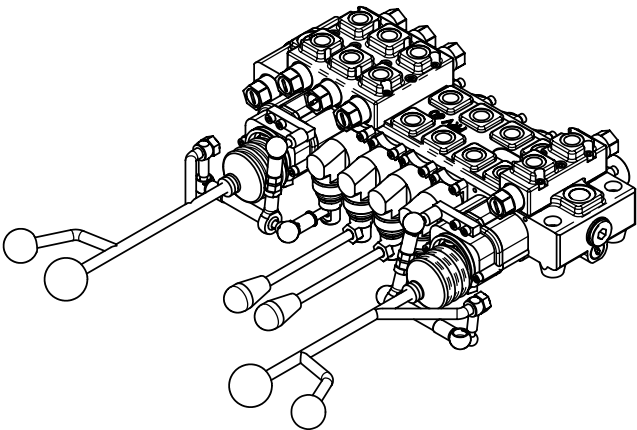
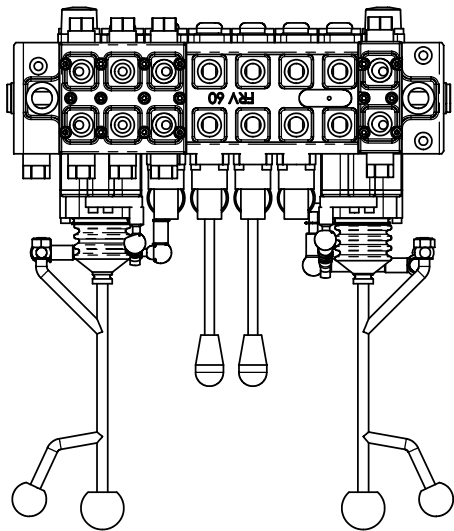
Multilever control			Sections							
Type	Body model	Item	Slewing (F)	Main boom (F)	Second boom (F)	Rotator	Grapple	Extension boom	Leg	Leg
FRV 60/6	FRV 60 F	100794	H	H	H	L	L	H	P	P
FRV 60/7	FRV 60 F	100796	H	H	H	L	L	P	L	L
FRV 60/8	FRV 60 F	100745	H	H	H	L	L	H	L	L
H=High section, shock valves if needed (F)=Float position if needed			L=Low section, no shock valves P=Plugged spool							

2-Lever control



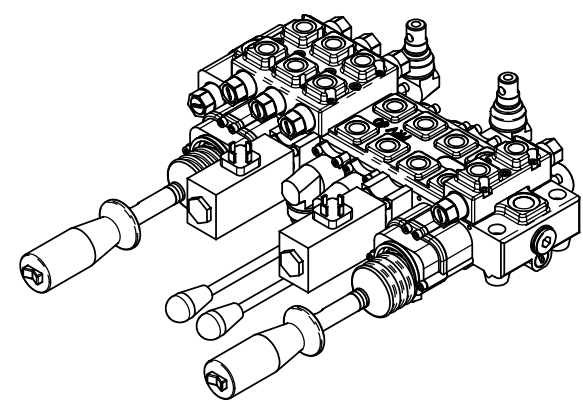
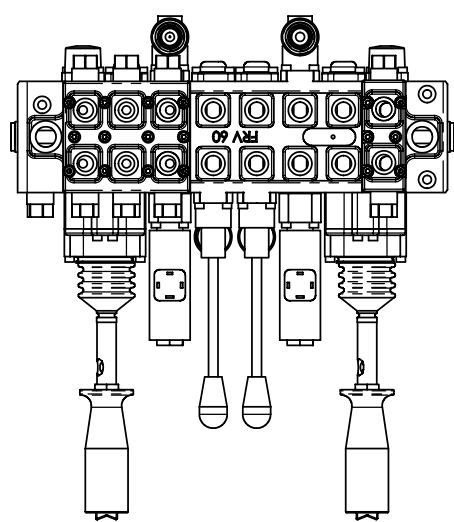
2-Lever control			Sections							
			Slewing (F)	Second boom (F)	Extension boom	Leg	Leg	Grapple	Rotator	Main boom (F)
Type	Body model	Item								
FRV 60/6	FRV 60 A	100797	H	H	H	P	P	L	L	H
FRV 60/7	FRV 60 A	100798	H	H	P	L	L	L	L	H
FRV 60/8	FRV 60 A	100799	H	H	H	L	L	L	L	H
H=High section, shock valves if needed (F)=Float position if needed			L=Low section, no shock valves P=Plugged spool							

2-Lever (3 koord) control



2-Lever (3 koord) control			Sections							
			Slewing (F)	Second boom (F)	Extension boom	Leg	Leg	Grapple	Rotator	Main boom (F)
Type	Body model	Item								
FRV 60/6	FRV 60 A	100802	H	H	H	P	P	L	L	H
FRV 60/7	FRV 60 A	100803	H	H	P	L	L	L	L	H
FRV 60/8	FRV 60 A	100800	H	H	H	L	L	L	L	H
H=High section, shock valves if needed (F)=Float position if needed			L=Low section, no shock valves P=Plugged spool							

