

MONOBLOCK DIRECTIONAL CONTROL VALVE TYPE RM40P

GENERAL DESCRIPTION

List: RM40P-1-Sept 2015

Hydraulic valve RM40P provides change of fluid flow direction, hydro-systems pressure restriction, pump unloading in neutral position of the spools. The valve RM40P is designed to be integrated in hydraulic systems of Mobile and Industrial Machines.

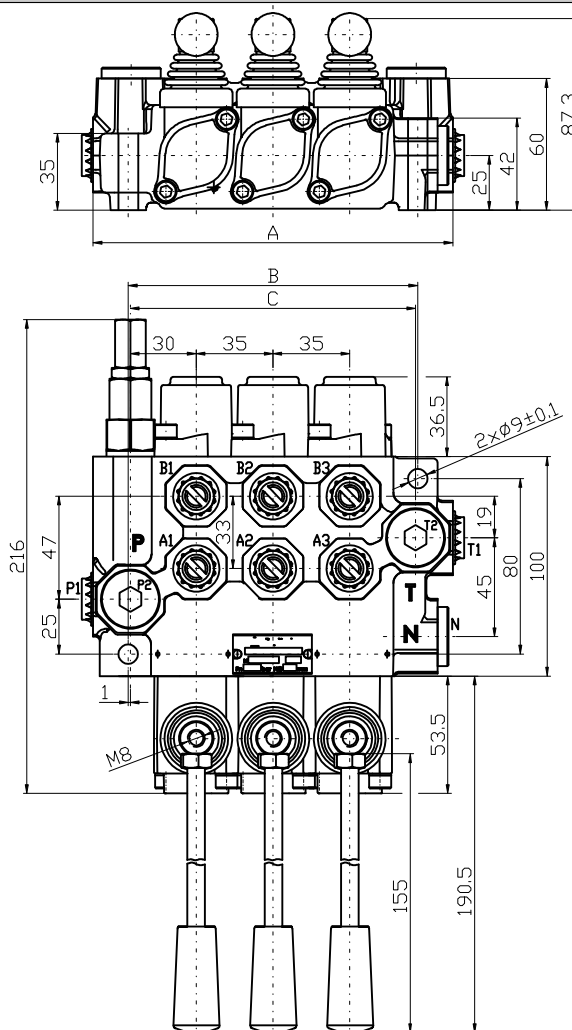
The valve assembly consists of:

A body with integrated relief and check valves, spools, control and spring-centering group of the spools. The valve RM40P provides parallel distribution of the working liquid and direct passing of the flow from the pump line to the tank at neutral position (open center). Options "closed centre" and "carry over" are possible with additional adapters. There are different control options: spring-centering in "neutral" position, detent, automatic kick-out, hydraulic and electro-hydraulic control.

TECHNICAL DATA

Rated flow	40 l/min
Max. pressure	P=250 bar; T=50 bar; A,B= 300 bar
Spool stroke	±6 mm
Working temperature range	-15...+80 °C
Working liquid	hydraulic oil HLP DIN51524
Liquid viscosity	15...300cSt
Nominal filtration	ISO4406: 19/16 (recommended filter element - 0,025mm mesh)
Internal leakage at 120 bar, t=40°C and viscosity 46cSt	max. 8cm ³ /min; max 2cm ³ /min (special version)
Actuating force	less than 200N

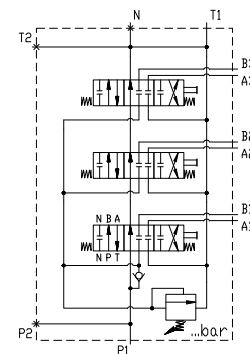
DIMENSIONS



RM40P/03/Q/3x/1CLA1/R/P1T1/G/N

Type	A	B	C	Weight, kg
RM40	87	62	-	2.6
RM40P/02	129	97	95	4.4
RM40P/03	164	132	130	5.9
RM40P/04	199	167	165	7.3
RM40P/05	234	202	200	8.8
RM40P/06	269	237	235	10.3
RM40P/07	304	272	270	11.8

STANDARD PARALLEL CIRCUIT



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ORDERING CODE

RM40PEHI / 0 3 / Q / 1 CL A 1 E1 / R / P1T1 / G / N

parallel connection
for RM40 - omit

type of control	Code
without control	omit
On-Off internal electro-hydraulic	EHI
On-Off external electro-hydraulic	EHE
On-Off electro-pneumatic	EPC
On-Off hydraulic	HC
On-Off pneumatic	PC

common check valve	Code
with check valve for RM40 - omit	0
without check valve	N

number of the spools
for RM40 - omit

relief valve	Code
setting range 5...250bar (example of required settings 180bar)	Q Q180
shut-off plug installed	K

spools	Code
	1
	2
	3
	4
	5
	6
	7
	8*
	9
	10*
	11*

* The scheme (spool code 8, 10 and 11) needs special body with extra machining.

standard port threads			
Code	P1, P2	A, B	T1, T2, N
M	M22x1,5-6H	M18x1,5-6H	M22x1,5-6H
G	G1/2"-A	G3/8"-A	G1/2"-A
U	7/8-14UNF-2B	3/4-16UNF-2B	7/8-14UNF-2B
G1/2	G1/2"-A		

