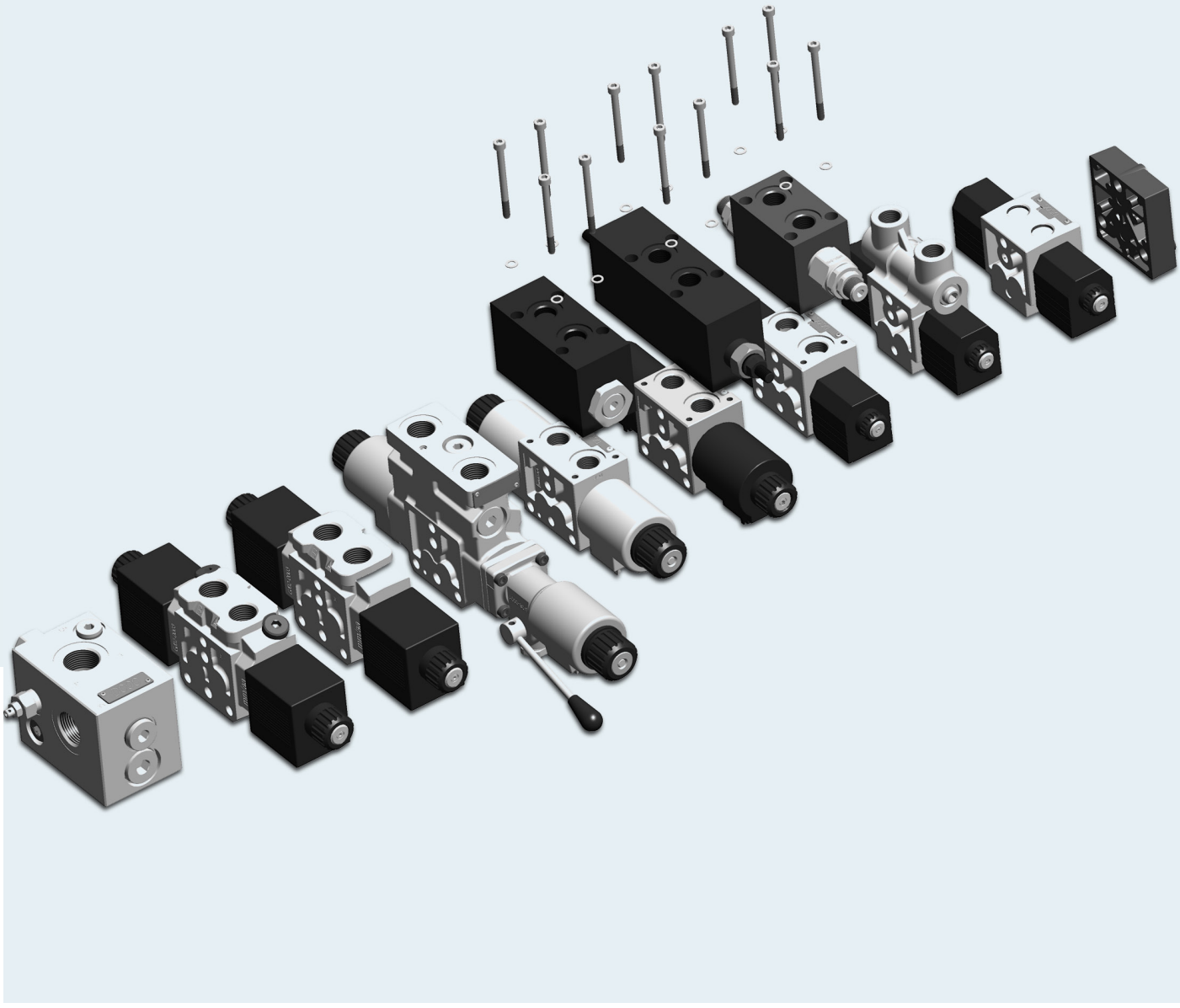
The Drive & Control Company

Rexroth
Bosch Group

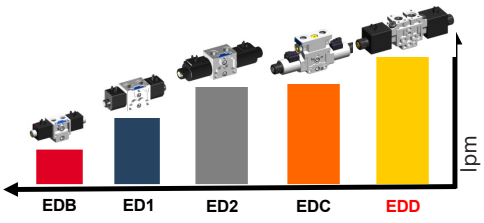
Modular Directional valves ED assembly



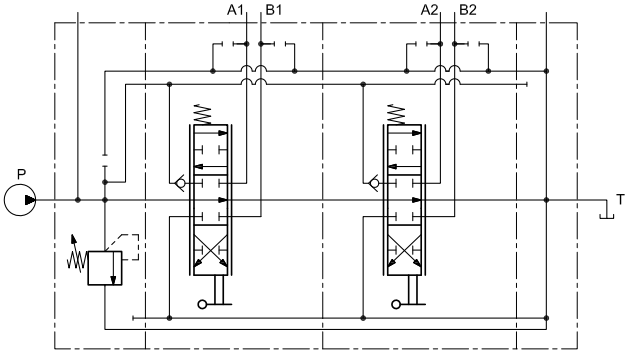
Bosch Rexroth Oil Control introduces the "Modular Directional Valve – ED assembly brochure": released to simplify the modular system's selection, depending on the target applications. The goal was to create a document (which doesn't replace the product catalog) very simple to consult. Thanks to the complete products list, the clear symbology and feasible options, the brochure can guide the user in the component's choise. The ED assembly brochure is based on the "Slice ED concept", which replaces the traditional "6 ways directional valve system" allowing potentially infinite combinations to match any customers needs and to improve their machines performances.
The ED assembly brochure helps the users in completing the configuration of modular elements for creating on-off and proportional solenoid operated
hydraulic control blocks for actuators (motors or cylinders).

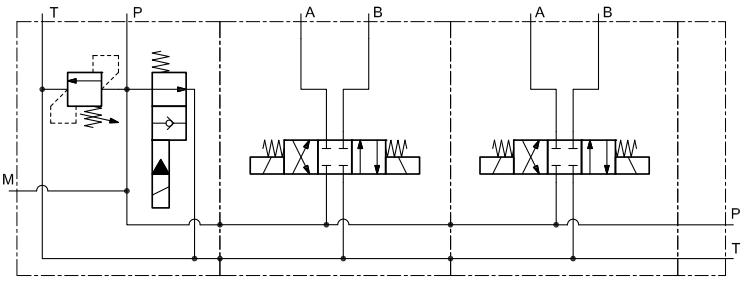
Based on the circuit type, it will be easy to choose between the suggested slice elements in order to configure the proper modular system matching the circuit features. The brochure also includes some hydraulics schemes which can be developed for different circuits/applications types.

In case of systems/applications in which the flow request is over 80 lpm per each section, it's also possible to assembly the ED slices with the M412/M415 elements, helping in the creation of "Hybrid Solutions".



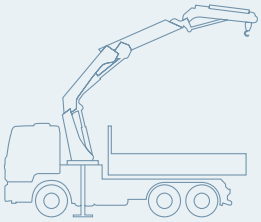
Picture 1

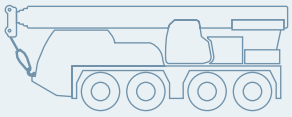


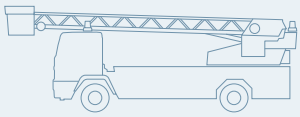


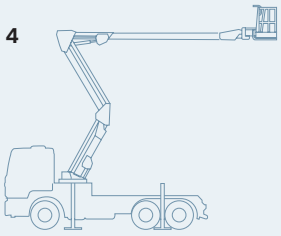
Picture 2

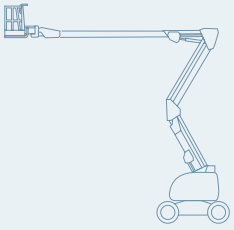
The pictures 1 and 2 show the main difference between ED modular system and a traditional 6 ways directional valve. In the traditional scheme (picture 1) pump is unloaded by the by-pass channel available in the 6 ways directional valve, while in ED concept a valve is used to bypass/dump the flow. The most popular valve used is a 2/2 electric valve, as shown in picture 2, or a logic element. Therefore the whole system is much more compact and a safer bypass system is applied.

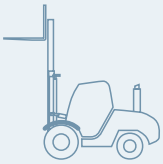
1


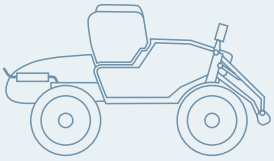
2


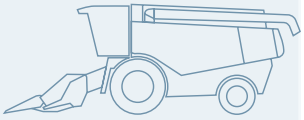
3


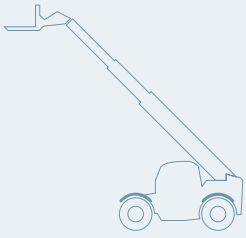
4


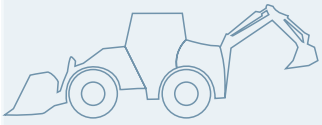
5


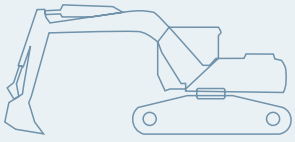
6


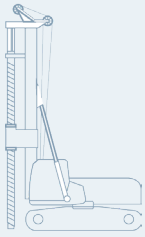
7


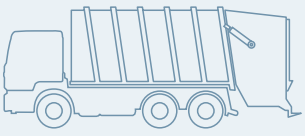
8


9


10


11


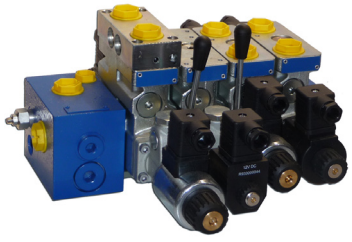
12


13


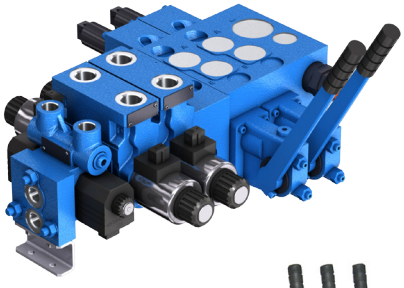
14


Applications

- 1. Truck mounted crane
- 2. All terrain crane
- 3. Aerial ladder platform
- 4. Aerial platform on truck
- 5. Aerial platform
- 6. Fork lift
- 7. Sprayer
- 8. Harvester
- 9. Telehandler
- 10. Backhoe loader
- 11. Excavator
- 12. Drilling
- 13. Garbage truck
- 14. Sweeper



