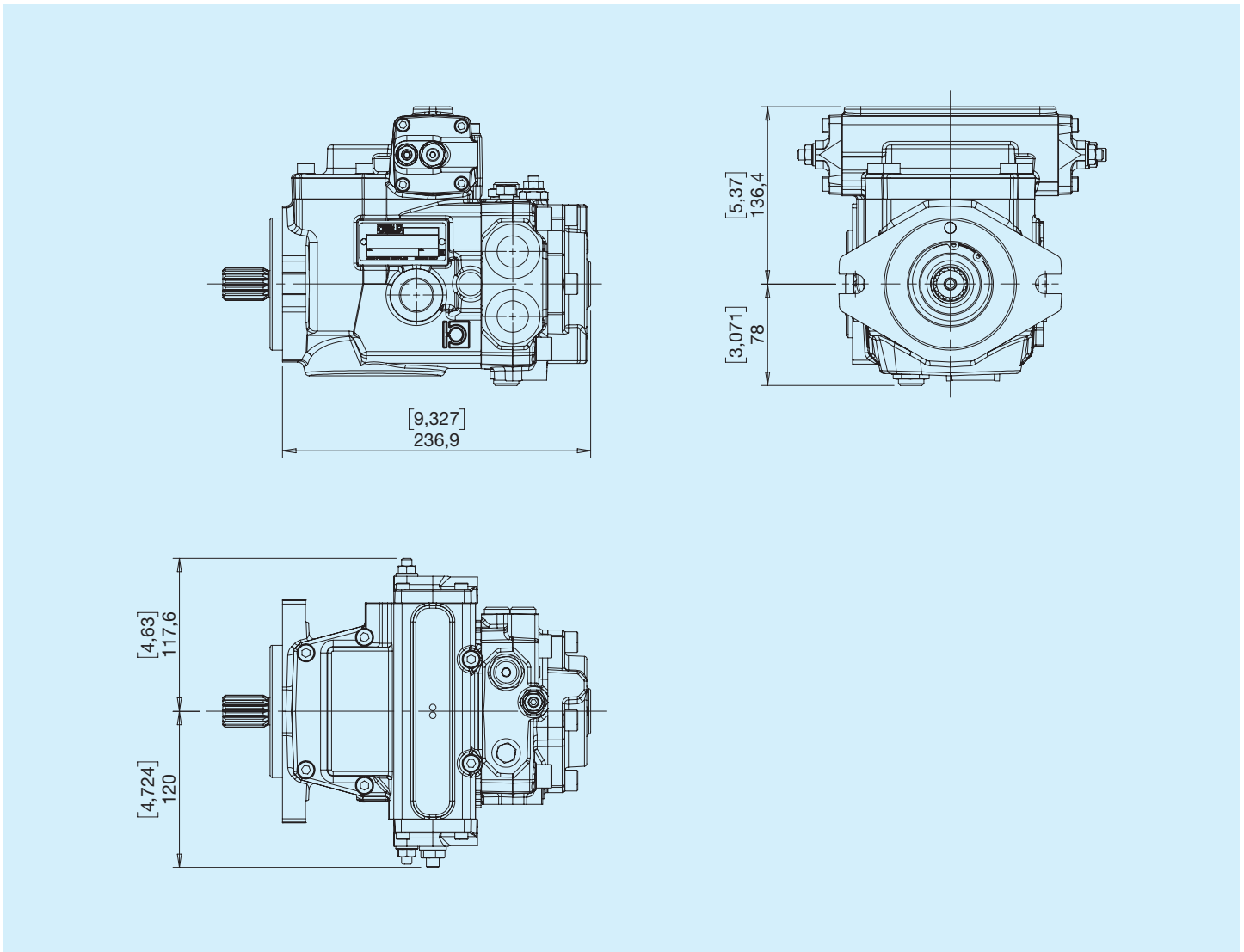


Before use, carefully read the GENERAL INSTRUCTIONS FOR USE OF CLOSED CIRCUIT AXIAL PISTON PUMPS AND MOTORS.

