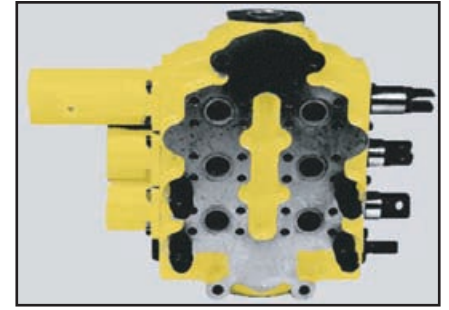


DIRECTIONAL CONTROL VALVES HAMWORTHY SERIES



1106 4 spools



1013 3 spools

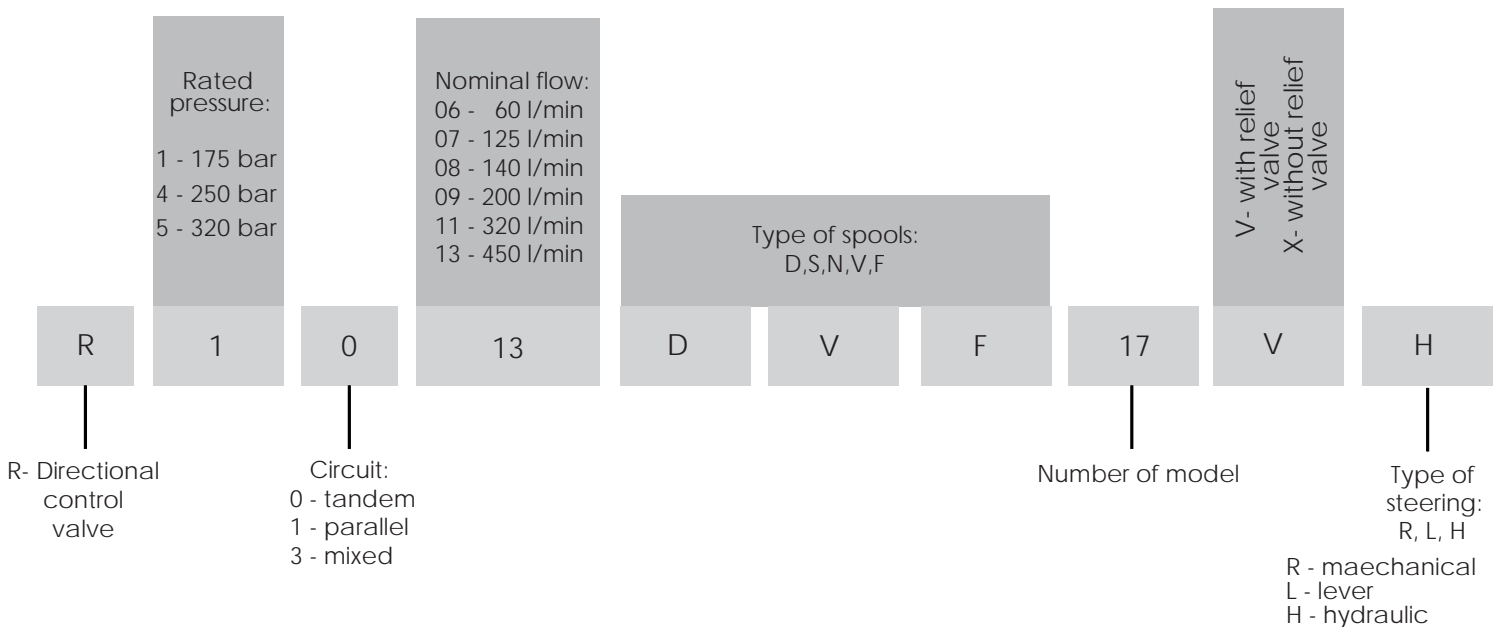
324

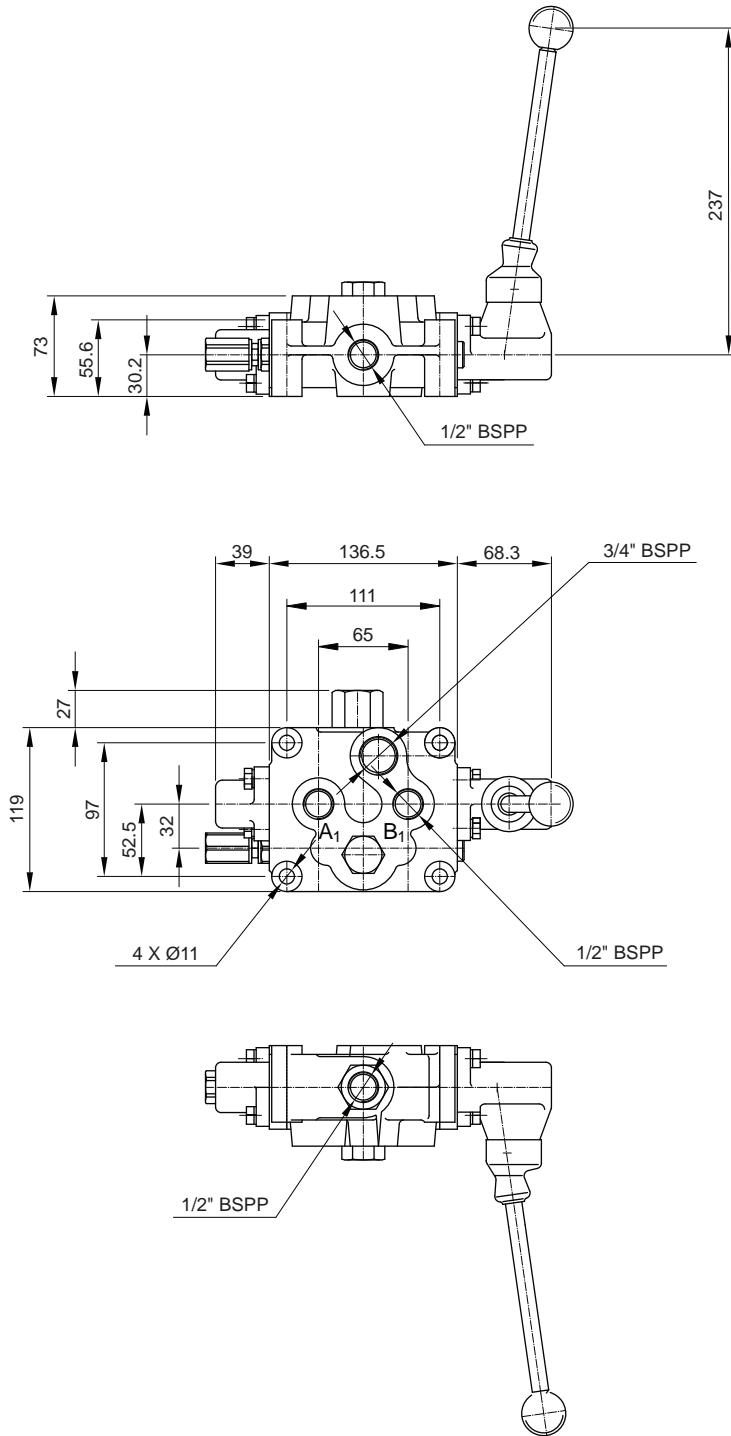
	Tandem circuit					Parallel circuit			Mixed circuit	
Rated pressure* up to 17,5 MPa	1006	1007	1009	1011	1013	1106	1107	1109	1308	1011
Rated pressure* up to 25 MPa	X	4007	4009	4011	4013	X	4107	4109	4308	5311**
Rated flow [dm ³ /min]	63	125	200	320	320	63	125	200	140	200
Number of spools	1	1,2	1	2,3	2,3	2,3,4	2,3 4,6	2,3	4	4