EDC slices assembly

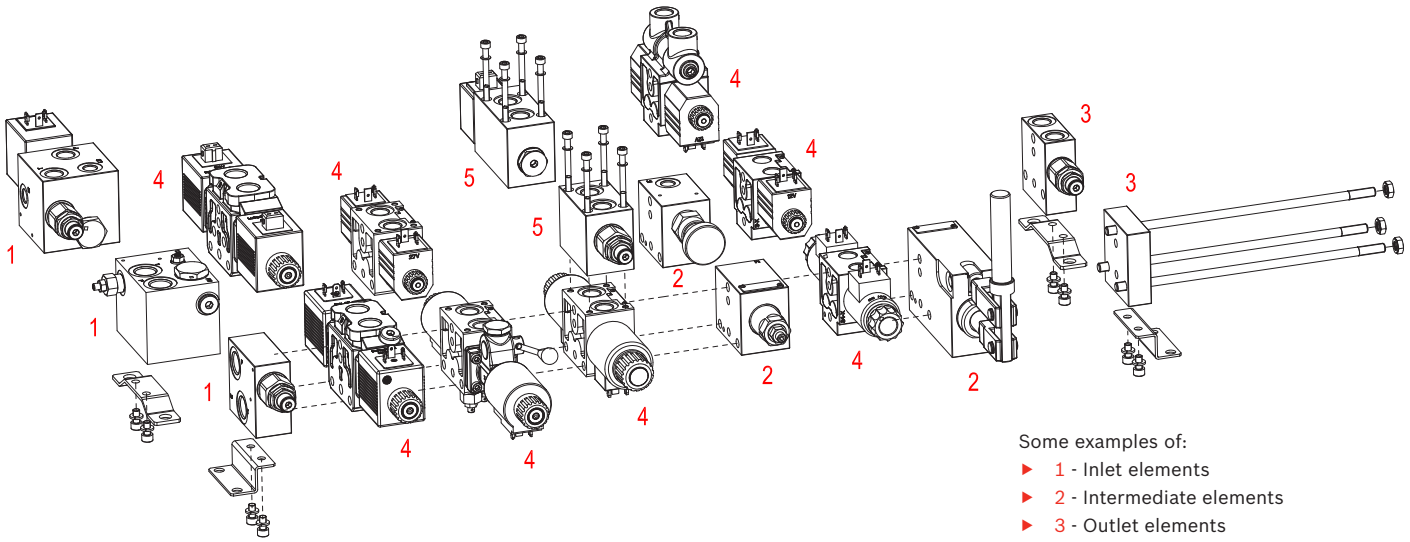


Hybrid solution
M4 + EDC + EDB slices assembly

EDD slices assembly

Hybrid solution
M4 + EDC + ED slices assembly

Fixed displacement pump - single movements (On-Off / Proportional)

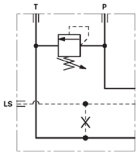


Some examples of:

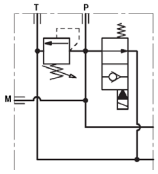
- 1 - Inlet elements
- 2 - Intermediate elements
- 3 - Outlet elements
- 4 - Directional valve elements
- 5 - Flangeable elements

1 - Inlet elements

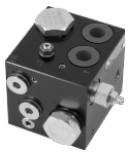
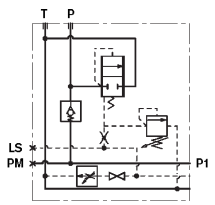
TE-04 (*)	Data sheet 18300-04	**Technical Data**	
Inlet element with primary pressure relief valve and with LS connection		Max pressure	250 bar 3600 psi
		Max inlet flow	50 l/min 13 gpm
		Material	Aluminum
		Port connections	G 3/8-G1/2 SAE8

TE-05	Data sheet 18300-05	**Technical Data**	
Inlet element with primary pressure relief valve and with solenoid unloading cartridge		Max pressure for aluminum version	250 bar 3600 psi
		Max pressure for cast iron version	310 bar 4500 psi
		Max inlet flow	50 l/min 13 gpm
		Port connections	G 3/8-G1/2 SAE8

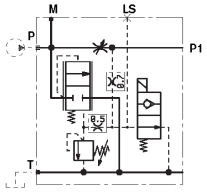



TE-06	Data sheet 18300-06	**Technical Data**	
Inlet element with limitation of primary pressure in the system and LS controlled unloading of excess flow		Max pressure	250 bar 3600 psi
		Max inlet flow	up to 90 l/min 24 gpm
		Rated flow at P1	40 l/min 11 gpm
		Max rated flow through LS drain	0,7 l/min 0,2 gpm
		Material	Aluminum
		Port connections	G 3/8-G1/2

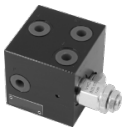
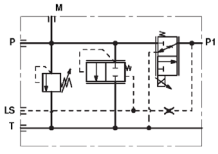



(*) *External unloading must to be applied. LS port must to be plugged*

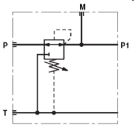
TE-07	Data sheet 18300-07	**Technical Data**	
Inlet element with limitation of primary pressure, LS compensated flow control and solenoid operated unloading		Max pressure	250 bar 3600 psi
		Max inlet flow	90 l/min 24 gpm
		Rated flow at P1	0-30 l/min 0-8 gpm
		Material	Aluminum
		Port connections	G1/2

TE-10	Data sheet 18300-09	**Technical Data**	
Inlet element with primary pressure relief valve and proportional LS controlled 3-way flow regulator		Max pressure	210 bar 3000 psi
		Max inlet flow	40 l/min 11 gpm
		Rated flow at P1	32 l/min 9 gpm
		Material	Aluminum
		Port connections	G 3/8-G1/2 SAE8

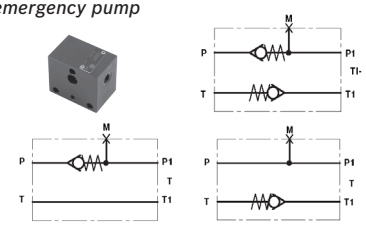
TE-11	Data sheet 18300-10	**Technical Data**	
Inlet element with pressure reducing valve on the P line		Max pressure	250 bar 3600 psi
		Max inlet flow	50 l/min 13 gpm
		Material	Aluminum
		Port connections	G 3/8-G1/2 SAE8

2 - Intermediate elements

TI-00 Data sheet 18301-25

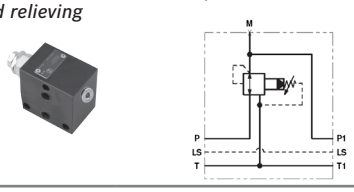
Intermediate element with chack valves for emergency pump



Technical Data	
Max pressure	250 bar 3600 psi
Max inlet flow	50 l/min 13 gpm
Material	Aluminum

TI-03 Data sheet 18301-26

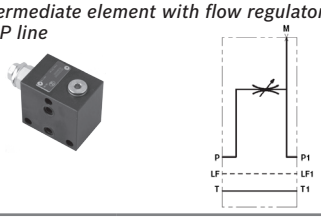
Intermediate element with pressure reducer and relieving



Technical Data	
Max pressure	250 bar 3600 psi
Max inlet flow	50 l/min 13 gpm
Material	Aluminum

TI-04 Data sheet 18301-27

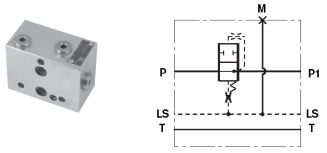
Intermediate element with flow regulator on P line



Technical Data	
Max pressure	250 bar 3600 psi
Max inlet flow	50 l/min 13 gpm
Material	Aluminum

TI-C2 Data sheet 18301-28

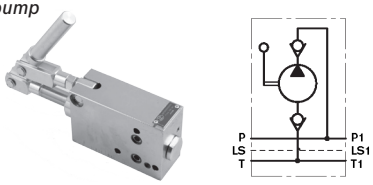
Intermediate element with 2 way compensator, and with LS connection



Technical Data	
Max pressure	310 bar 4500 psi
Max inlet flow	30 l/min 8 gpm
Material	Cast iron

EPM-DE-18 Data sheet 18301-30

Intermediate element with double acting hand pump

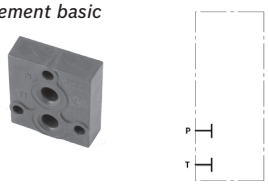


Technical Data	
Max resistance pressure	310 bar 4500 psi
Max generated pressure	250 bar 3600 psi
Total diplacement	18 cc 1 in^3
Opening displacement	8.5 cc 0.5 in^3
Closing displacement	9.5 cc 0.6 in^3
Material	Cast iron

3 - Outlet elements

TC-00 Data sheet 18301-60

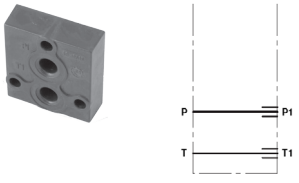
End element basic



Technical Data	
Max pressure for aluminum version	250 bar 3600 psi
Max pressure for cast iron version	310 bar 4500 psi

TC-03 Data sheet 18301-63

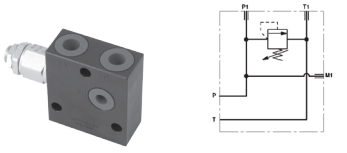
Outlet element with additional inlet port P1 and tank port T1



Technical Data	
Max pressure for aluminum version	250 bar 3600 psi
Max pressure for cast iron version	310 bar 4500 psi
Max flow in P and T	50 l/min 13 gpm
Port connections	G 3/8-G1/2

TC-04 Data sheet 18301-64

Outlet element with pressure relief valve and with P, T and M ports for downstream operators



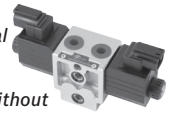
Technical Data	
Max pressure	250 bar 3600 psi
Max flow in P and T	35 l/min 9 gpm
Material	Aluminum
Port connections	G 3/8

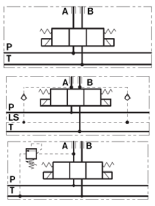
4 - Directional valve elements - On-Off

EDBZ

Data sheet 18300-52

4/3-4/2 directional valve element with or without secondary relief valve and with or without LS connection



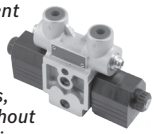


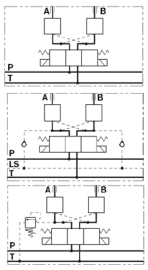
Technical Data	
Size	4
Max operating pressure	310 bar 4500 psi
Max flow	25 l/min 7 gpm
Port connections	G 3/8 SAE6 M16x1.5
Electrical connection	EN 175301-803, AMJ, DT04-2P

EDBZ-VR

Data sheet 18300-53

4/3 directional valve element with or without secondary relief valves, with or without LS connection, and PO check valves