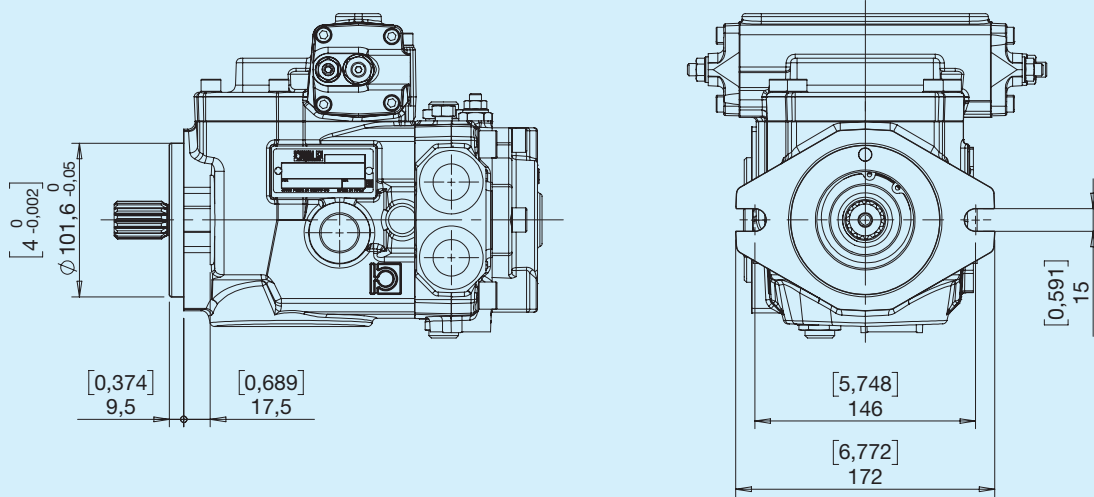


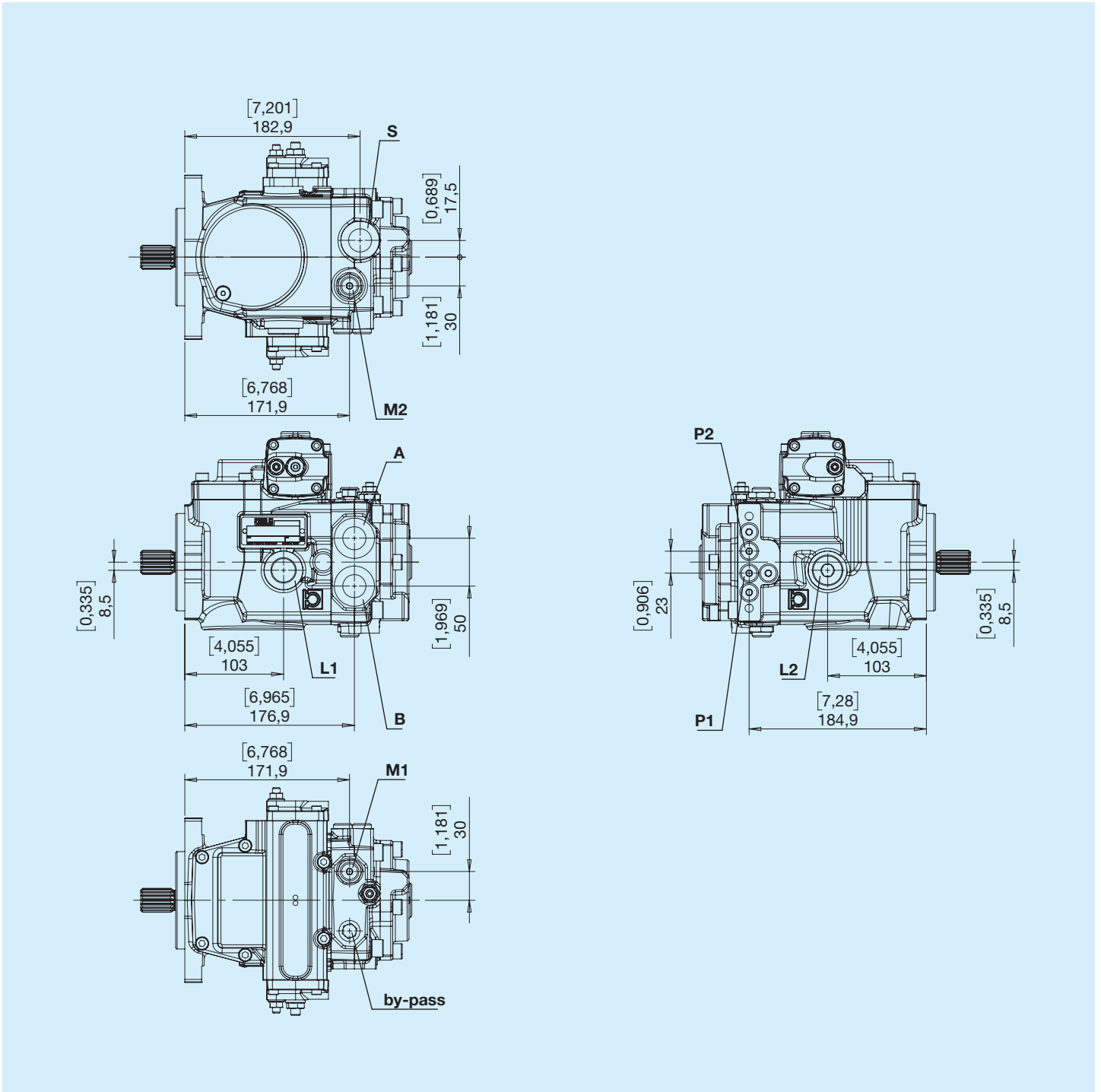
M4PV	Nominal displacement		Swash plate °	Continuous pressure		Intermittent pressure		Peak pressure		Rotational speed		Weight	
	cm ³	in ³		bar	psi	bar	psi	bar	psi	MAX min ⁻¹	MIN min ⁻¹	kg	lbs
34	34	2.08	18	300	4350	380	5075	400	5800	3800	500	25.0	55.0
46	46	2.81	19	300	4350	380	5075	400	5800	3800	500	25.0	55.0
50	50	3.05	18	300	4350	380	5075	400	5800	3800	500	25.0	55.0
58	58	3.54	18	250	3625	320	4640	400	5800	3600	500	26.5	58.3
65	65	3.97	18	250	3625	320	4640	400	5800	3600	500	28.9	63.6