Code	application
N	normal
T	tropical

Code	hydraulic power output
R	open center (port N connected to T - short plug)
W	closed center (port N plugged - long plug)
C	carry over (port N - with power beyond sleeve)

Code	used conn. ports
P1T1	P1 and T1
P1T2	P1 and T2
P2T1	P2 and T1
P2T2	P2 and T2

Code	spool control
1	
2	
3	
4	
5	
6	
7	
8	
9	

Code	micro switch: max. current/voltage - 5A/250V AC protection - IP67 contact configuration
omit	without microswitch
E1	
E2	
E3	

Code	spool control
10	
11*	 Adjustment range of automatic kick-out feature - 60...180bar 20-12 12VDC ON-OFF EHI & EHE 20-24 24VDC 20-11 110VRAC 20-22 220VRAC
12	 30-12 12VDC ON-OFF EPC 30-24 24VDC 30-11 110VRAC 30-22 220VRAC
13	
14	
15	
16	
17	

Code	operation control
C	see page 3/5
CL	
CLO	
CLR	
CLS	
CP	
H	
Z	
J...	see page 4/5

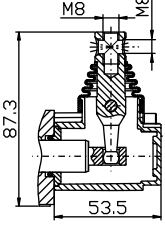
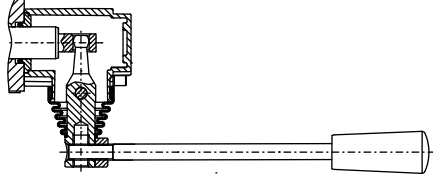
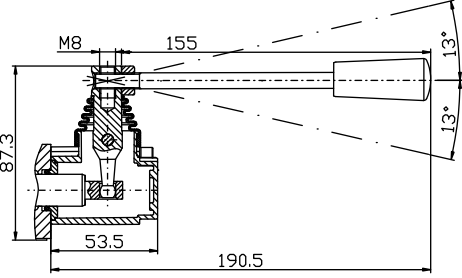
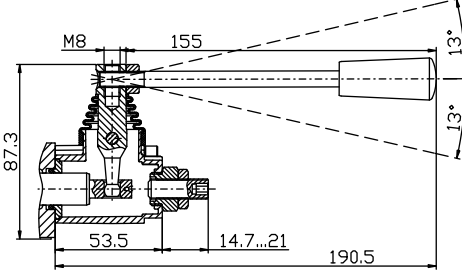
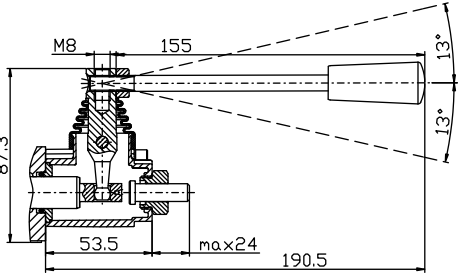
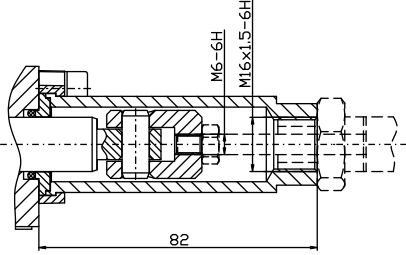
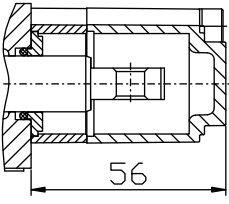
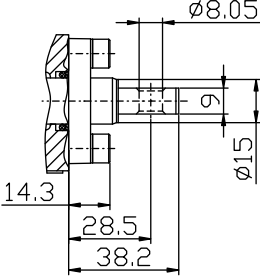
Code	lever position
A	at port side A (standard)
B	at port side B

* The kit (spool control code 11) needs special spool.

** Repeat for each spool. In case of identical spools example ordering code is:
RM40P / 03 / Q / 3x / 1CL A1 / R / P1T1 / G / N

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OPERATION CONTROL

operation control		operation control	Code
<p>without standard hand lever</p> 	C	<p>with standard hand lever at 180°</p> 	CLO
<p>with standard hand lever</p> 	CL	<p>with stroke (flow) limiter</p> 	CLR
<p>with limit switch</p> 	CLS	<p>with cable control</p>  <p>Cables , single levers and joystick controls - on request</p>	H
<p>with protection cap</p> 	CP	<p>without lever , with dust-proof plate</p> 	Z

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OPERATION CONTROL

Working scheme by assembly on the side of threaded ports A (standard)