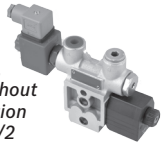


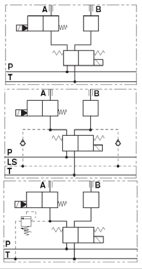
Technical Data	
Size	4
Max operating pressure	250 bar 3600 psi
Max flow	20 l/min 5 gpm
Port connections	G 3/8 SAE6 M16x1.5
Electrical connection	EN 175301-803, AMJ, DT04-2P

EDBZ-VEI

Data sheet 18300-54

4/2 directional valve element with or without secondary relief valve, with or without LS connection and with 2/2 solenoid cartridge valve



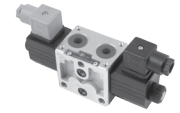


Technical Data	
Size	4
Max operating pressure	310 bar 4500 psi
Max flow	25 l/min 7 gpm
Port connections	G 3/8 SAE6 M16x1.5
Electrical connection	EN 175301-803, AMJ, DT04-2P

ED1-Z

Data sheet 18301-01

4/3-4/2 directional valve element with or without secondary relief valves, with or without LS connection



Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	30 l/min 8 gpm
Port connections	G 3/8 SAE6
Electrical connection	EN 175301-803, AMJ, DT04-2P

ED2-DZ

Data sheet 18301-02

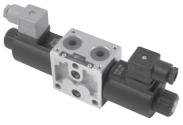
4/3-4/2 directional valve element with or without secondary relief valves, with or without LS connection

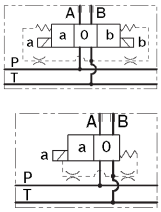
Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8-SAE6 G 1/2-SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

ED2S-DZ

Data sheet 18301-03

4/3-4/2 directional valve element with soft-shift



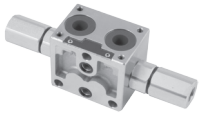


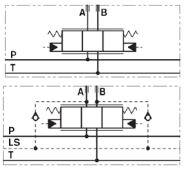
Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8
Electrical connection	EN 175301-803, AMJ, DT04-2P

ED-IP

Data sheet 18301-07

4/3 directional valve element with proportional hydraulic control and with or without LS connection



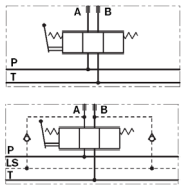


Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	45 l/min 12 gpm
Port connections	G 3/8-SAE6 G 1/2-SAE8

ED-LV

Data sheet 18301-08

4/3 directional valve elements with manual lever operated control and with or without LS connections

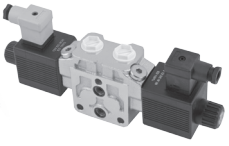


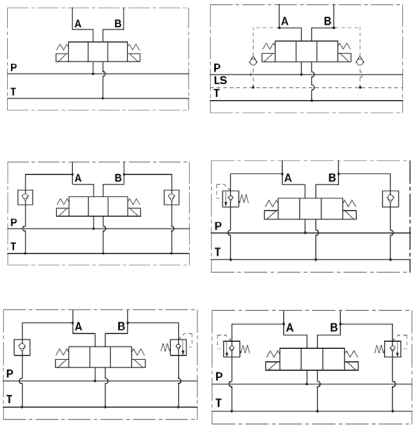
Technical Data	
Size	6
Series	00
Max operating pressure	310 bar 4500 psi
Max flow	60 l/min 16 gpm
Port connections	G 3/8- G 1/2-SAE8

EDD-XZ

Data sheet 18301-12

4/3-4/2 directional valve elements with or without secondary relief valves, and with or without LS connections



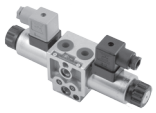


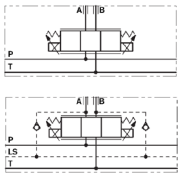
Technical Data	
Size	8
Max pressure (pump side)	310 bar 4500 psi
Max pressure (actuator side)	380 bar 5500 psi
Max flow	80 l/min 21 gpm
Port connections	G1/2-SAE10 Flangeable
Electrical connection	EN 175301-803, AMJ, DT04-2P

4 - Directional valve elements - Proportional

EDB-P Data sheet 18300-55

4/3-4/2 directional valve element with proportional control and with or without LS connection

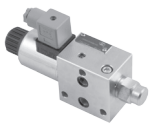


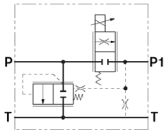


Technical Data	
Size	4
Max operating pressure	310 bar 4500 psi
Max flow	17 l/min 5 gpm
Port connections	G 3/8 SAE6 M16x1.5
Electrical connection	EN 175301-803, AMJ

ED4-PTC Data sheet 18301-05

Directional valve element with compensated proportional control of tank unloaded excess flow

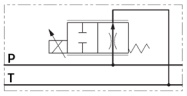




Technical Data	
Size	6
Max operating pressure	250 bar 3600 psi
Max flow	40 l/min 11 gpm
Electrical connection	EN 175301-803, AMJ, DT04-2P

ED4-PT Data sheet 18301-04

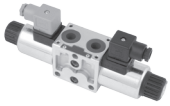
Directional valve element with proportional control of tank unloaded excess flow

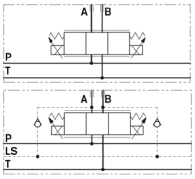


Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	28 l/min 7 gpm
Electrical connection	EN 175301-803, AMJ, DT04-2P

ED4-P Data sheet 18301-06

4/3-4/2 directional valve element with proportional control and with or without LS connection



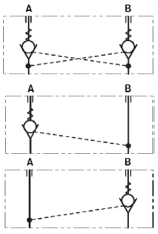


Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	30 l/min 8 gpm
Port connections	G 3/8-SAE6 G 1/2-SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

5 - Flangeable elements

EDM-VR Data sheet 18301-40

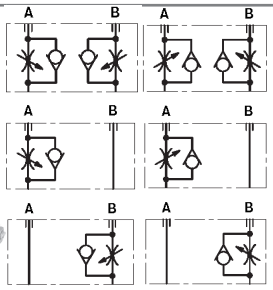
Flangeable element with single or double acting cross piloted check valves



Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8
Material	Aluminum

EDM-VF Data sheet 18301-42

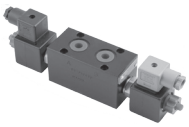
Flangeable element with unidirectional flow control for meter-in and meter-out

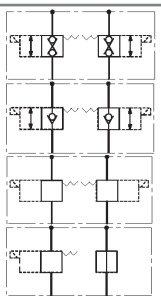


Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8
Material	Aluminum

EDM-VEI Data sheet 18301-44

Flangeable element with 2/2 solenoid cartridge valves

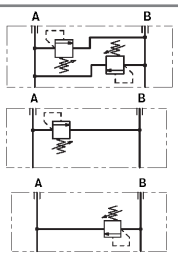




Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	40 l/min 11 gpm
Port connections	G 3/8
Electrical connection	EN 175301-803, AMJ, DT04-2P

EDM-VM Data sheet 18301-41

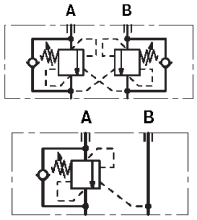
Flangeable element with single or double secondary pressure relief valve



Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8
Material	Aluminum

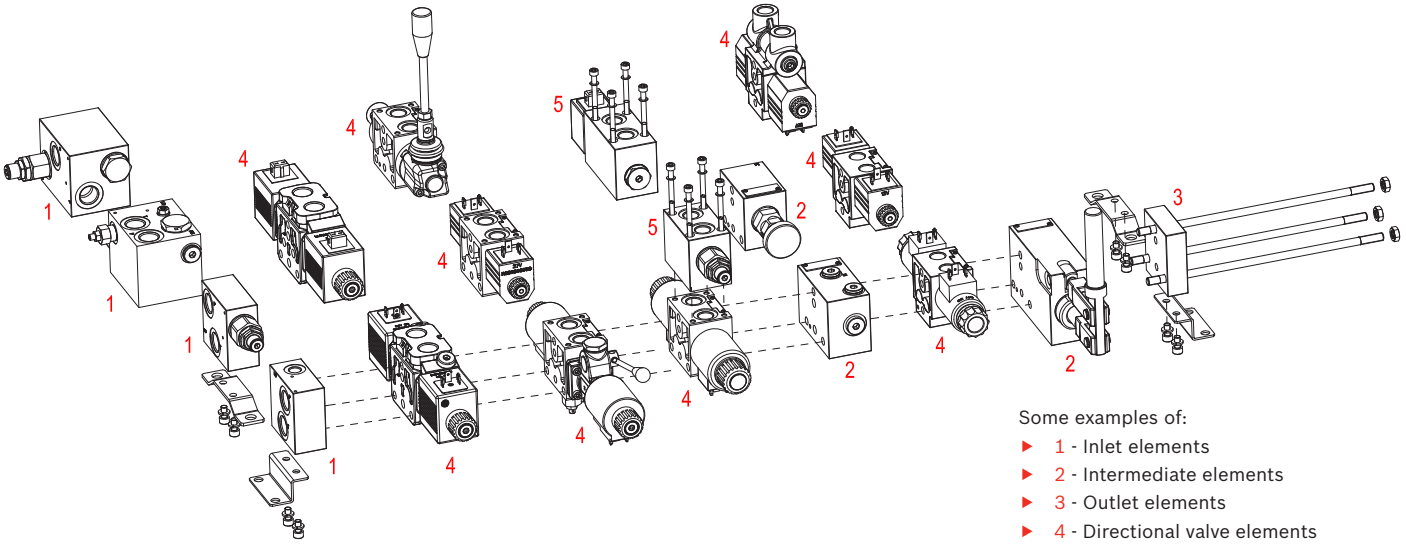
EDM-VB Data sheet 18301-43

Flangeable element with cross piloted counterbalance valves



Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	40 l/min 11 gpm
Port connections	G 3/8-SAE6
Material	Aluminum

Variable displacement pump - single movements (On-Off / Proportional)



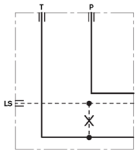
Some examples of:

- 1 - Inlet elements
- 2 - Intermediate elements
- 3 - Outlet elements
- 4 - Directional valve elements
- 5 - Flangeable elements

1 - Inlet elements

TE-03 Data sheet 18300-03

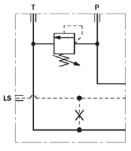
Inlet element with LS connection



Technical Data	
Max pressure for aluminum version	250 bar 3600 psi
Max pressure for cast iron version	310 bar 4500 psi
Max inlet flow	50 l/min 13 gpm
Port connections	G 3/8-G1/2 SAE8