Feed pump

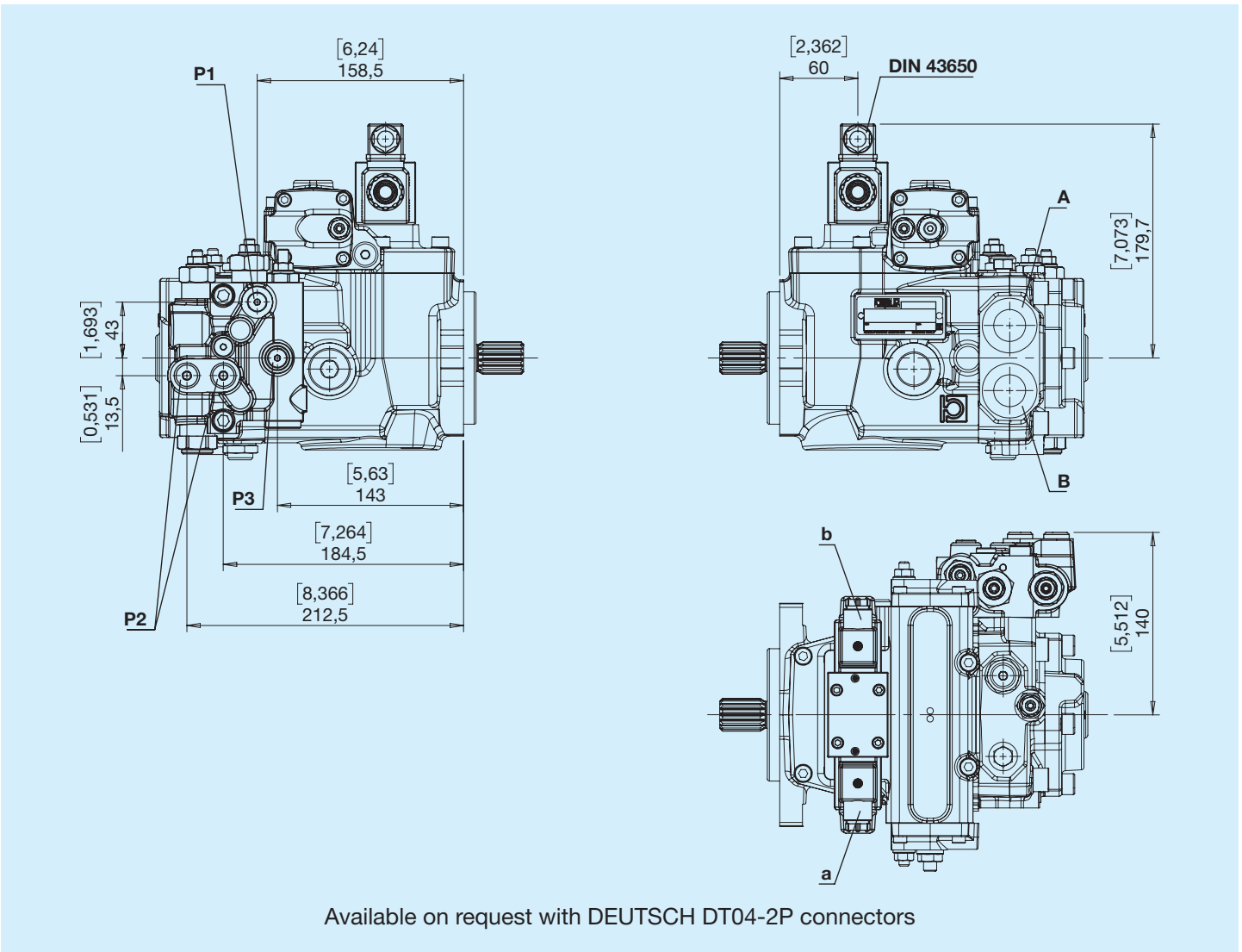
Type	Standard feed pump displacement		Pressure	
	cm ³	in ³	bar	psi
M4PV34	16	0.86	22	319
M4PV46	14	0.86	22	319
M4PV50	14	0.86	22	319
M4PV58	14	0.86	22	319
M4PV65	14	0.86	22	319