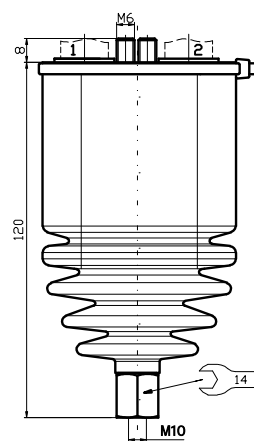
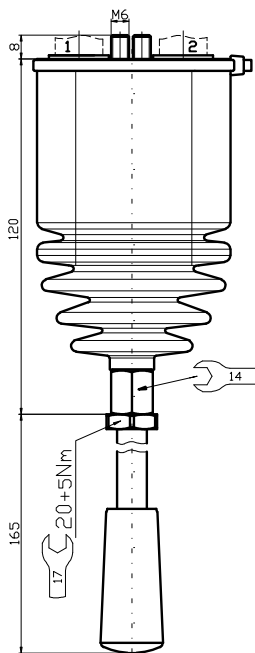
	Code		Code
	J2...		J1...
	J3...		J4...

joystick
with standard hand lever

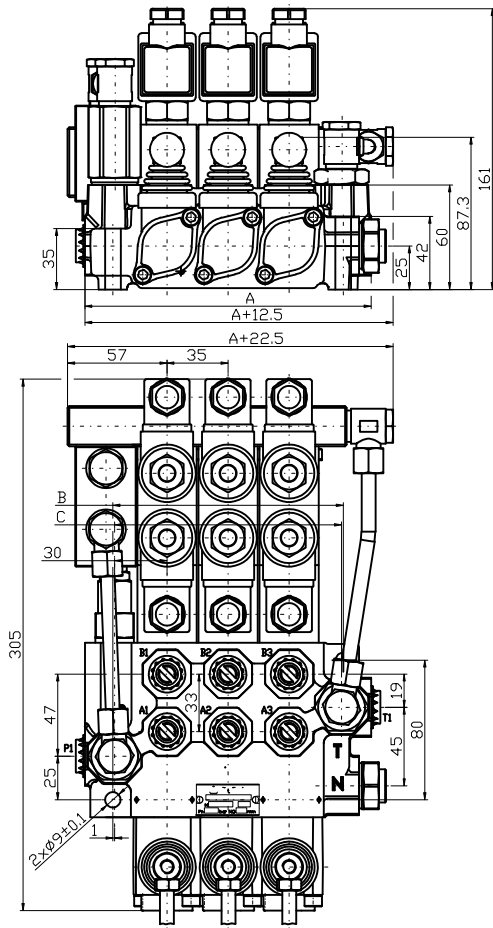
Code: J1L ; J2L ; J3L ; J4L

joystick
without standard hand lever

Code: J1 ; J2 ; J3 ; J4



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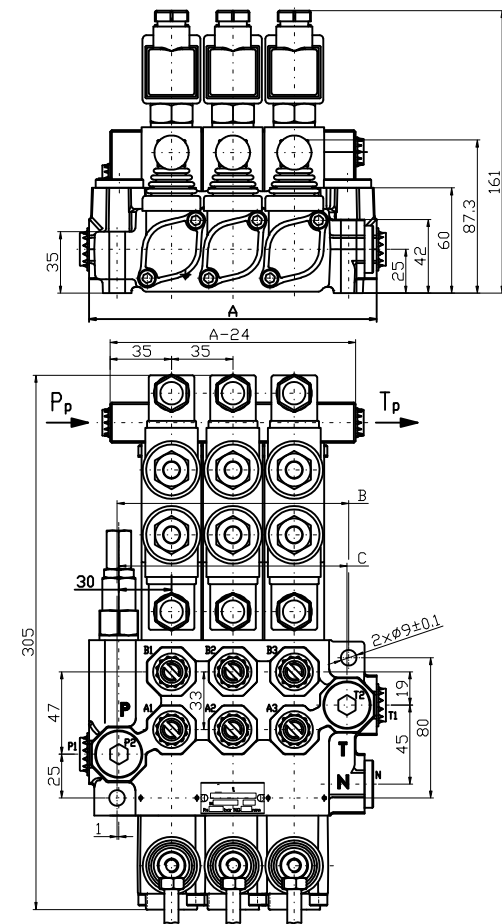
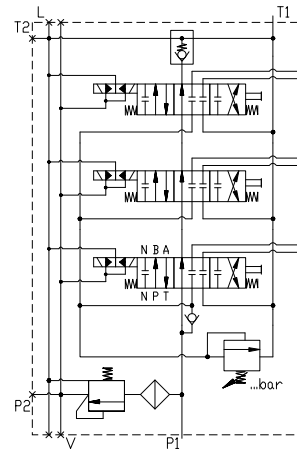


RM40PEHI/03/Q/3x1CLA20-24/R/P1T1/G/N

On/Off electrohydraulic control (internal)
operating features:

- Pilot pressure - 10...50 bar
- Max. pilot flow - 8 l/min
- Filtration - 25 mm
- Coil - 18W , duty cycle ED 100%
- Voltage options - 12V DC , 24V DC , 110V RAC , 220V RAC
- Integrated back pressure valve

Scheme



RM40PEHE/03/Q/3x1CLA20-24/R/P1T1/G/N

On/Off electrohydraulic control (external)
operating features:

- Pilot pressure Pp - 10...50 bar
- Max. pilot flow - 8 l/min
- Filtration - 25 mm
- Coil - 18W , duty cycle ED 100%
- Voltage options - 12V DC , 24V DC , 110V RAC , 220V RAC
- Pp , Tp - G1/4

Scheme