2-Lever on-off control

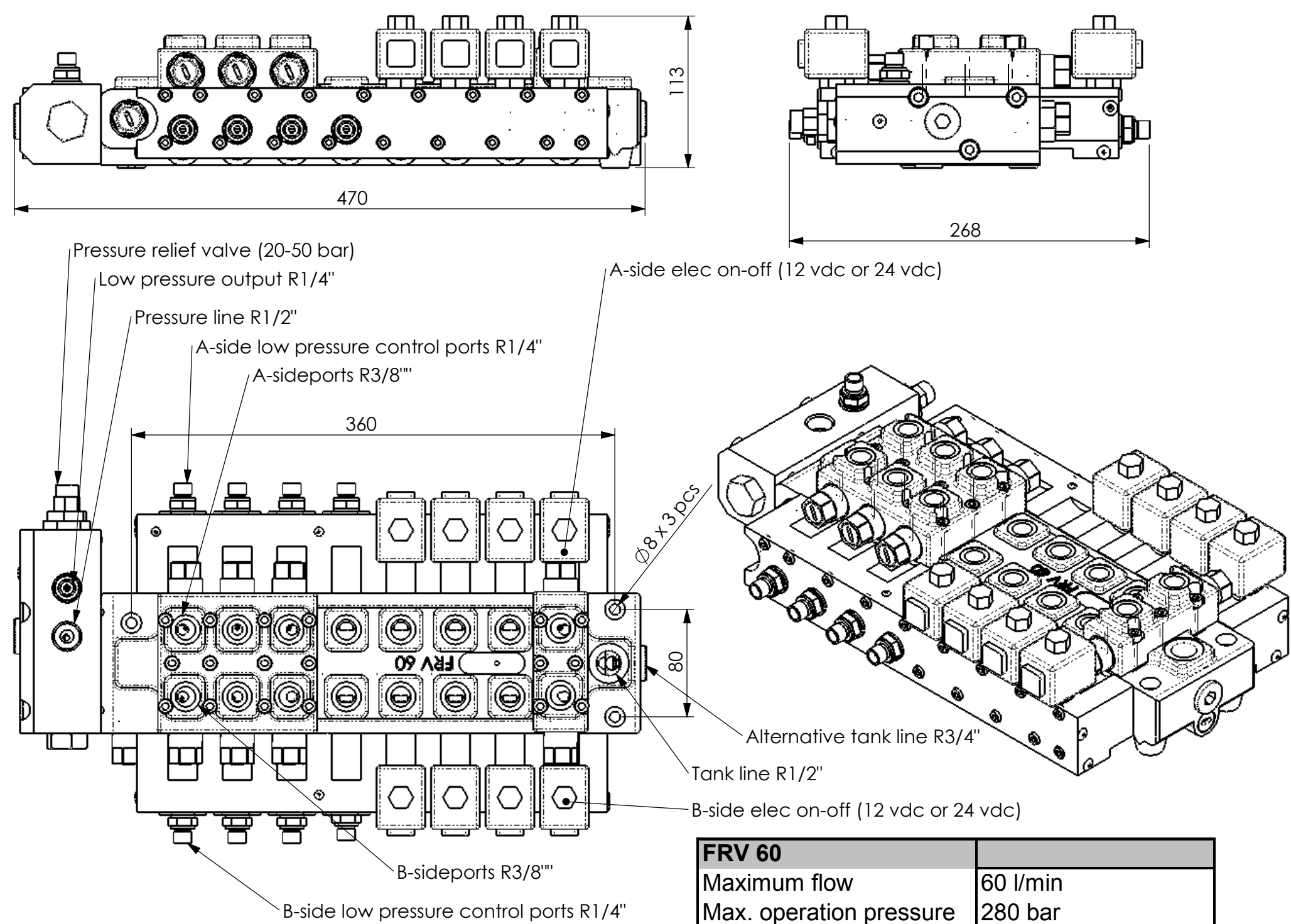


Electricity	
Voltage	12 VDC/24 VDC
Current (keeping)	8 A
Current (pull max)	16 A
Fuse	20 A
Electric cable area min	4 mm2

2-Lever on-off control			Sections							
Type	Body model	Item	Slewing (F)	Second boom (F)	Extension boom	Leg	Leg	Grapple	Rotator	Main boom (F)
FRV 60/6	FRV 60 A	100816	H	H	H	P	P	L	L	H
FRV 60/8	FRV 60 A	100742	H	H	H	L	L	L	L	H
H=High section, shock valves if needed			L=Low section, no shock valves							
(F)=Float position if needed			P=Plugged spool							