B SAE B





A Automotive

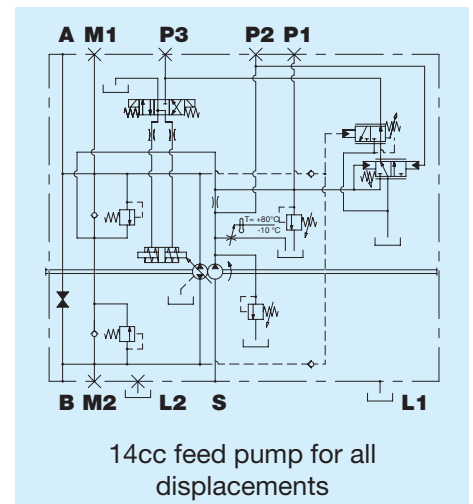


Outlet

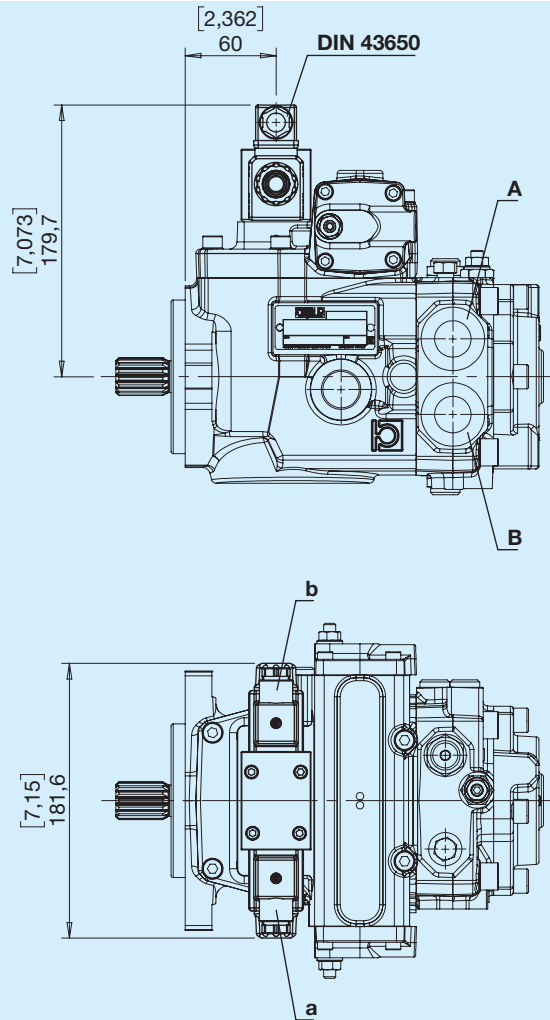
Rotation	Excited solenoid	Outlet
Right	a	B
Right	b	A
Left	a	A
Left	b	B