TE-04 Data sheet 18300-04

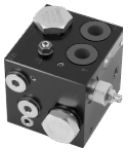
Inlet element with primary pressure relief valve and with LS connection

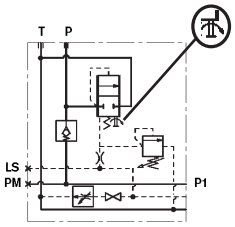


Technical Data	
Max pressure	250 bar 3600 psi
Max inlet flow	50 l/min 13 gpm
Port connections	G 3/8-G1/2 SAE8
Material	Aluminum

TE-06 (*) Data sheet 18300-06

Inlet element with limitation of primary pressure in the system and LS controlled unloading of excess flow



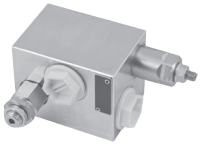


Technical Data	
Max pressure	250 bar 3600 psi
Max inlet flow	up to 90 l/min 24 gpm
Rated flow at P1	40 l/min 11 gpm
Max rated flow through LS drain	0,7 l/min 0,2 gpm
Material	Aluminum
Port connections	G 3/8-G1/2

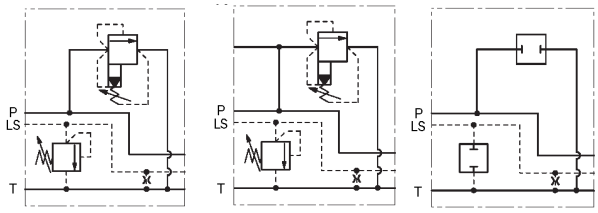
(*) *Version with mechanical blocking only*

TE-16 Data sheet 18300-14

Inlet element with LS connection and double pressure relief valve (P and LS line)



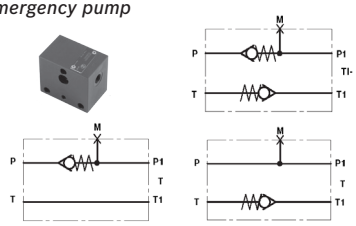
Technical Data	
Max pressure	310 bar 4500 psi
Max inlet flow	120 l/min 32 gpm
Material	Cast iron
Port connections	G1/2-G3/4-SAE10



2 - Intermediate elements

TI-00 Data sheet 18301-25

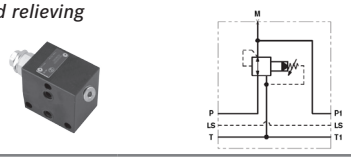
Intermediate element with check valves for emergency pump



Technical Data	
Max pressure	250 bar 3600 psi
Max inlet flow	50 l/min 13 gpm
Material	Aluminum

TI-03 Data sheet 18301-26

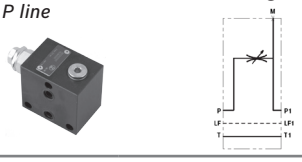
Intermediate element with pressure reducer and relieving



Technical Data	
Max pressure	250 bar 3600 psi
Max inlet flow	50 l/min 13 gpm
Material	Aluminum

TI-04 Data sheet 18301-27

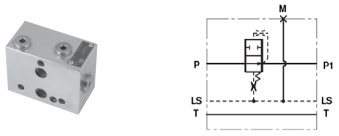
Intermediate element with flow regulator on P line



Technical Data	
Max pressure	250 bar 3600 psi
Max inlet flow	50 l/min 13 gpm
Material	Aluminum

TI-C2 Data sheet 18301-28

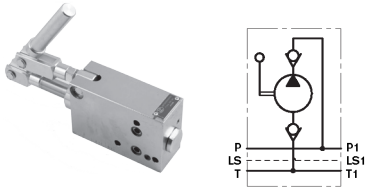
Intermediate element with 2 way compensator, and with LS connection



Technical Data	
Max pressure	310 bar 4500 psi
Max inlet flow	30 l/min 8 gpm
Material	Cast iron

EPM-DE-18 Data sheet 18301-30

Intermediate element with double acting hand pump

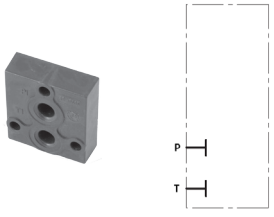


Technical Data	
Max resistance pressure	310 bar 4500 psi
Max generated pressure	250 bar 3600 psi
Total diplacement	18 cc 1 in³
Opening displacement	8.5 cc 0.5 in³
Closing displacement	9.5 cc 0.6 in³
Material	Cast iron

3 - Outlet elements

TC-00 Data sheet 18301-60

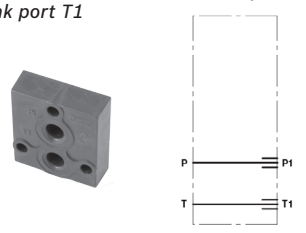
End element basic



Technical Data	
Max pressure for aluminum version	250 bar 3600 psi
Max pressure for cast iron version	310 bar 4500 psi

TC-03 Data sheet 18301-63

Outlet element with additional inlet port P1 and tank port T1

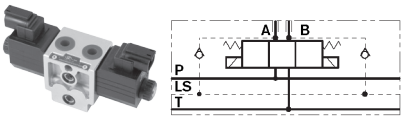


Technical Data	
Max pressure for aluminum version	250 bar 3600 psi
Max pressure for cast iron version	310 bar 4500 psi
Max flow in P and T	50 l/min 13 gpm
Port connections	G 3/8-G1/2

4 - Directional valve elements - On-Off

EDBZ — Data sheet 18300-52

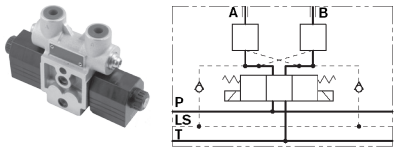
4/3-4/2 directional valve element with or without secondary relief valve and with or without LS connection



Technical Data	
Size	4
Max operating pressure	310 bar 4500 psi
Max flow	25 l/min 7 gpm
Port connections	G 3/8 SAE6 M16x1.5
Electrical connection	EN 175301-803, AMJ, DT04-2P

EDBZ-VR — Data sheet 18300-53

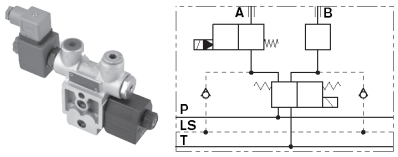
4/3 directional valve element with or without secondary relief valves, with or without LS connection, and PO check valves



Technical Data	
Size	4
Max operating pressure	250 bar 3600 psi
Max flow	20 l/min 5 gpm
Port connections	G 3/8 SAE6 M16x1.5
Electrical connection	EN 175301-803, AMJ, DT04-2P

EDBZ-VEI — Data sheet 18300-54

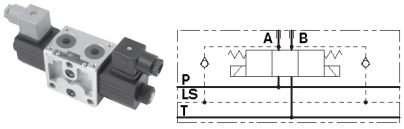
4/2 directional valve element with or without secondary relief valve, with or without LS connection and with 2/2 solenoid cartridge valve



Technical Data	
Size	4
Max operating pressure	310 bar 4500 psi
Max flow	25 l/min 7 gpm
Port connections	G 3/8 SAE6 M16x1.5
Electrical connection	EN 175301-803, AMJ, DT04-2P

ED1-Z — Data sheet 18301-01

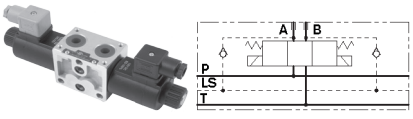
4/3-4/2 directional valve element with or without secondary relief valves, with or without LS connection



Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	30 l/min 8 gpm
Port connections	G 3/8 SAE6
Electrical connection	EN 175301-803, AMJ, DT04-2P

ED2-DZ — Data sheet 18301-02

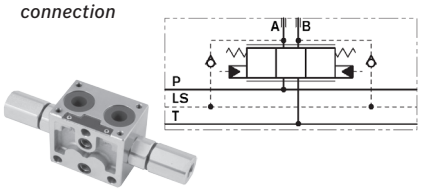
4/3-4/2 directional valve element with or without secondary relief valves, with or without LS connection



Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8-SAE6 G 1/2-SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

ED-IP — Data sheet 18301-07

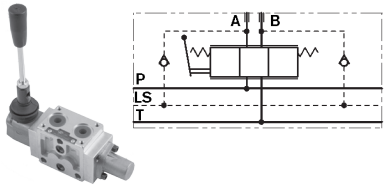
4/3 directional valve element with proportional hydraulic control and with or without LS connection



Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	45 l/min 12 gpm
Port connections	G 3/8-SAE6 G 1/2-SAE8

ED-LV — Data sheet 18301-08

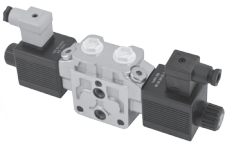
4/3 directional valve elements with manual lever operated control and with or without LS connections



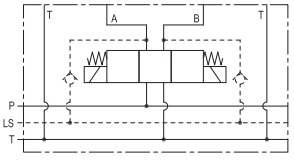
Technical Data	
Size	6
Series	00
Max operating pressure	310 bar 4500 psi
Max flow	60 l/min 16 gpm
Port connections	G 3/8- G 1/2-SAE8

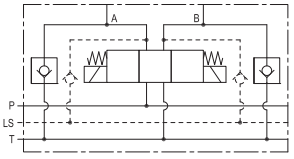
EDD-XZ — Data sheet 18301-12

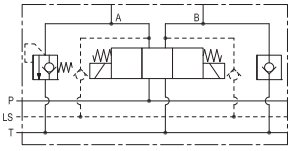
4/3-4/2 directional valve elements with or without secondary relief valves, and with or without LS connections

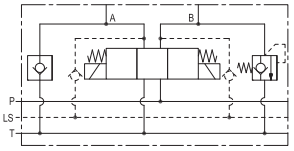


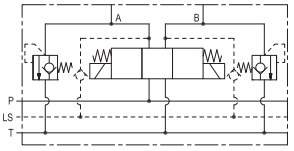
Technical Data	
Size	8
Max pressure (pump side)	310 bar 4500 psi
Max pressure (actuator side)	380 bar 5500 psi
Max flow	80 l/min 21 gpm
Port connections	G1/2-SAE10 Flangeable
Electrical connection	EN 175301-803, AMJ, DT04-2P







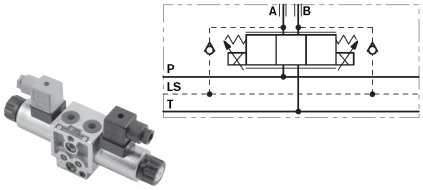




4 - Directional valve elements - Proportional

EDB-P Data sheet 18300-55

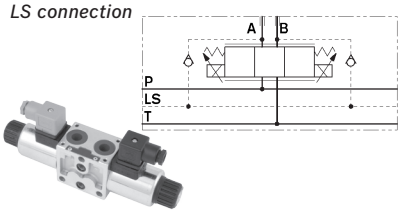
4/3-4/2 directional valve element with proportional control and with or without LS connection



