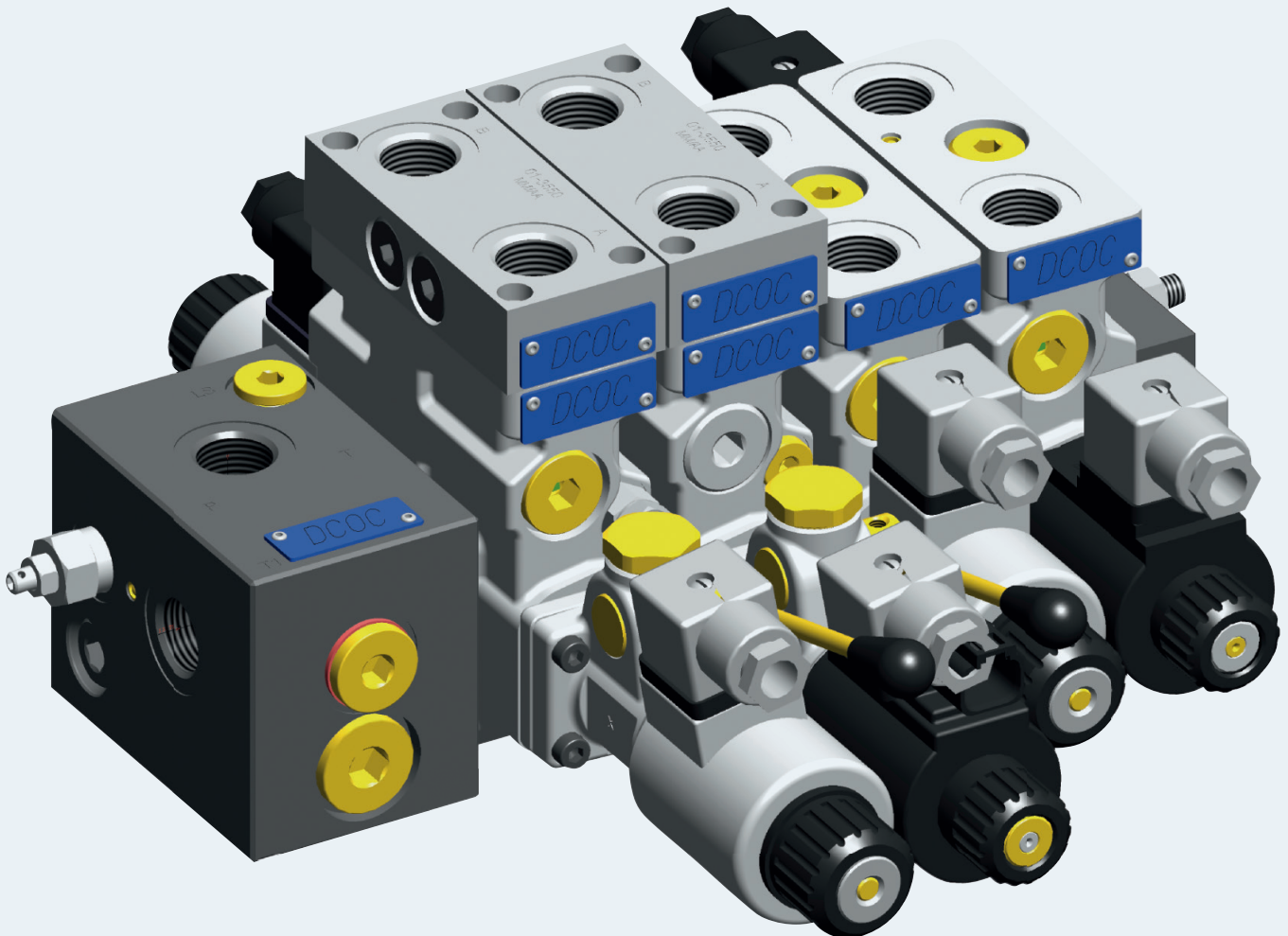


Control block EDC Modular Directional Valve Flow Sharing System





Bosch Rexroth Oil Control S.p.A. introduces the EDC size 06 directional control valve with flow sharing (LUDV concept) to the Bankable product line. It is an ideal solution for applications that require simultaneous movement on more than one actuator in small to medium size mobile machinery.