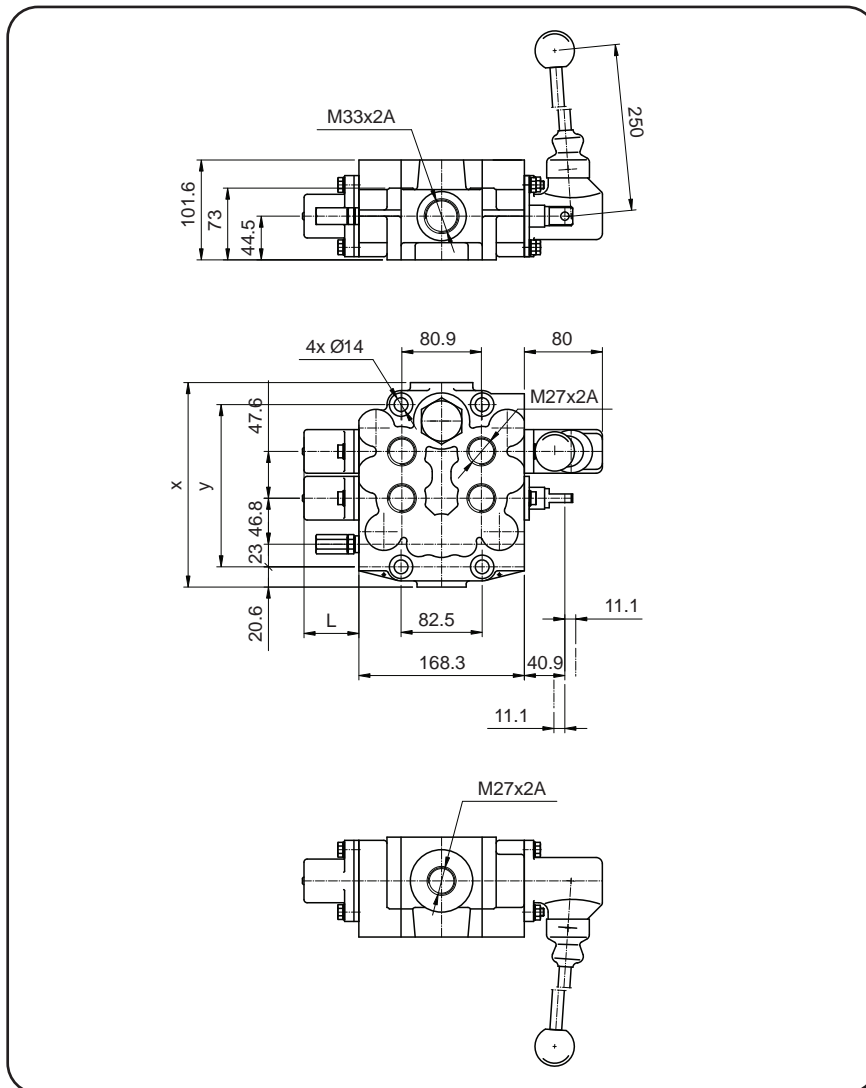
* Nominal flow selection

** Up to 32 MPa

DIRECTIONAL CONTROL VALVES / HOW TO ORDER

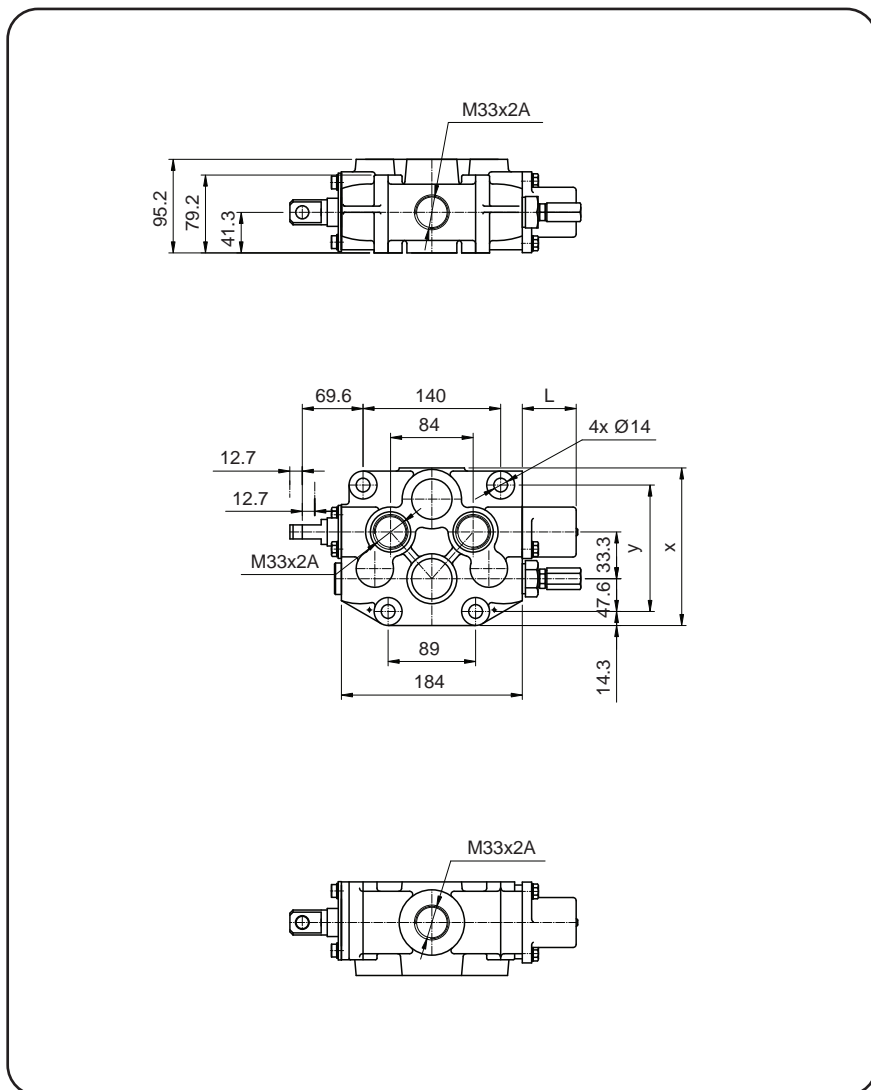