Technical Data	
Size	4
Max operating pressure	310 bar 4500 psi
Max flow	17 l/min 5 gpm
Port connections	G 3/8 SAE6 M16x1.5
Electrical connection	EN 175301-803, AMJ

ED4-P Data sheet 18301-06

4/3-4/2 directional valve element with proportional control and with or without LS connection

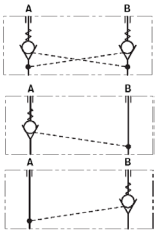


Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	30 l/min 8 gpm
Port connections	G 3/8-SAE6 G 1/2-SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

5 - Flangeable elements

EDM-VR Data sheet 18301-40

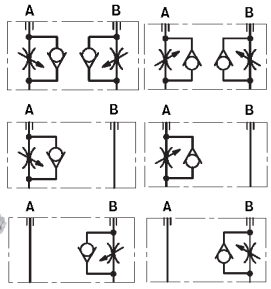
Flangeable element with single or double acting cross piloted check valves



Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8
Material	Aluminum

EDM-VF Data sheet 18301-42

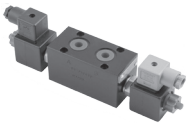
Flangeable element with unidirectional flow control for meter-in and meter-out

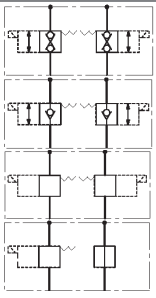


Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8
Material	Aluminum

EDM-VEI Data sheet 18301-44

Flangeable element with 2/2 solenoid cartridge valves

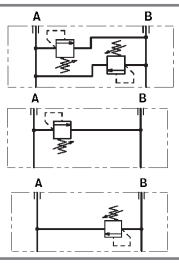




Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	40 l/min 11 gpm
Port connections	G 3/8
Electrical connection	EN 175301-803, AMJ, DT04-2P

EDM-VM Data sheet 18301-41

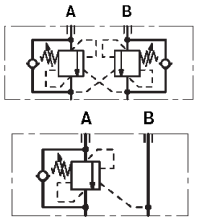
Flangeable element with single or double secondary pressure relief valve



Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8
Material	Aluminum

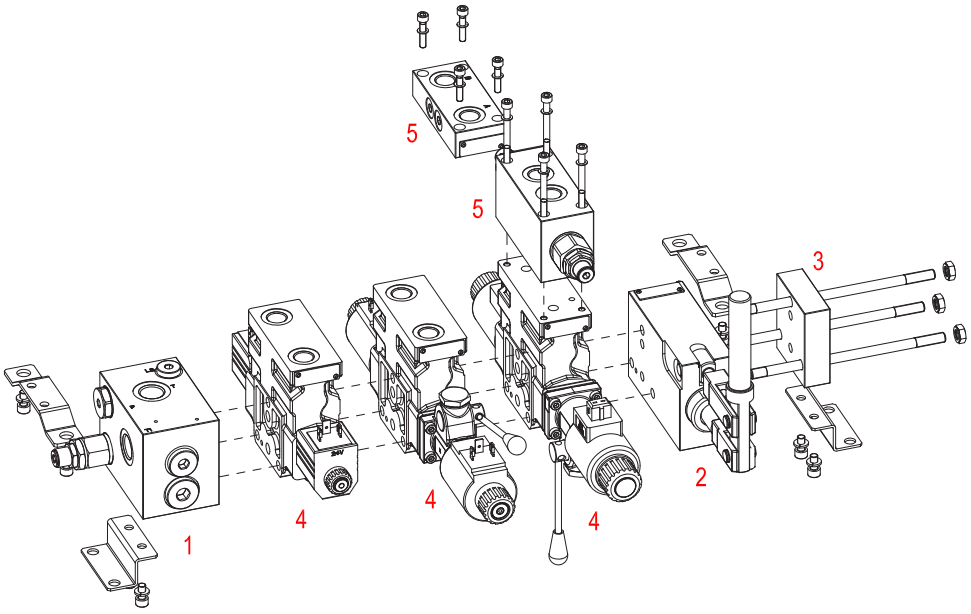
EDM-VB Data sheet 18301-43

Flangeable element with cross piloted counterbalance valves



Technical Data	
Size	6
Max pressure	250 bar 3600 psi
Max flow	40 l/min 11 gpm
Port connections	G 3/8-SAE6
Material	Aluminum

Fixed displacement pump - simultaneous movements (On-Off / Proportional)



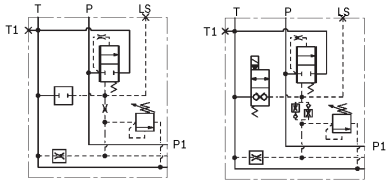
Some examples of:

- 1 - Inlet elements
- 2 - Intermediate elements
- 3 - Outlet elements
- 4 - Directional valve elements
- 5 - Flangeable elements

1 - Inlet elements

TE-13 Data sheet 18300-13

Inlet element with by-pass compensator, LS relief for open center control block and solenoid operated unloading

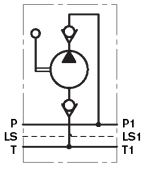


Technical Data	
Max pressure	310 bar 4500 psi
Max inlet flow	up to 120 l/min 32 gpm
Port connections	G 1/2-G3/4 SAE 10
Material	Cast iron

2 - Intermediate elements

EPM-DE-18 Data sheet 18301-30

Intermediate element with double acting hand pump

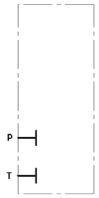


Technical Data	
Max resistance pressure	310 bar 4500 psi
Max generated pressure	250 bar 3600 psi
Total diplacement	18 cc 1 in³
Opening displacement	8.5 cc 0.5 in³
Closing displacement	9.5 cc 0.6 in³
Material	Cast iron

3 - Outlet elements

TC-00 Data sheet 18301-60

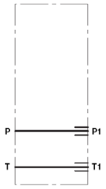
End element basic



Technical Data	
Max pressure for aluminum version	250 bar 3600 psi
Max pressure for cast iron version	310 bar 4500 psi

TC-03 Data sheet 18301-63

Outlet element with additional inlet port P1 and tank port T1

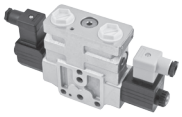
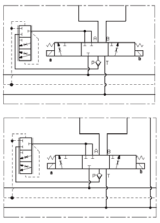


Technical Data	
Max pressure for aluminum version	250 bar 3600 psi
Max pressure for cast iron version	310 bar 4500 psi
Max flow in P and T	50 l/min 13 gpm
Port connections	G 3/8-G1/2

4 - Directional valve elements - On-Off

EDC-Z Data sheet 18301-10

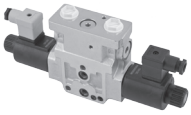
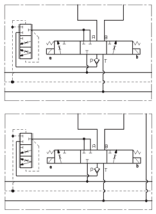
4/3-4/2 on-off directional valve element with flow sharing control (LUDV concept)
PATENT PROTECTED

Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	up to 26 l/min 7 gpm
Port connections	G 3/8 SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

EDC-DZ Data sheet 18301-11

4/3-4/2 on-off directional valve element with flow sharing control (LUDV concept)

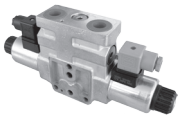
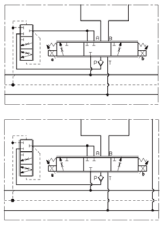



Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	up to 54 l/min 14 gpm
Port connections	G 1/2 SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

4 - Directional valve elements Proportional

EDC-P Data sheet 18301-09

4/3-4/2 proportional directional valve element with flow sharing control (LUDV concept)
PATENT PROTECTED

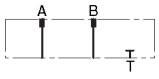



Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	up to 58 l/min 15 gpm
Port connections	G 3/8-G1/2 SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

5 - Flangeable elements

EDCMF Data sheet 18301-48

Flangeable elements with different type of ports

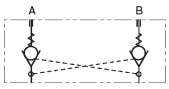
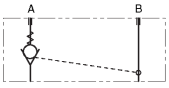
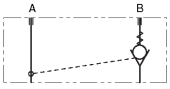


Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	60 l/min 16 gpm
Port connections	G 3/8-G1/2-M18x1.5 M22x1.5 JIS SAE8-SAE10
Material	Cast iron

5 - Flangeable elements

EDCM/EDCMF-VR Data sheet 18301-46

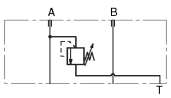
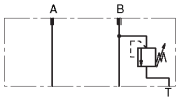
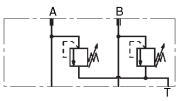
Flangeable element with single or double acting cross piloted check valves

Technical Data	
Size	6
Max pressure	310 bar 4500 psi
Max flow	70 l/min 19 gpm
Port connections	G 3/8-G1/2 SAE8
Material	Cast iron

EDCM/EDCMF-VM5 Data sheet 18301-47

Flangeable element with single or double secondary pressure relief valves

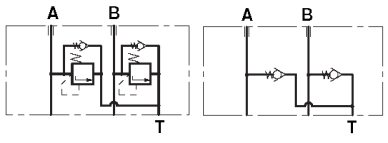
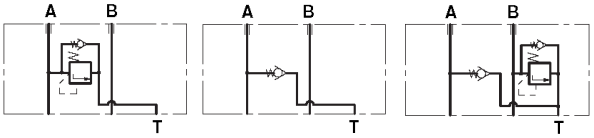
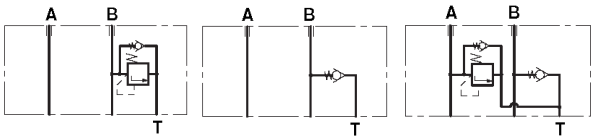





Technical Data	
Size	6
Max pressure	310 bar 4500 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8-G1/2
Material	Cast iron