Features

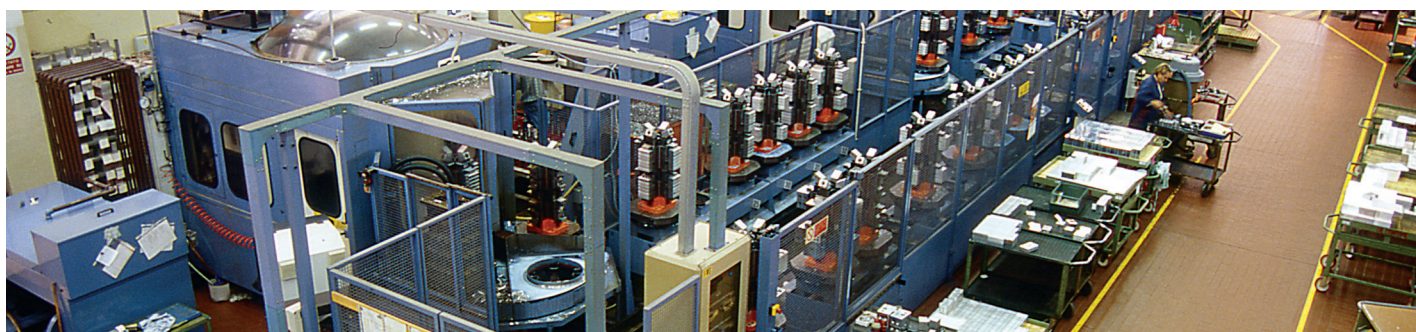
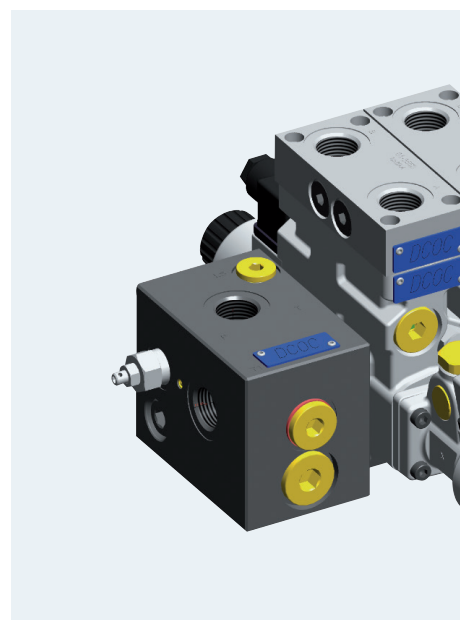
- ▶ Modular elements for creating on-off and proportional solenoid operated hydraulic control blocks for actuators (motors or cylinders)
- ▶ Flow sharing system (LUDV)
- ▶ Standard spools with specific nominal flow rates. Custom on request.

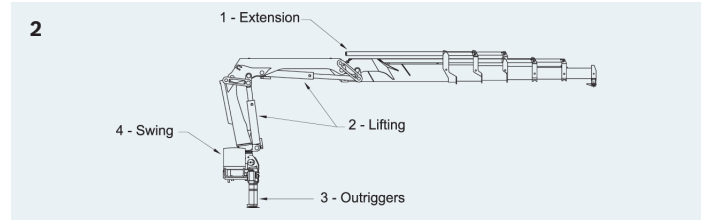
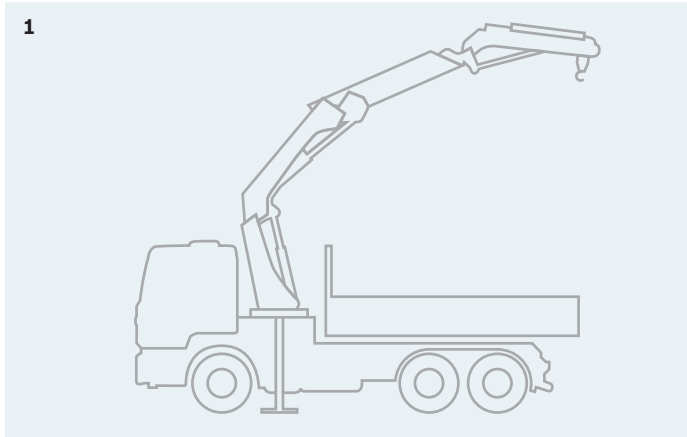
Operation