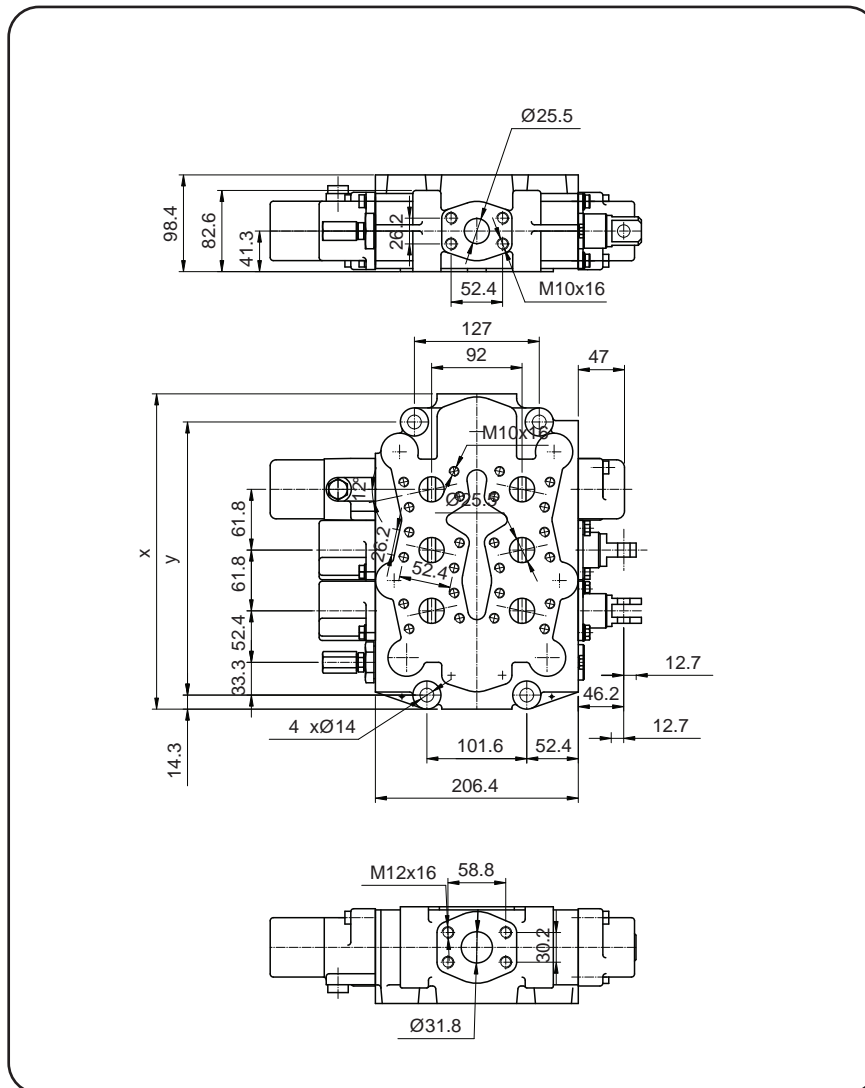
Number of spools		Dim. [mm]		WEIGHT (kg)
		x	y	
R1007	1	160.4	117.4	9.0
R4007	2	208.0	165.0	12.0