5 - Flangeable elements

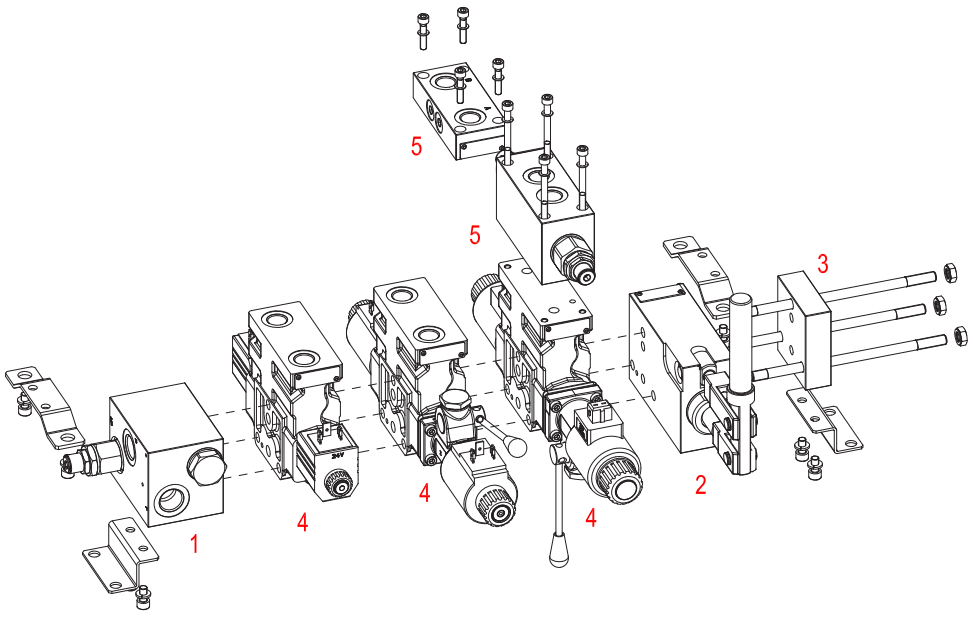
EDCM/EDCMF-VM Data sheet 18301-45

Flangeable element with single or double secondary pressure relief valves and anti-cavitation function

Technical Data	
Size	6
Max pressure	310 bar 4500 psi
Max flow	30 l/min 8 gpm
Port connections	G 3/8-G1/2 SAE8
Material	Cast iron

Variable displacement pump - simultaneous movements (On-Off / Proportional)



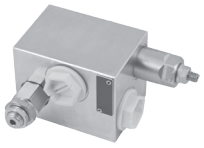
Some examples of:

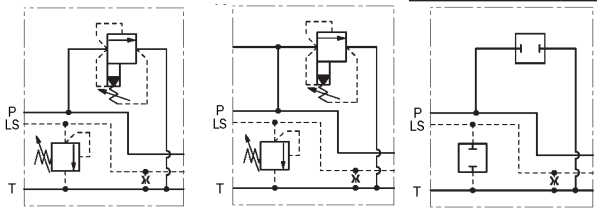
- 1 - Inlet elements
- 2 - Intermediate elements
- 3 - Outlet elements
- 4 - Directional valve elements
- 5 - Flangeable elements

1 - Inlet elements

TE-16 Data sheet 18300-14

Inlet element with LS connection and double pressure relief valve (P and LS line)



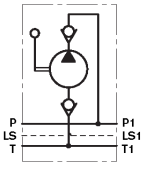


Technical Data	
Max pressure	310 bar 4500 psi
Max inlet flow	120 l/min 32 gpm
Material	Cast iron
Port connections	G1/2-G3/4-SAE10

2 - Intermediate elements

EPM-DE-18 Data sheet 18301-30

Intermediate element with double acting hand pump



Technical Data	
Max resistance pressure	310 bar 4500 psi
Max generated pressure	250 bar 3600 psi
Total diplacement	18 cc 1 in³
Opening displacement	8.5 cc 0.5 in³
Closing displacement	9.5 cc 0.6 in³
Material	Cast iron

3 - Outlet elements

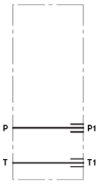
TC-00 Data sheet 18301-60

End element basic

Technical Data	
Max pressure for aluminum vers.	250 bar 3600 psi
Max pressure for cast iron vers.	310 bar 4500 psi

TC-03 Data sheet 18301-63

Outlet element with additional inlet port P1 and tank port T1

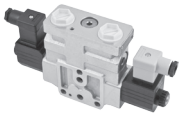


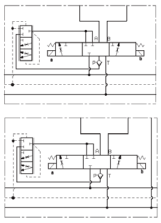
Technical Data	
Max pressure for aluminum vers.	250 bar 3600 psi
Max pressure for cast iron vers.	310 bar 4500 psi
Max flow in P and T	50 l/min 13 gpm
Port connections	G 3/8-G1/2

4 - Directional valve elements - On-Off

EDC-Z Data sheet 18301-10

4/3-4/2 on-off directional valve element with flow sharing control (LUDV concept)
PATENT PROTECTED

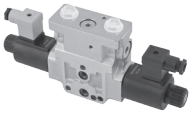


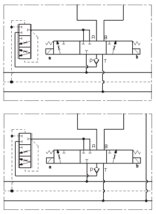


Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	up to 26 l/min 7 gpm
Port connections	G 3/8 SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

EDC-DZ Data sheet 18301-11

4/3-4/2 on-off directional valve element with flow sharing control (LUDV concept)



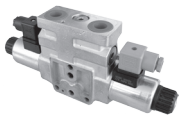


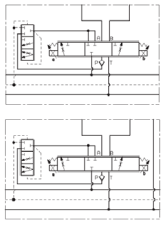
Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	up to 54 l/min 14 gpm
Port connections	G 1/2 SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

4 - Directional valve elements Proportional

EDC-P Data sheet 18301-09

4/3-4/2 proportional directional valve element with flow sharing control (LUDV concept)
PATENT PROTECTED



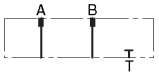


Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	up to 58 l/min 15 gpm
Port connections	G 3/8-G1/2 SAE8
Electrical connection	EN 175301-803, AMJ, DT04-2P

5 - Flangeable elements

EDCMF Data sheet 18301-48

Flangeable elements with different type of ports

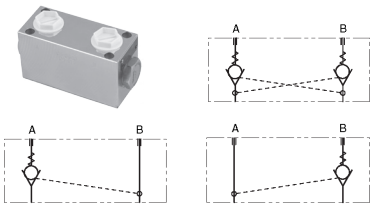


Technical Data	
Size	6
Max operating pressure	310 bar 4500 psi
Max flow	60 l/min 16 gpm
Port connections	G 3/8-G1/2-M18x1.5 M22x1.5 JIS SAE8-SAE10
Material	Cast iron

5 - Flangeable elements

EDCM/EDCMF-VR Data sheet 18301-46

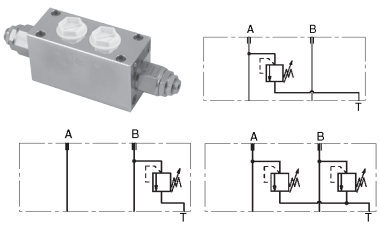
Flangeable element with single or double acting cross piloted check valves



Technical Data	
Size	6
Max pressure	310 bar 4500 psi
Max flow	70 l/min 19 gpm
Port connections	G 3/8-G1/2 SAE8
Material	Cast iron

EDCM/EDCMF-VM5 Data sheet 18301-47

Flangeable element with single or double secondary pressure relief valves

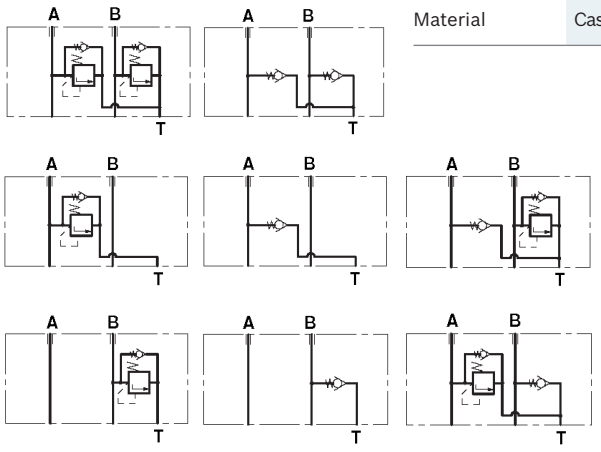


Technical Data	
Size	6
Max pressure	310 bar 4500 psi
Max flow	50 l/min 13 gpm
Port connections	G 3/8-G1/2
Material	Cast iron

5 - Flangeable elements

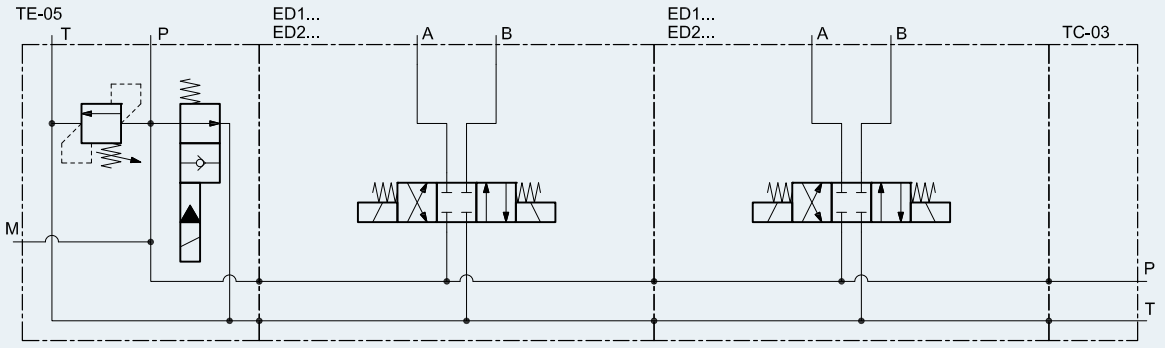
EDCM/EDCMF-VM Data sheet 18301-45

Flangeable element with single or double secondary pressure relief valves and anti-cavitation function



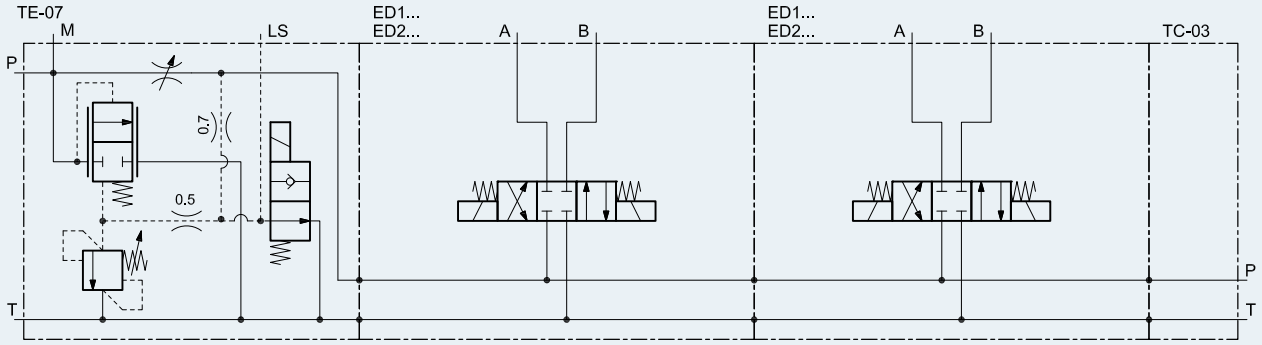
Technical Data	
Size	6
Max pressure	310 bar 4500 psi
Max flow	30 l/min 8 gpm
Port connections	G 3/8-G1/2 SAE8
Material	Cast iron