Each valve element is direct acting, and has on-off or proportional flow sharing control. When combined in a block, these elements can achieve simultaneous activation of different actuators independent from the working pressure by distributing the available flow proportionally to the speeds selected by the operator. All simultaneous movements continue at the same relative speed even in case of flow shortage. The flow range for each valve element can be realized by selecting the appropriate spool. Manual override (push-button, screw type or emergency lever) and different plug-in electric connectors are available upon request.

Advantages

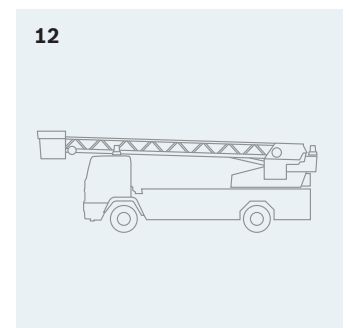
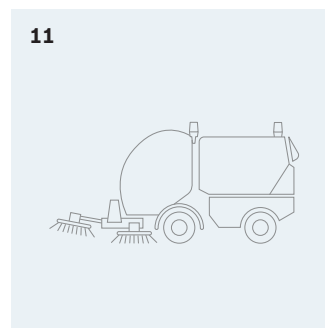
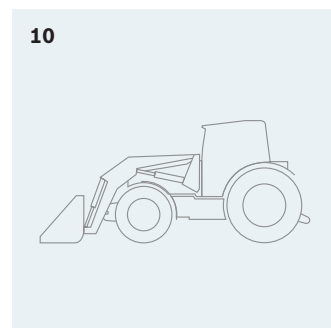
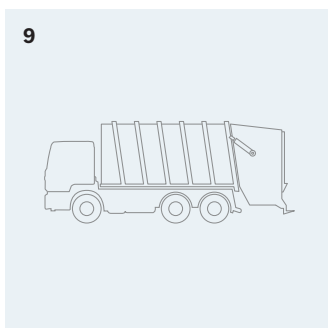
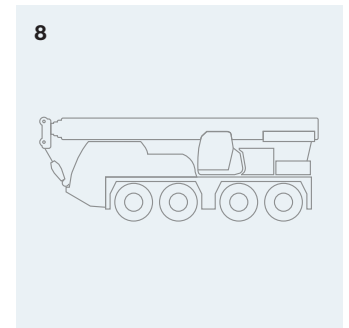
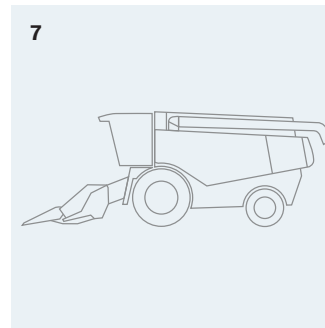
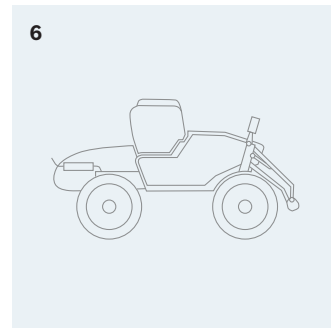
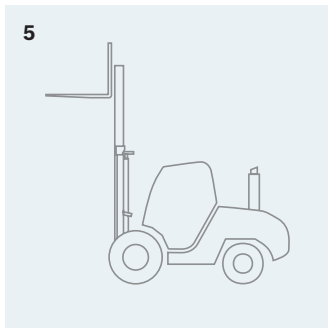
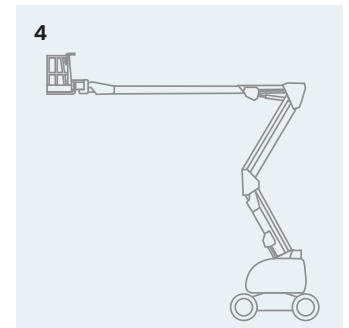
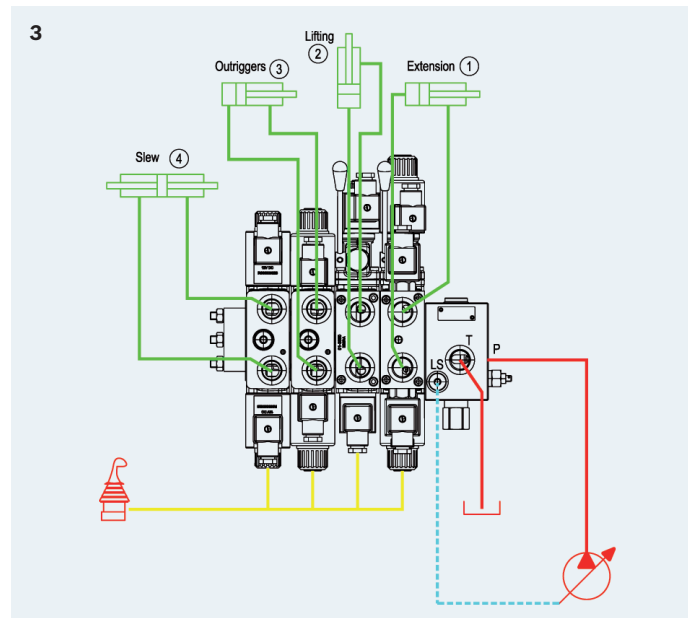
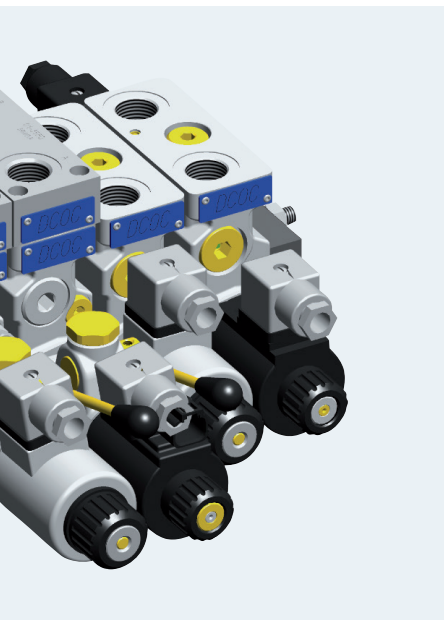
- ▶ Energy savings
- ▶ Simplification of the hydraulic circuit
- ▶ Easily applied to match actuator flow requirements
- ▶ Flow sharing solves the saturation problems seen in load-sensing circuits.
- ▶ Ideal for any mobile application where simultaneous multiple movements are requested.
- ▶ Same flange interface as the ED series
- ▶ Direct acting
- ▶ Compact envelope size