Centring and detent systems								Hydraulic operation
Type	A	B	C	D	F	G	J	H
L [mm]	56	152	152	105	152	152	152	90



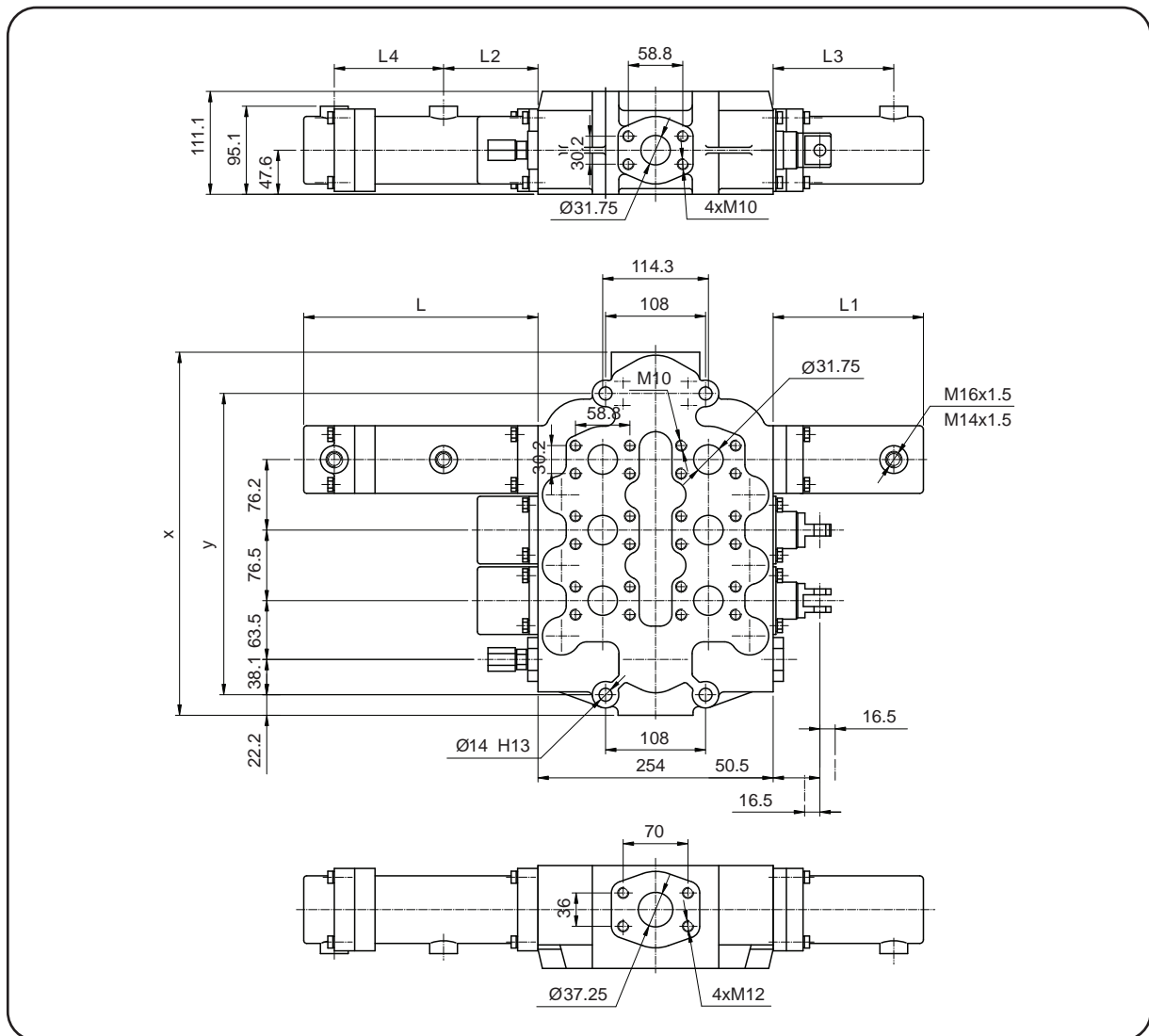
Number of spools	Dim. [mm]		WEIGHT (kg)	
	x	y		
R1009 R4009	1	160.3	128.6	12.0

Centring and detent systems								Hydraulic operation
Type	A	B	C	D	F	G	J	H
L [mm]	45	125	125	125	125	125	125	100



Number of spools	Dim. [mm]		WEIGHT (kg)
	x	y	
R1011	2	258.7	22.0
	3	320.7	30.0

Centring and detent systems										Hydraulic operation
Type	A	B	C	D	F	G	J	BH	GH	H
L [mm]	57.2	150	150	150	150	150	150	145	145	107