Fixed displacement pump - single movements



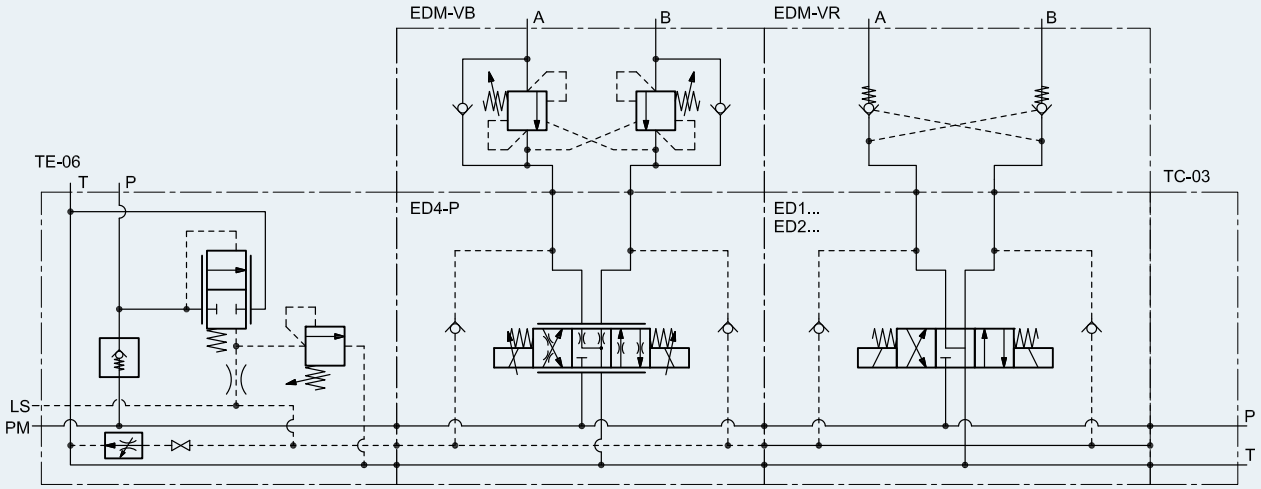
Suitable for:

Fixed displacement pump (high flow) - single movements



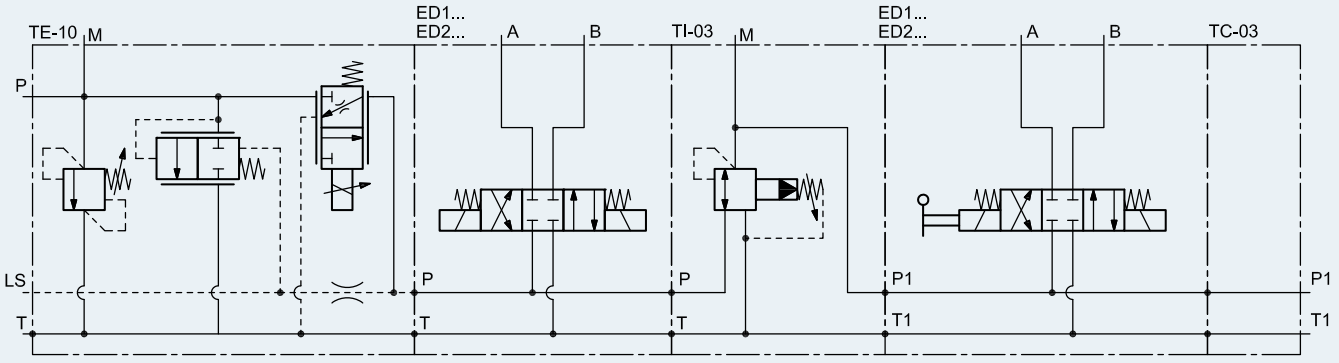
Suitable for:

Fixed displacement pump - single movements (on-off / Proportional)

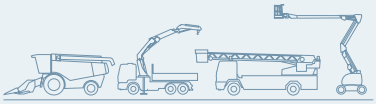


Suitable for:

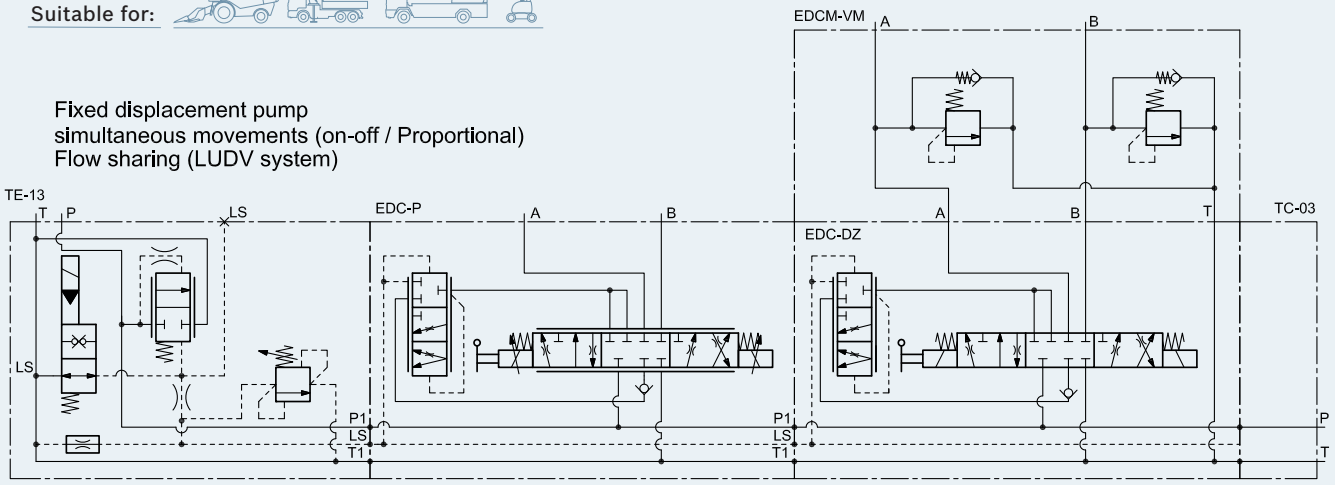
Fixed displacement pump - single movements (on-off / Proportional) compensated inlet



Suitable for:

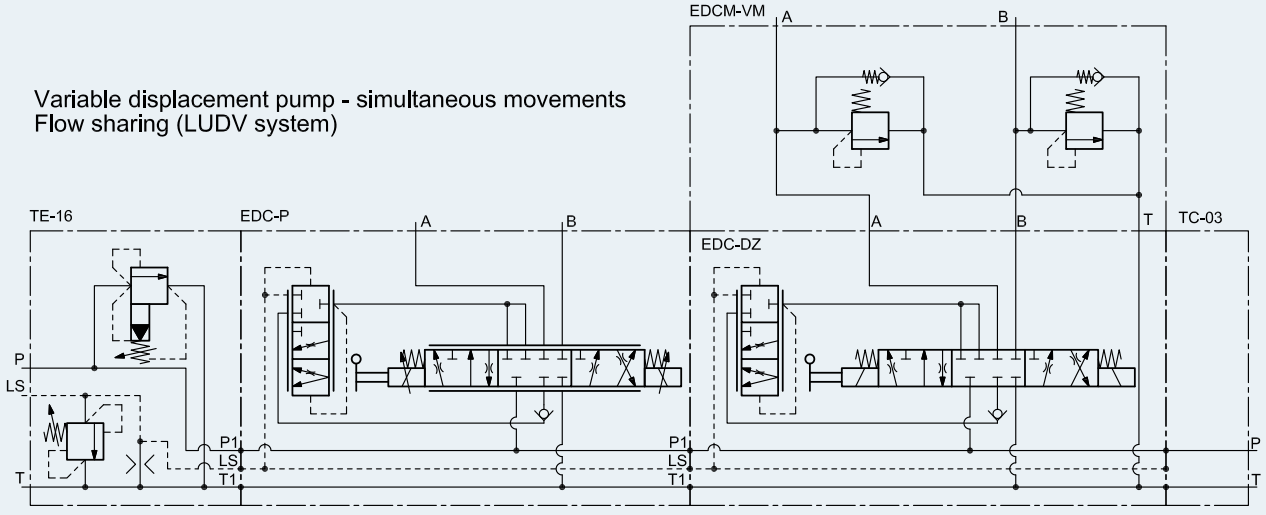


Fixed displacement pump simultaneous movements (on-off / Proportional) Flow sharing (LUDV system)

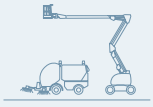


Suitable for:

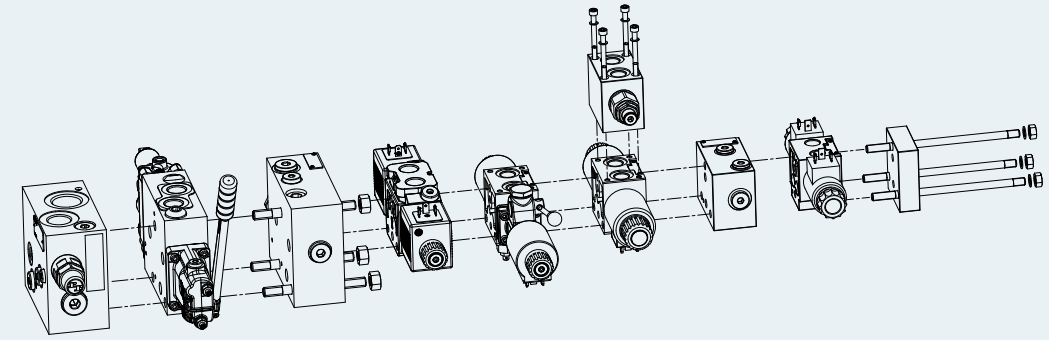
Variable displacement pump - simultaneous movements Flow sharing (LUDV system)