Applications

- ▶ 1. Truck mounted crane
- ▶ 2. Crane
- ▶ 3. Truck mounted crane layout
- ▶ 4. Aerial platform
- ▶ 5. Fork lift
- ▶ 6. Sprayer
- ▶ 7. Harvester
- ▶ 8. All terrain crane
- ▶ 9. Garbage truck
- ▶ 10. Front loader
- ▶ 11. Road sweeper
- ▶ 12. Aerial ladder platform



EDC – Control block



Assembly drawing

18	29-0002	CONN. MPH 182-09-M/NERO B	4
17	29-0001	CONN. MPH 182-09-G/GRIGIO A	4
16	42-0013/A	VITE TOE1 UNI 5931 M5X25-CL.8-8-ZB	8 5-6
14	44-0002	ROND. SCHWABER M5 ZB	8
13	42-0203	DADO ES. UNI 5588 M8X10 M8-CL10-ZB	3 20-22
12	44-0004	ROND. SCHWABER M8 ZB	3
11	42-01767	TIRANTI M8X230 ZINCHITO	3 20-22
10	43-000299	RIVETTI COBERT DIN914 2.4	2
9	43-0000000000008	TARG.NEUTRA SELETTORI VS	1
8	48-151535	TC-02-03-00-C1	1
7	L93777700446600	F.EDC-02-E251-120C-N	1
6	L93777700456600	F.EDC-P-E251-120C-N	1
5	L93777700436600	F.EDC-Z-M00-E251-ELH8-N	1
4	L93777700426600	F.EDC-P-M00-E251-ELH8-N	1
2	L85650106U0020	EY.EDCH-YMH/M8-2208H-N	2
1	L93777700396600	F.1E-06-03-02-15-C1	1