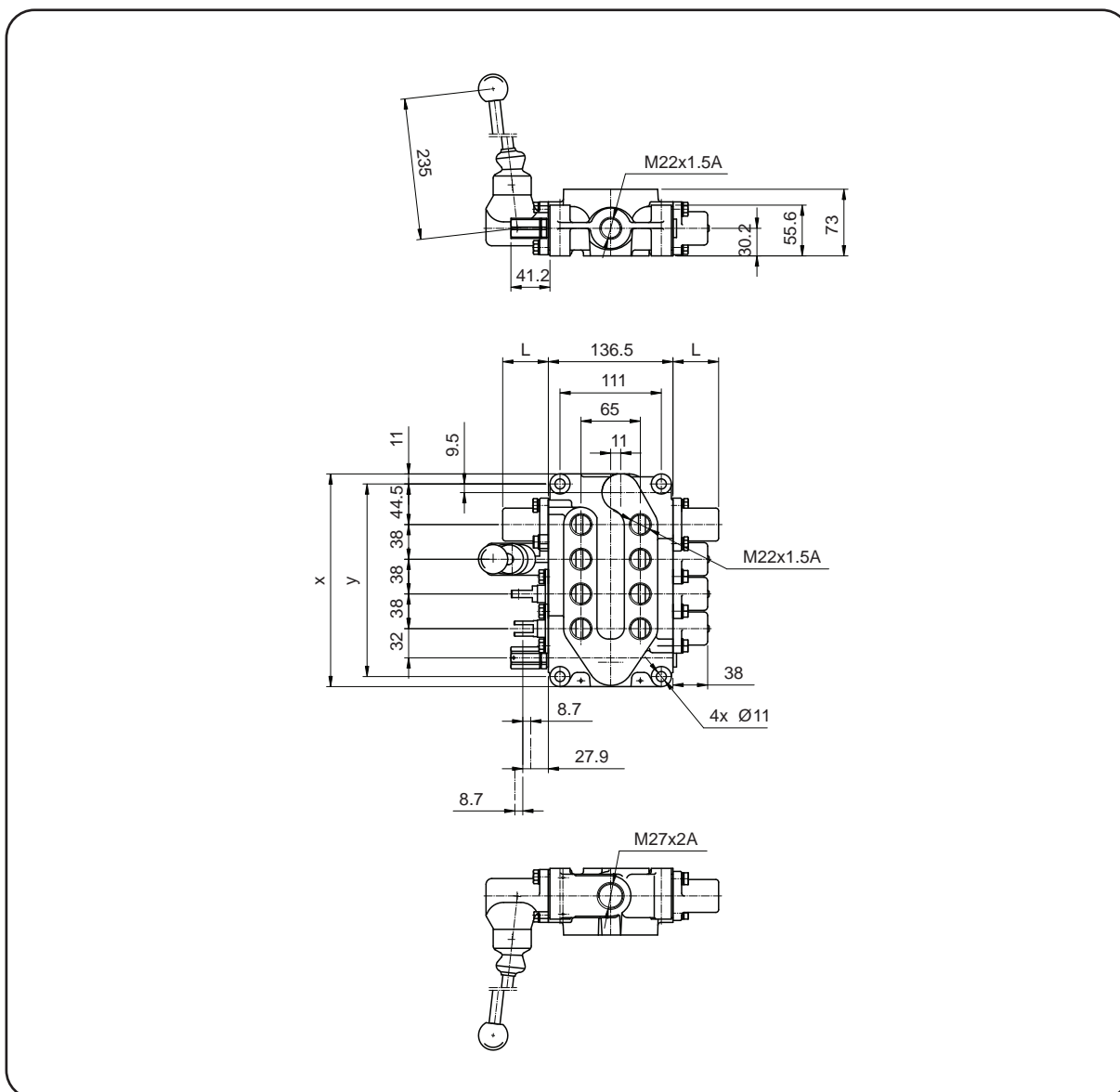
Centring and detent systems

Type	A	B	C	F	G	J	BH	GH
L [mm]	65.0	158	158	158	158	158	160	160

Hydraulic operation

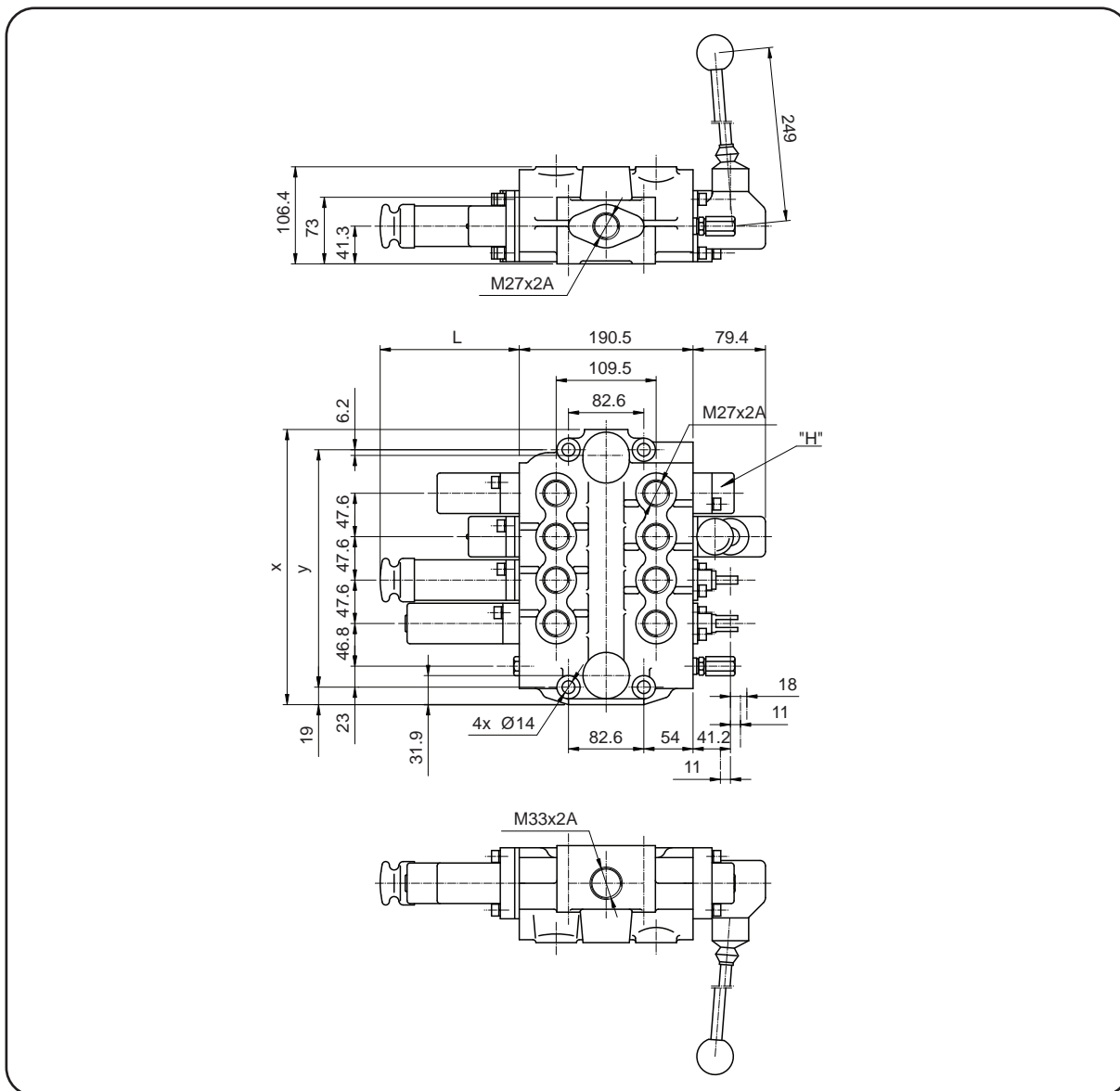
Type of spool	D,S,N,V	F
L [mm]	148	253
L1 [mm]	148	162
L2 [mm]	116	102