HYDRAULIC VALVES FRV 60

LOW PRESSURE HYDRAULIC CONTROL VALVE FOR CRANES

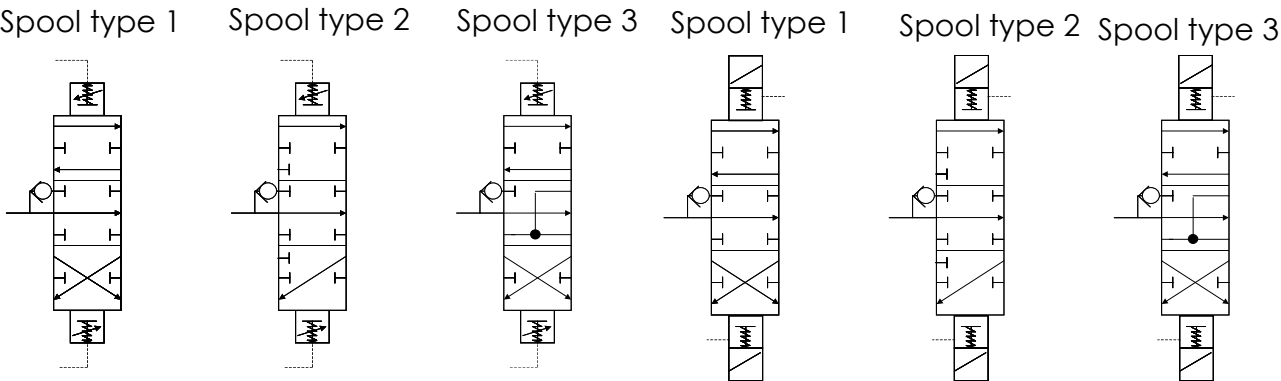


TYPE OF SPOOLS	
type 1	double-acting spool
type 2	single-acting spool
type 3	motor spool

FRV 60	
Maximum flow	60 l/min
Max. operation pressure	280 bar
Max. tankline pressure	10 bar
Pilot operation hoses	R1/4"
Pilot hydraulic pressure	20-45 bar
LS-connection	not possible

LOW PRESSURE HYDRAULIC CONTROLS

ELECTRICAL ON-OFF CONTROLS



CRANE VALVE SET		Number of controls		Number of other items	
Type	item	low pres	elec on-off	Joystics	elec cables
FRV 60/8	100965	4	4	2	4

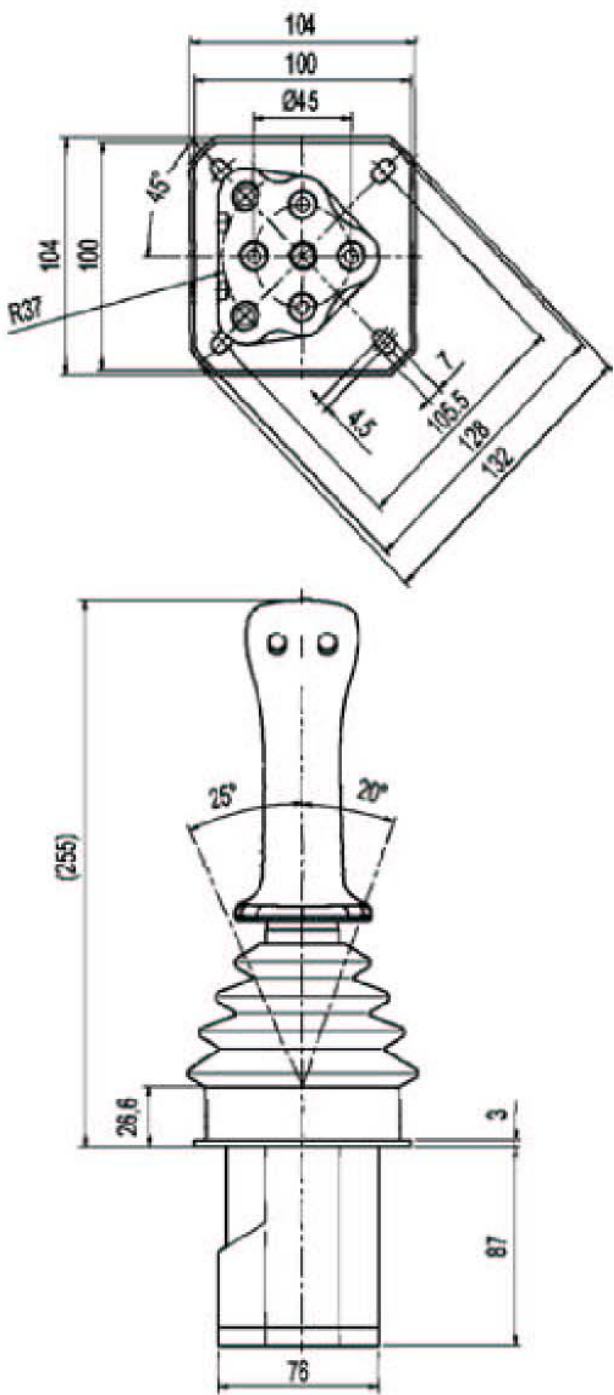
Low pressure hoses	Different lenght alternatives		
2 x 6 pcs	1,7 m	2,5 m	3,5 m

Low pressure hydraulic joystick

Joystick



Dimensions



4 buttons