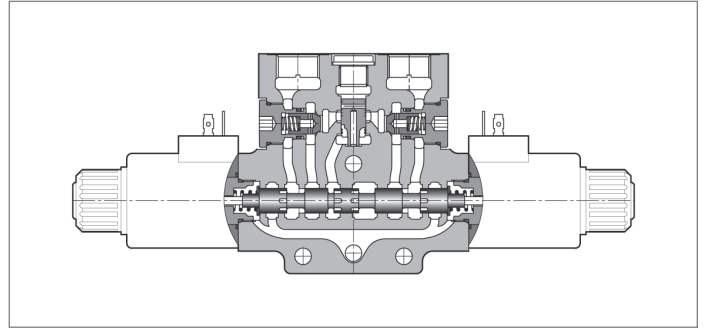
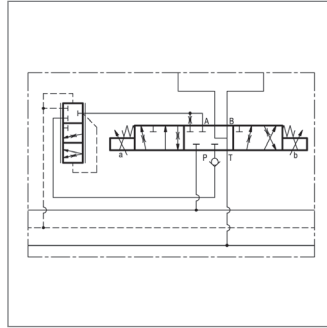
Pos.	Codice	Descrizione	Q.tà	C5a1n-max1a1n1a
1	L93777700396600	F.1E-06-03-02-15-C1	1	

MATERIALE DESCRIZIONE		MATERIALE DESCRIZIONE	
1	L93777700418600	1	L93777700418600

Rexroth Bosch Group		Rexroth Bosch Group	
FORMATO A2	WEIGHT 100	DATE 03/02/2010	SCALE 1:1.5
CREATED	CREATED	MATERIAL NUMBER R33300728	PRODUCT HIERARCHY 873337026
APPROVED	APPROVED	PROJECT CODE	REV. 01

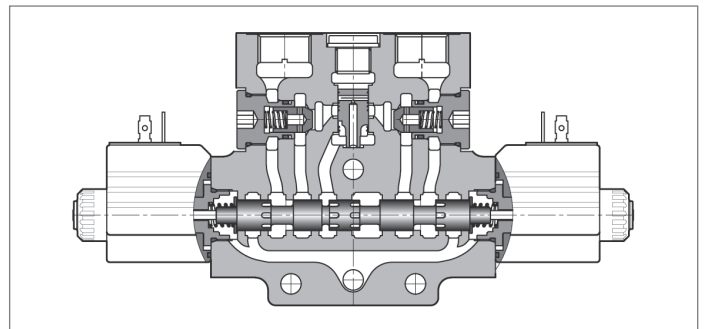
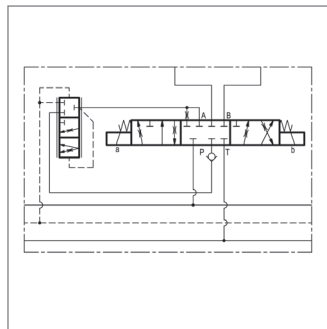
- ▶ Modular system to create electro-hydraulic control of actuators (motors or cylinders) in open circuits.
- ▶ Flow sharing (LUDV) system for multiple movements simultaneously.
- ▶ Energy saving.
- ▶ Simplification of the hydraulic circuit.
- ▶ Solution to flow saturation problems seen in load-sensing circuits.