L3 [mm]	116	130
L4 [mm]	—	118

Number of spools	Dim. [mm]		WEIGHT (kg)	
	x	y		
R1013	2	315.8	249.2	36.0
	3	392.0	325.4	50.0



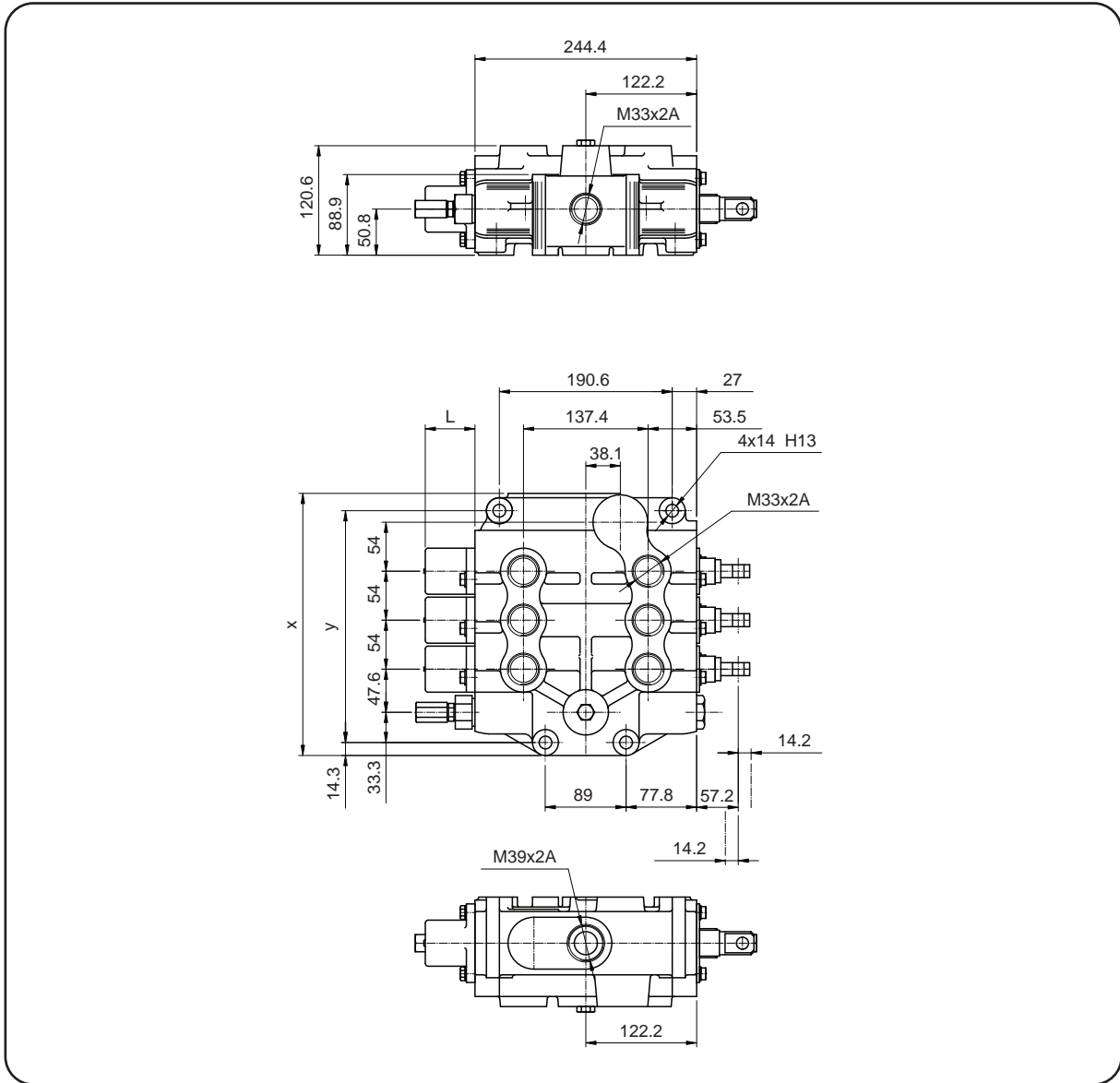
Number of spools	Dim. [mm]		WEIGHT (kg)	
	x	y		
R1106	2	157.2	135.0	8.0
	3	195.2	173.0	10.0
	4	233.2	211.0	12.0