P1, P3 - Pressure intake G 1/8
P2 - Pressure intake G 1/4

Hydraulic diagram



E Electrical ON/OFF, closed centre 12V

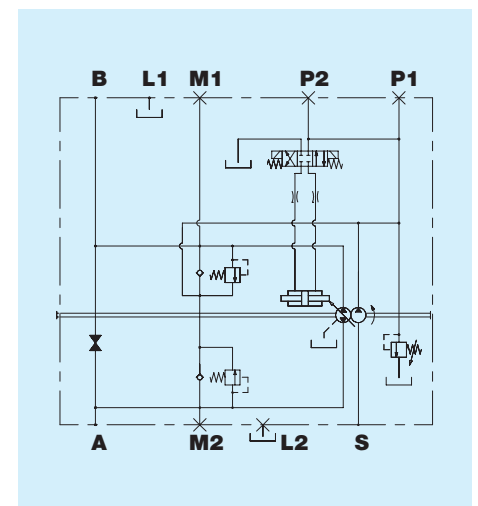


Available on request with DEUTSCH DT04-2P connectors

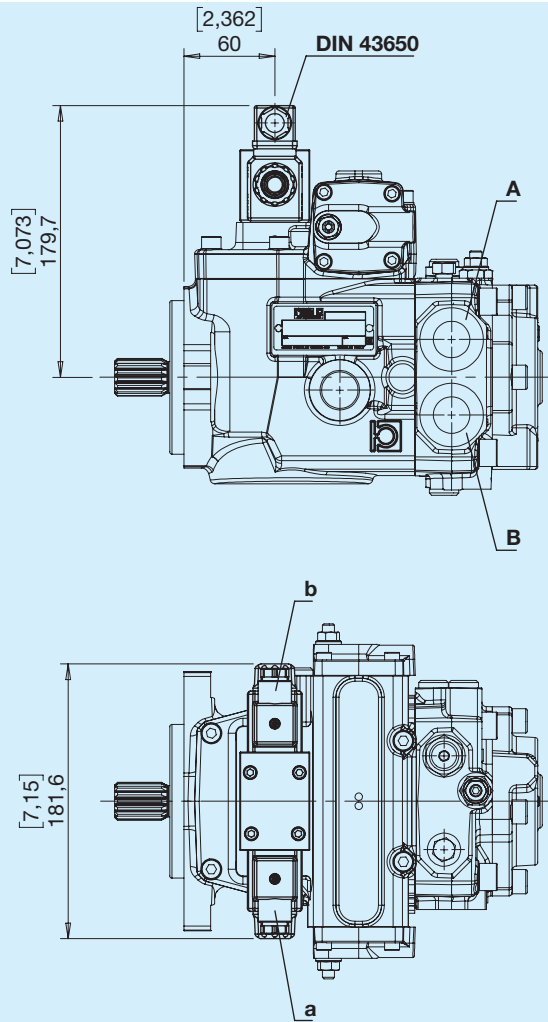
Outlet

Rotation	Excited solenoid	Outlet
Right	a	B
Right	b	A
Left	a	A
Left	b	B

Hydraulic diagram



F Electrical ON/OFF, closed centre 24V

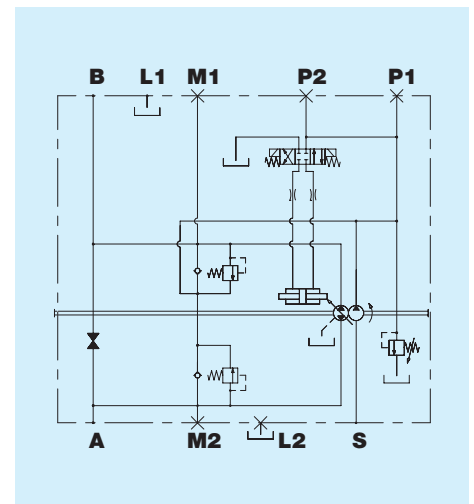


Available on request with DEUTSCH DT04-2P connectors