EDC-P – Proportional modular directional valves



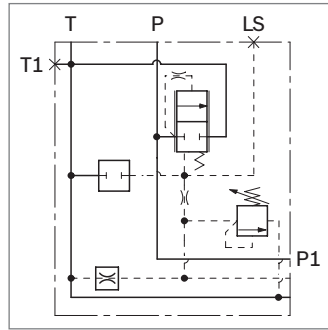
Port			SAE 8	
Nominal flow		l/min (gpm)	4 (1), 8 (2), 12 (3), 16 (4), 25 (7), 40 (11), 50 (13)	14 bar deltaP
Maximum flow		l/min (gpm)	58 (15.3)	18 bar deltaP
Maximum operating pressure	P, A and B	bar (psi)	310 (4500)	
	T	bar (psi)	210 (3000)	
Maximum number of directional valves			10	
Actuation	Electrical		Solenoid operated direct acting proportional	PWM 120 Hz
	Override		Push button, screw type, lever type	
Voltage supply		Volt	DC: 12, 13, 24, 27, 48, 110 RAC: 24, 110, 230	
Current max.		Ampere	1.76 (12 DC) - 0.88 (24 DC)	
Electrical connections		Type	DIN EN 175301-803, AMP-J, Deutsch DT04-2P	
Stacking module			Port relief, Port relief with anti-cavitation, PO Check	

EDC-Z and DZ – On-off modular directional valves



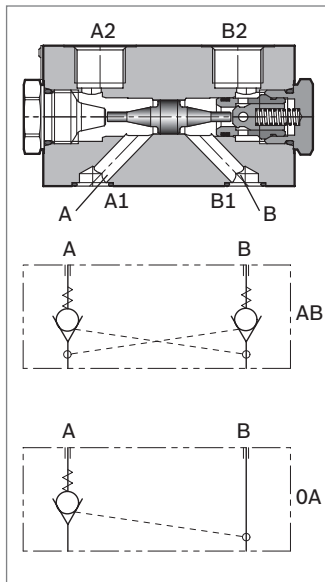
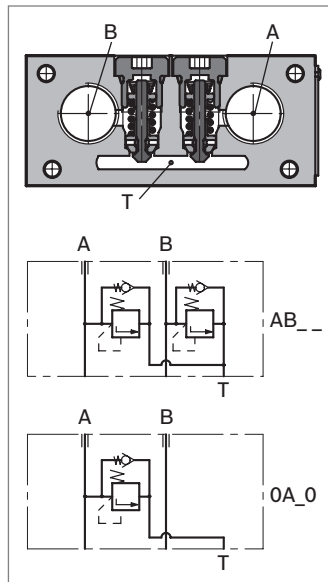
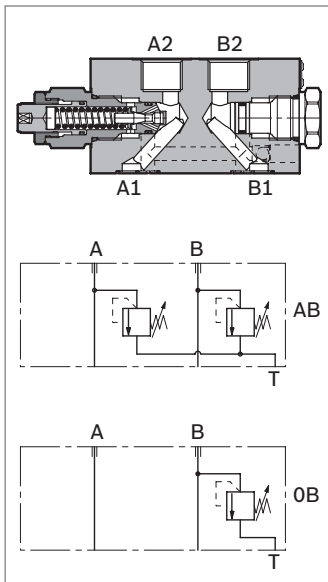
Port			SAE 8	
Maximum flow		l/min (gpm)	54 (14.3)	
Maximum operating pressure	P, A and B	bar (psi)	310 (4500)	
	T	bar (psi)	210 (3000)	
Maximum number of directional valves			10	
Actuation	Electrical		Solenoid operated direct acting on/off	
	Override		Push button, screw type, lever type	
Voltage supply		Volt	DC: 12, 13, 24, 27 RAC: 24, 110, 230	
Power consumption		Watt	DC: 26, 31, 33 RAC: 29, 33, 35	
Electrical connections		Type	DIN EN 175301-803, AMP-J, Deutsch DT04-2P	
Stacking module			Port relief, Port relief with anti-cavitation, PO Check	