Centring and detent systems				Hydraulic operation
Typ	A	B	C	H
L [mm]	38	88	88	50



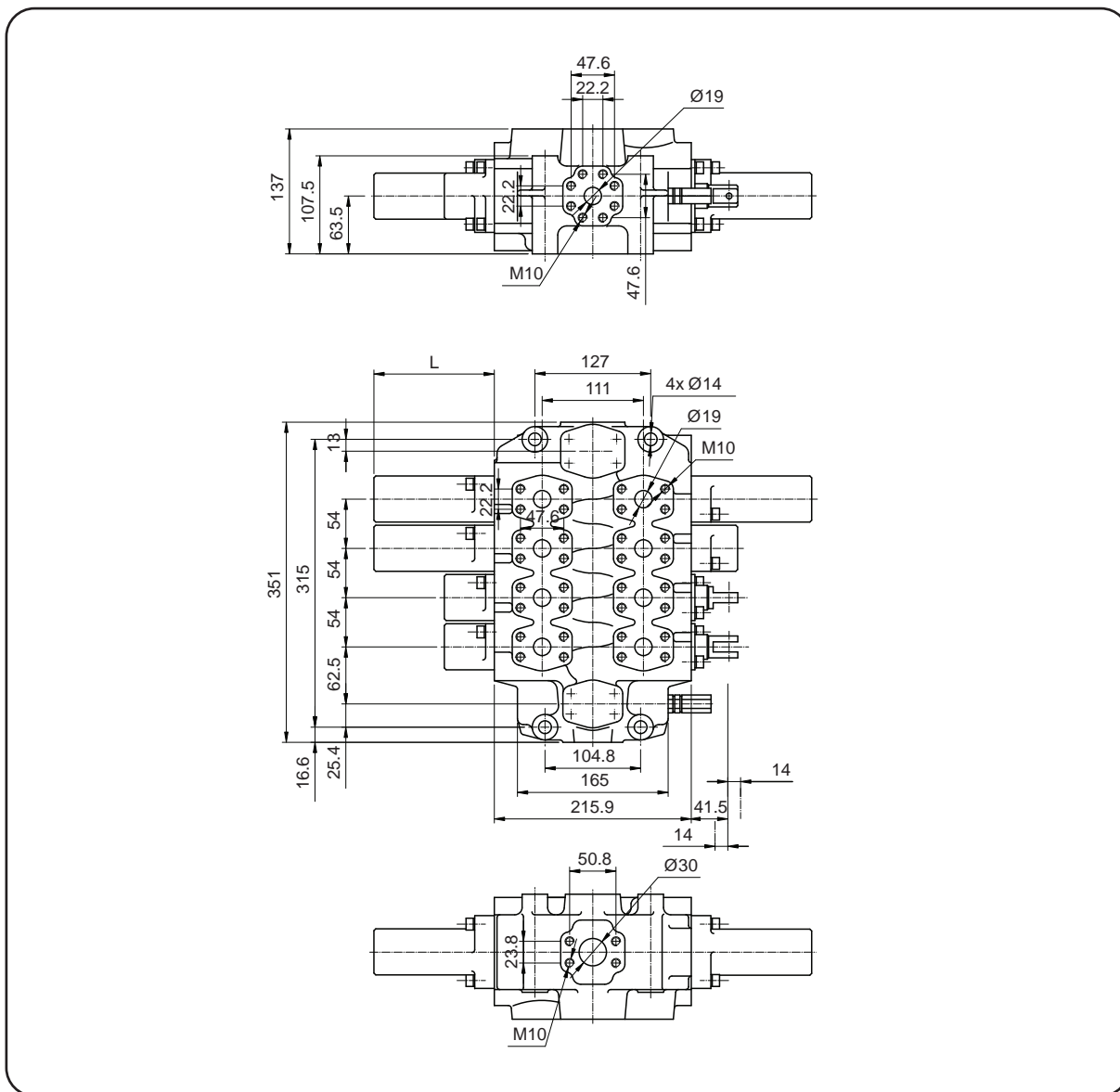
Number of spools	Dim. [mm]		WEIGHT (kg)	
	x	y		
R1107	2	206.6	165.2	18.0
	3	254.2	212.8	24.0
R4107	4	301.8	260.4	30.0
	6	397.0	355.6	42.0

Centring and detent systems								Hydraulic operation
Type	A	B	C	D	F	G	J	H
L [mm]	55	152.5	152.5	152.5	123	123	123	90