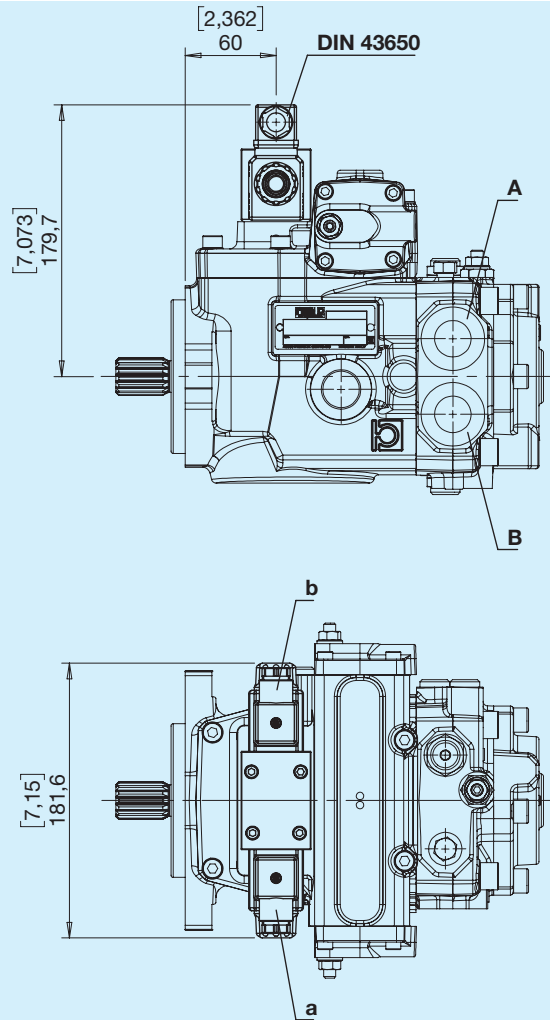
Outlet

Rotation	Excited solenoid	Outlet
Right	a	B
Right	b	A
Left	a	A
Left	b	B

Hydraulic diagram



N Electrical ON/OFF, open centre 12V

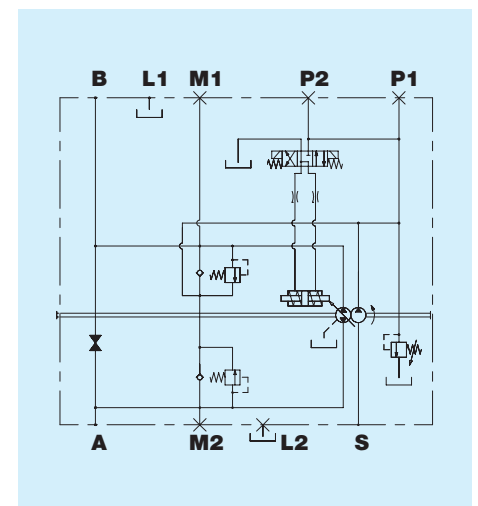


Available on request with DEUTSCH DT04-2P connectors

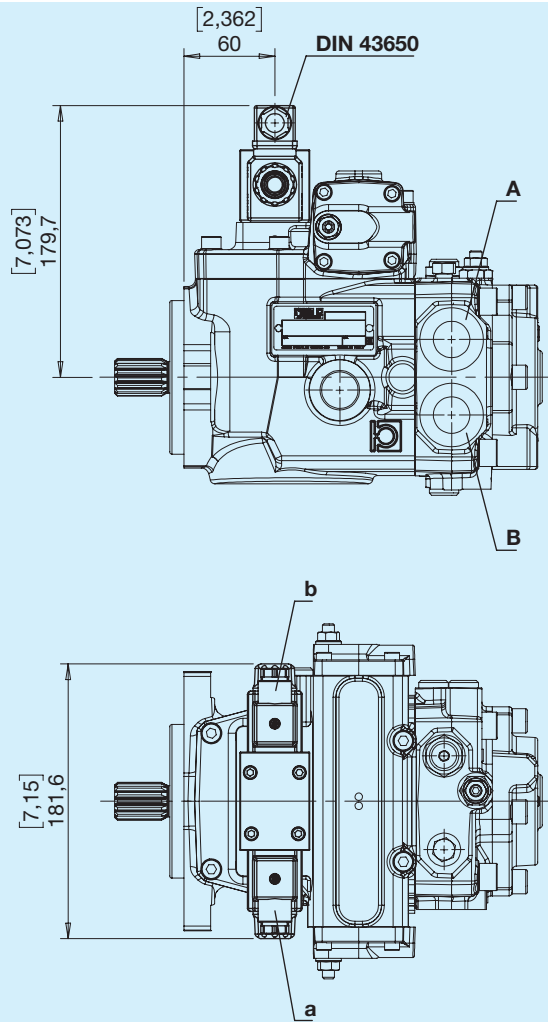
Outlet

Rotation	Excited solenoid	Outlet
Right	a	B
Right	b	A
Left	a	A
Left	b	B

Hydraulic diagram



Q Electrical ON/OFF, open centre 24V

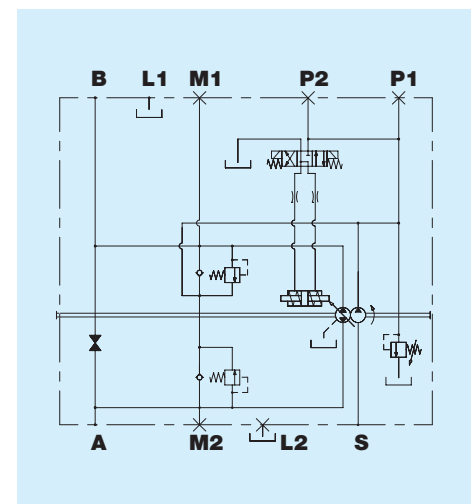