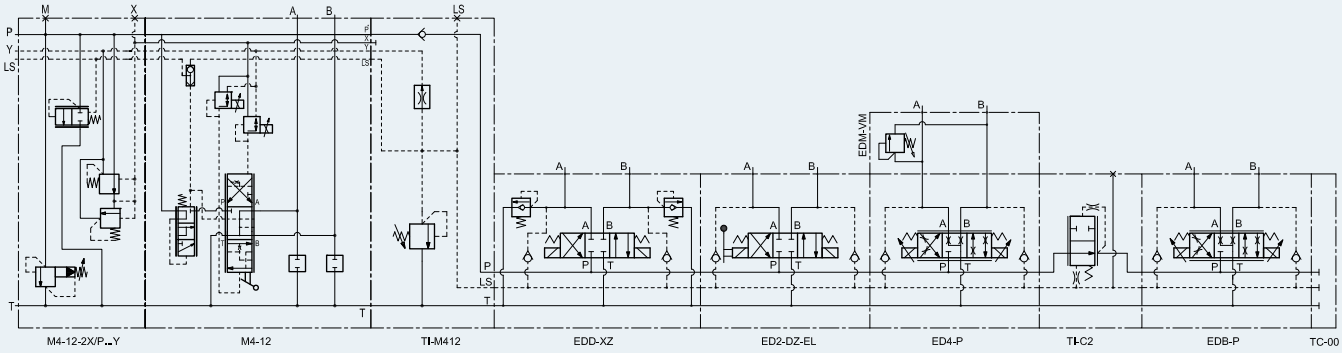


Suitable for:

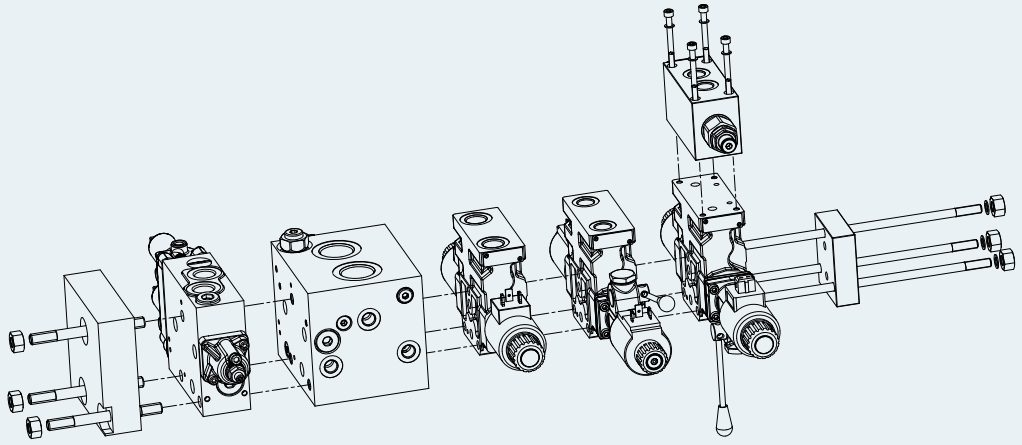


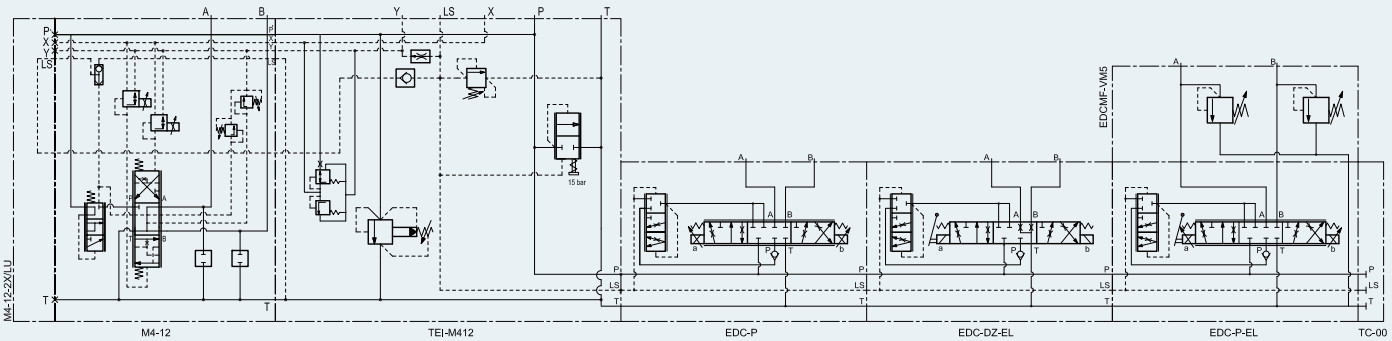
Fixed displacement pump single movements



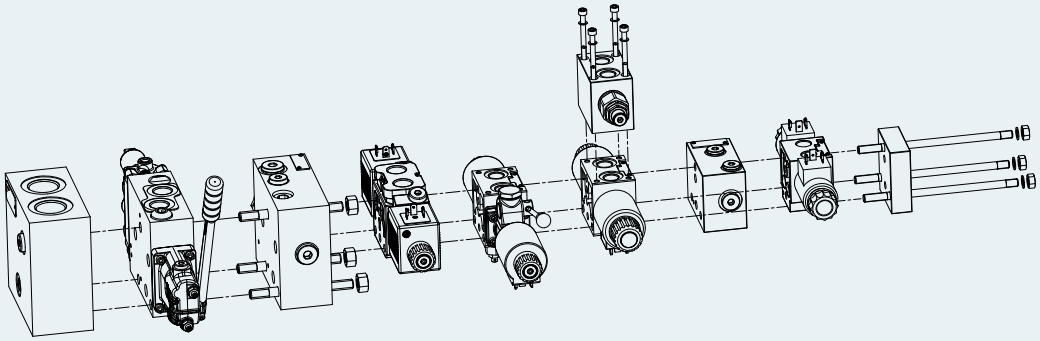


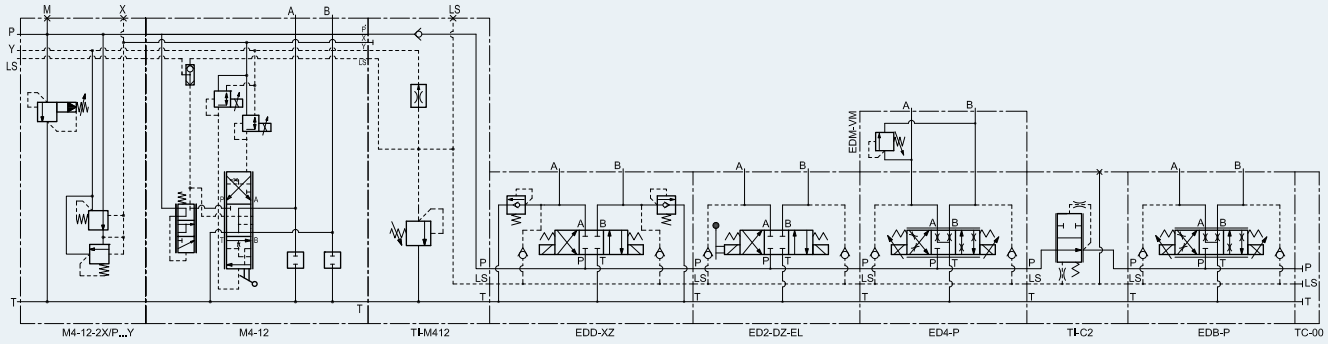
Fixed displacement pump simultaneous movements



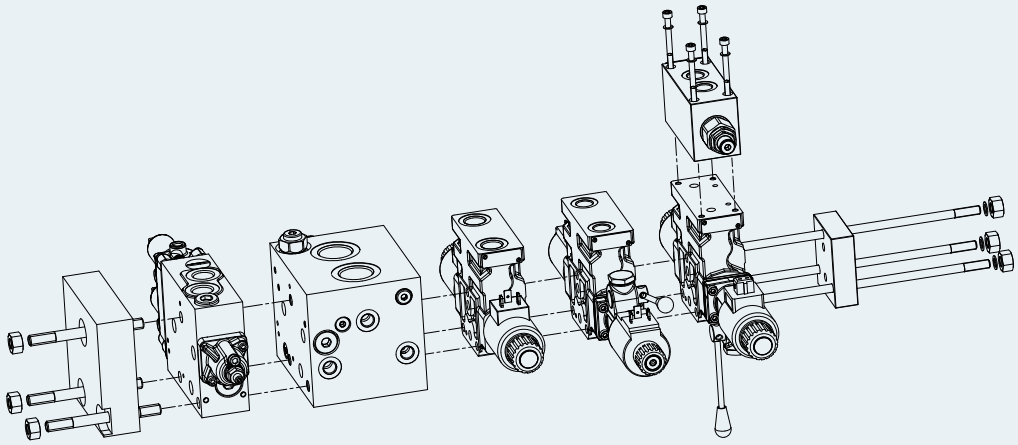


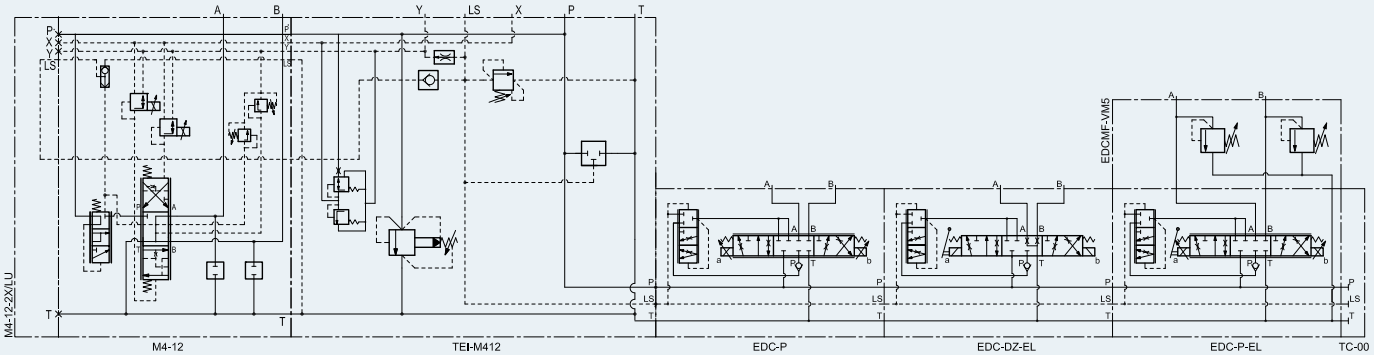
Variable displacement pump single movements





Variable displacement pump simultaneous movements





The Drive & Control Company

Rexroth
Bosch Group

Bosch Rexroth Oil Control S.p.A.
Via L. da Vinci, 5
I - 41015 Nonantola (MO), Italy
Tel +39 059 887 611
Fax +39 059 547 848
www.boschrexroth.com/compacthydraulics
compact-hydraulics-cdv@boschrexroth.com

RE 98353/12.2014

Printed in Italy