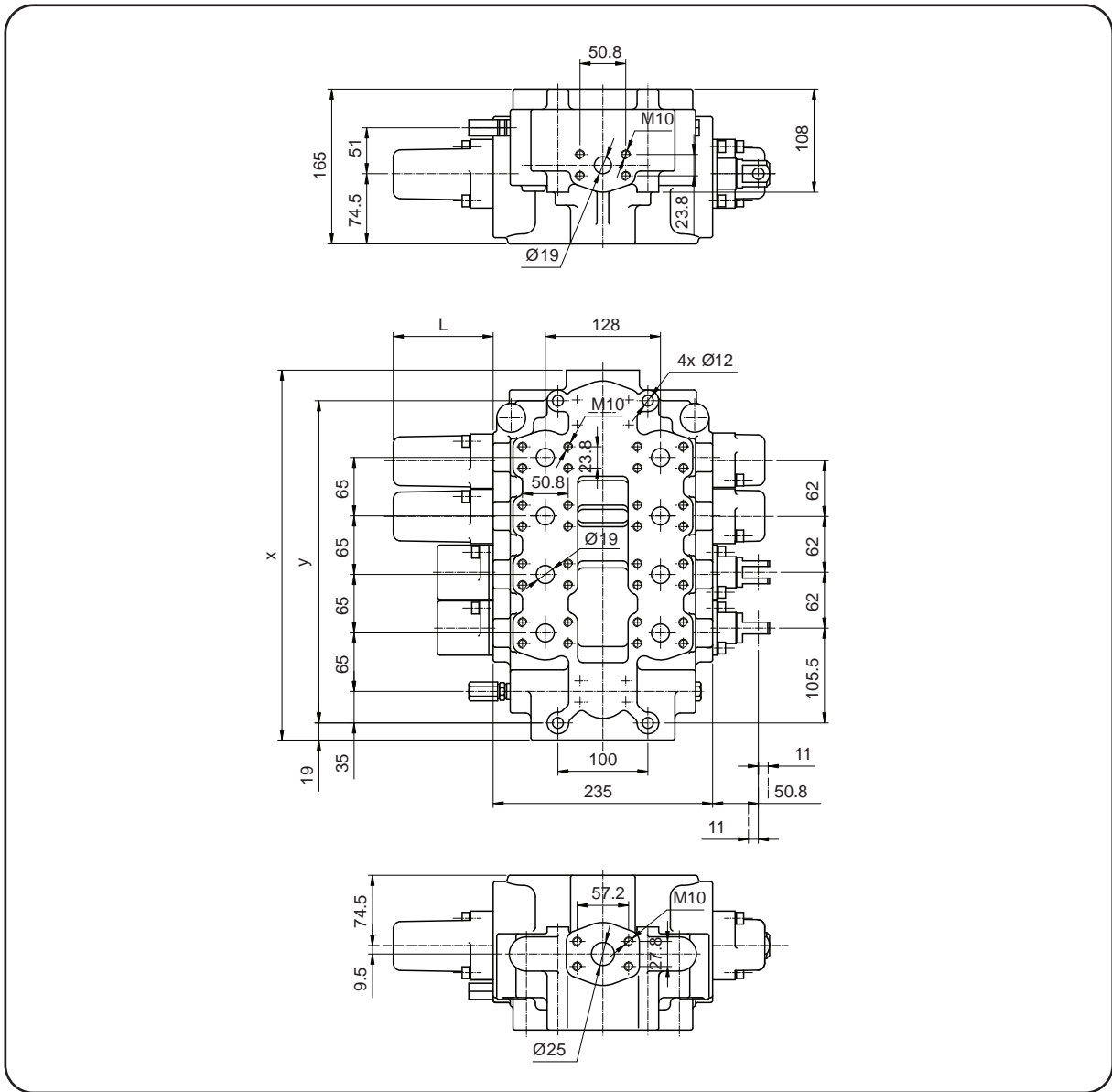


Number of spools	Dim. [mm]		WEIGHT (kg)
	x	y	
R1109	2	235.0	26.0
R4109	3	289.0	37.0

Centring and detent systems								Hydraulic operation
Type	A	B	C	D	F	G	J	H
L [mm]	55	115	115	115	138	138	138	100



Centring and detent systems		Hydraulic operation		WEIGHT (kg)
Type	A	H		55.0
L [mm]	58	132		



Number of spools	Dim. [mm]		WEIGHT (kg)
	x	y	
R5311	2	275	65.0
	4	405	96.0

Centring and detent systems		Hydraulic operation
Type	A	H
L [mm]	62	110

GEAR PUMPS AND MOTORS HAMWORTHY SERIES

DIRECTIONAL CONTROL VALVES / PRODUCTION RANGE

Directional control valves type *	Rated flow [l/min]	Operating pressure [MPa]	Service Ports**	Number of spools ***	Types of spools						Service line valves				Centring and detent systems								Type of operation		
					D	S	N	V	F	C	MRV	ORV	ACV	CRV	A	B	C	D	F	G	J	BH	GH	R	L
R1007	125	17,5	M27x2	1	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
R4007		21,0		2	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
R1009	200	17,5	M33x2		█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
R4009		21,0			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
R1011	320	17,5	SAE flange 1'	2	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
				3	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
R1013	450	17,5	SAE flange 1 1/4'	2	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
				3	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
R1106	60	17,5	M22x15	2	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
R4106		21,0		3	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
R1107	125	17,5	M27x2	2	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
R4107				21,0	3	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
R1109	200	17,5	M33x2	2	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
R4109		21,0		3	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
R5111	200	32,0	SAE 3/4	2	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
				4	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
R1308	140	17,5	SAE 3/4	44	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
R5311	200	32,0	SAE 3/4	44	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		

* CONTROL VALVES:

- █ - tandem circuit
- █ - parallel circuit
- █ - mixed circuit

** Threaded ports

*** Number of spools in the control valves