Available on request with DEUTSCH DT04-2P connectors

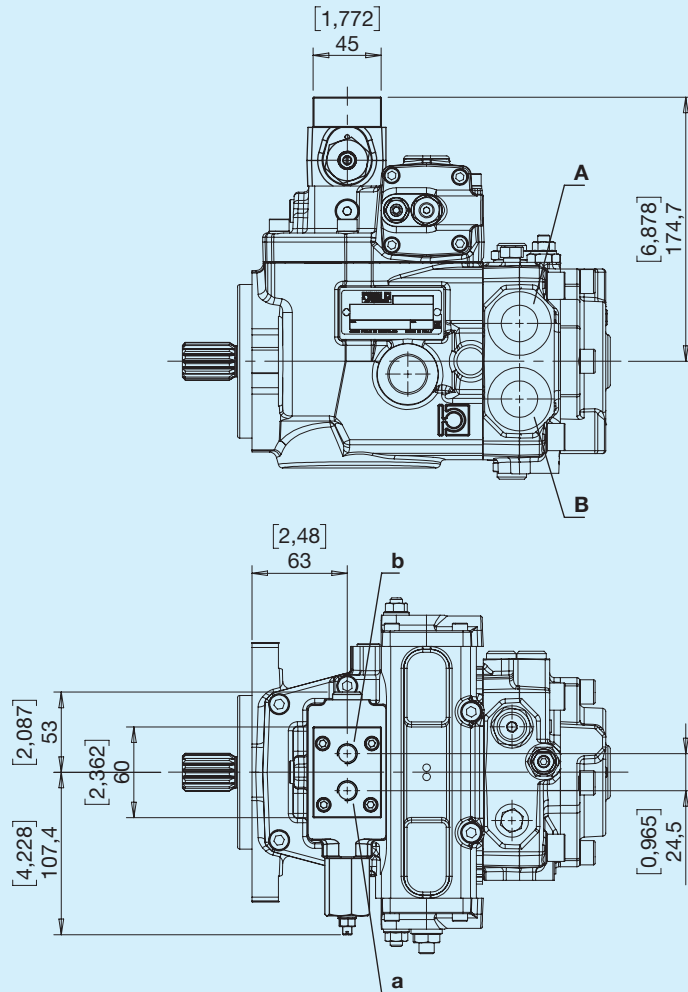
Outlet

Rotation	Excited solenoid	Outlet
Right	a	B
Right	b	A
Left	a	A
Left	b	B

Hydraulic diagram



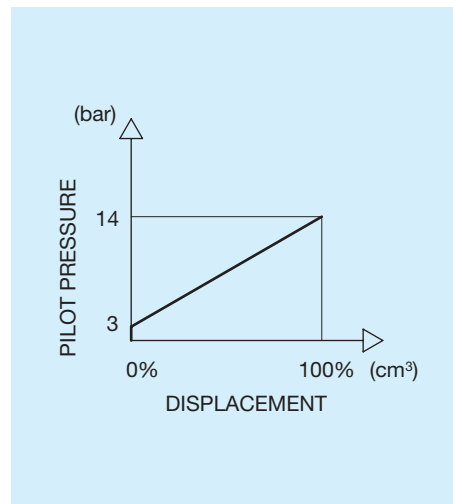
G Feedback hydraulic



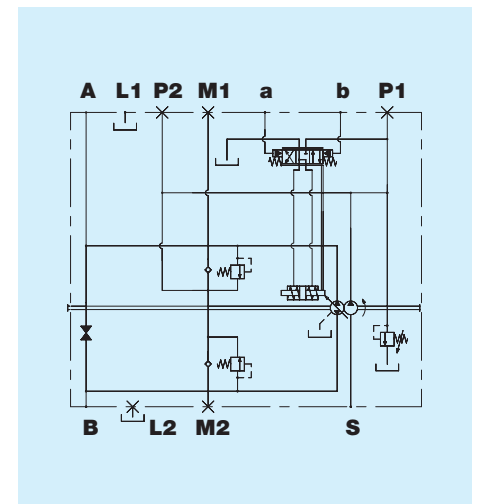
Outlet

Rotation	Pilot	Outlet
Right	a	B
Right	b	A
Left	a	A
Left	b	B

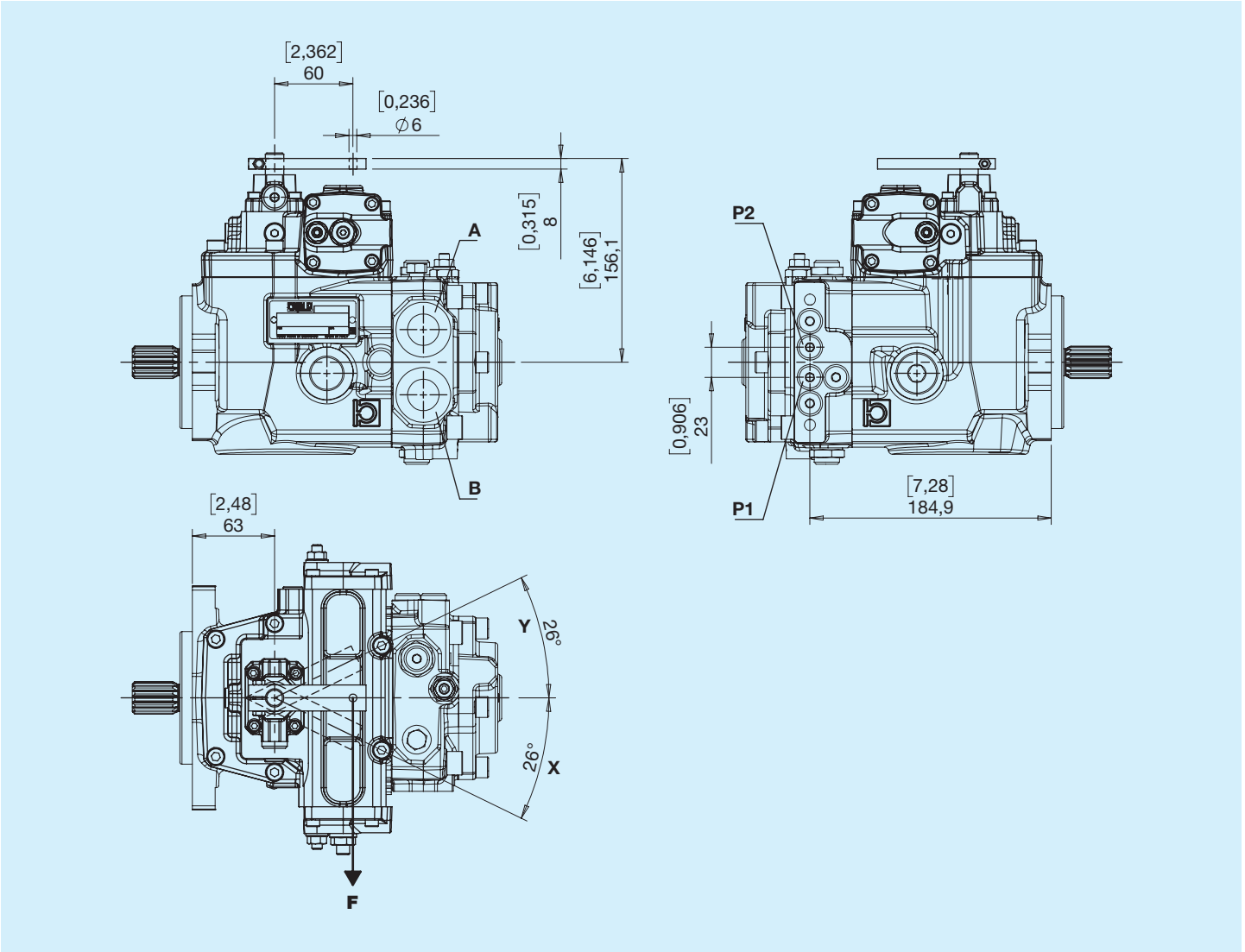
Pilot pressure



Hydraulic diagram



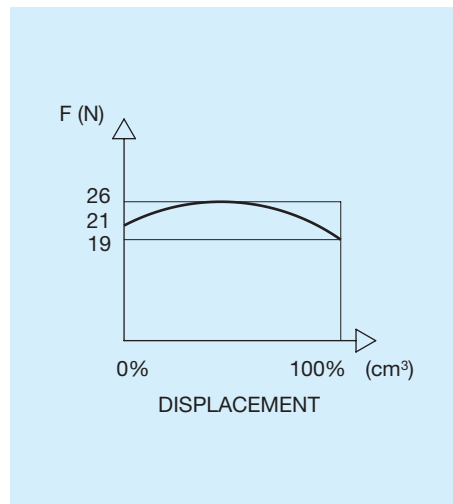