TE-13 – Inlet plate open center circuit

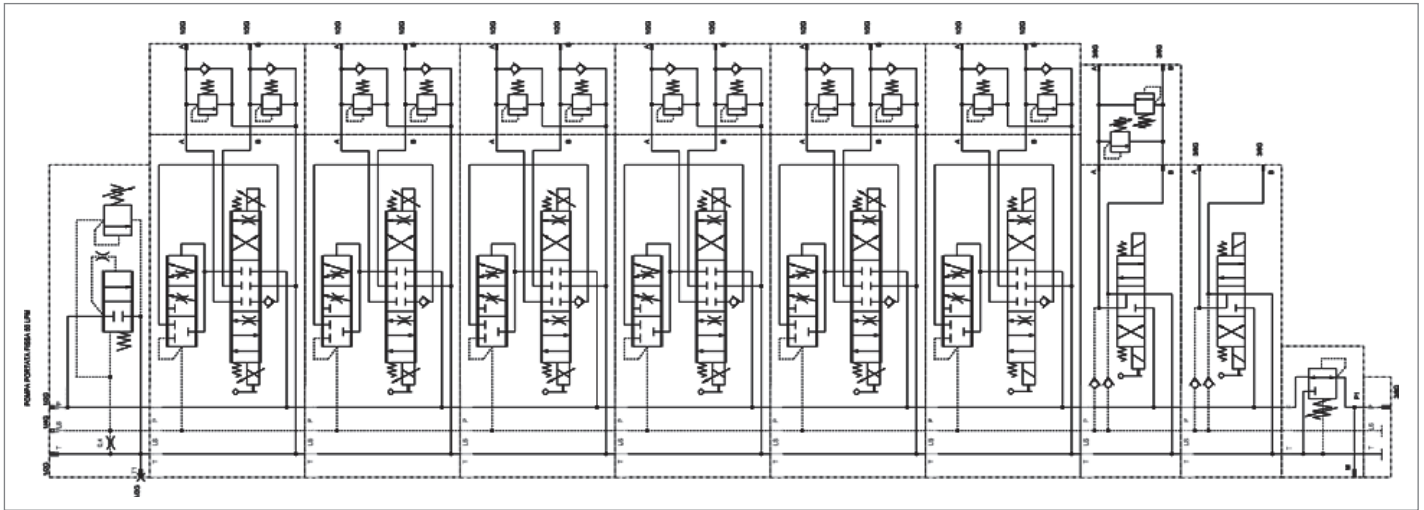


Port		SAE 10
Maximum flow	l/min (gpm)	33 (9), 50 (13), 80 (21), 120 (32)
Maximum operating pressure	bar (psi)	310 (4500)
Cracking pressure	bar (psi)	14 (203), 18 (261), Adjustable 8-18 (116-261)
Internal LS drain	mm	0.3, 0.4, 0.5

EDCMF – stacking modules:
relief, relief/anti-cavitation, pilot operated check

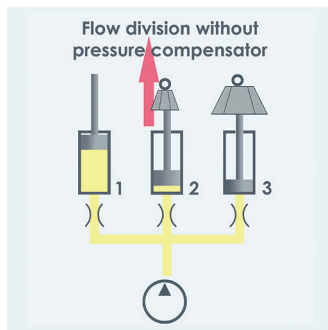


Application circuit



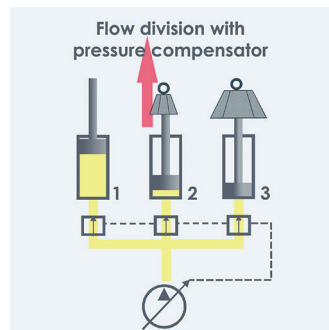
- ▲ Hydraulic circuit, with open center inlet plate, 6 elements EDC Flow Sharing on-off and Proportional Control, anti-shock and anti-cavitation valves, combined with 2 elements not compensated on-off control

Flow sharing – LUDV



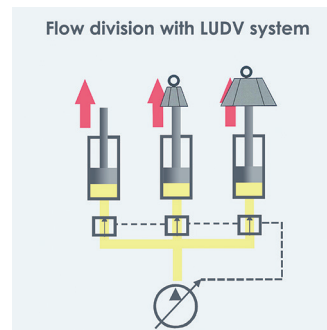
Standard

The simultaneous movements are allowed only if load pressures are balanced. When an operation needs a higher pressure, the movement is stopped.



Load sensing

The simultaneous movements are allowed until the saturation of the system. Then the operation which needs the higher pressure will stop.



Flow sharing

Even in the case of a saturation condition, the simultaneous movements are assured.

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www.boschrexroth-us.com/addresses

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