I Lever-operated hydraulic



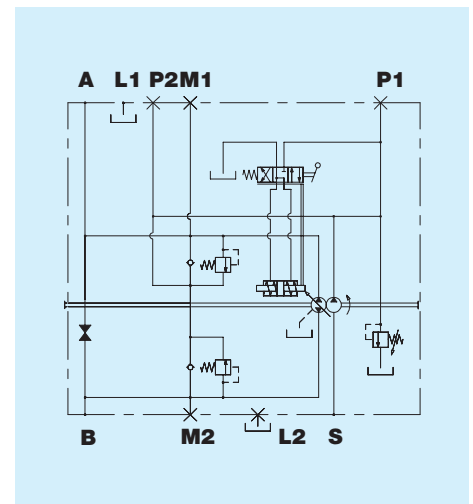
Outlet

Rotation	Control lever	Outlet
Right	Y	A
Right	X	B
Left	Y	B
Left	X	A

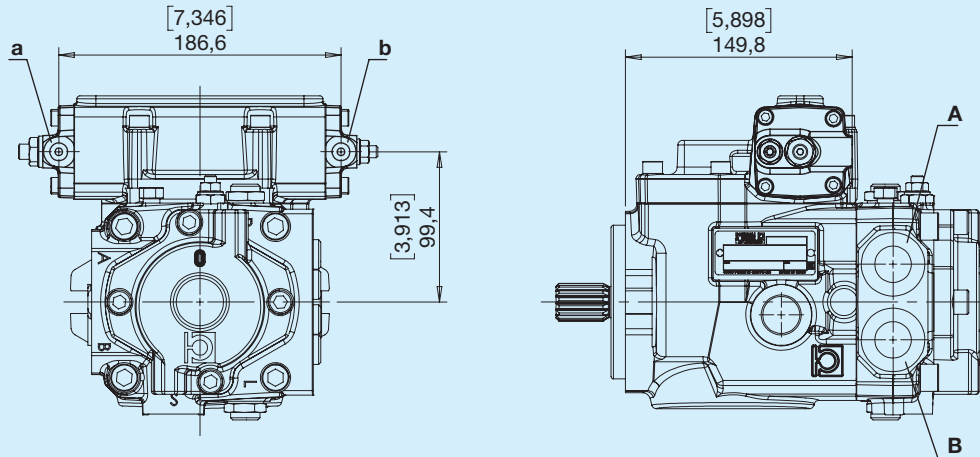
Pilot pressure



Hydraulic diagram



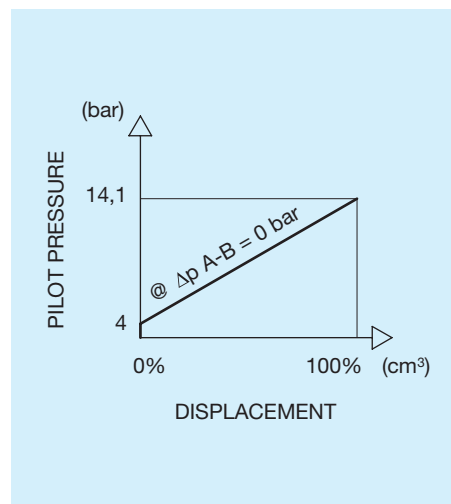
K Direct hydraulic



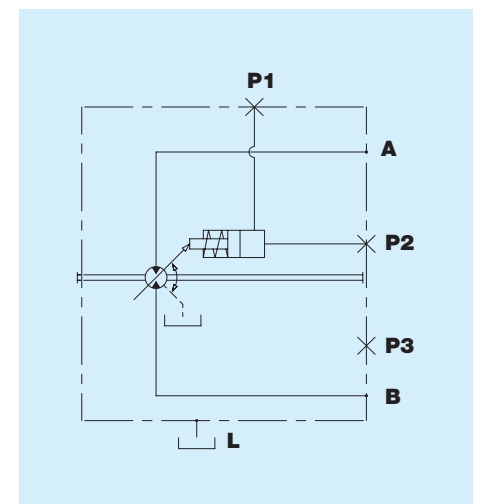
Outlet

Rotation	Pilot	Outlet
Right	a	A
Right	b	B
Left	a	B
Left	b	A

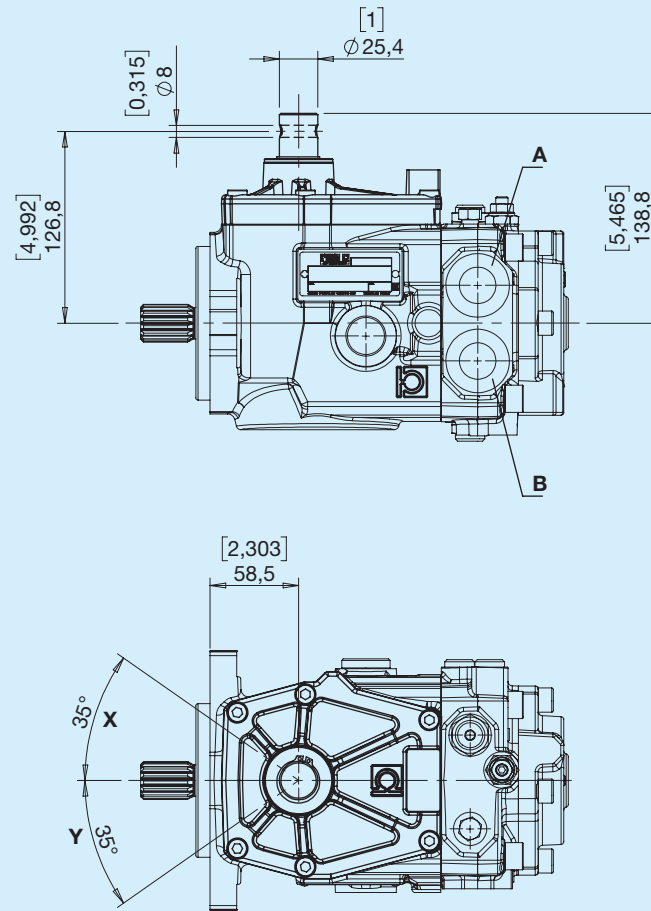
Pilot pressure



Hydraulic diagram



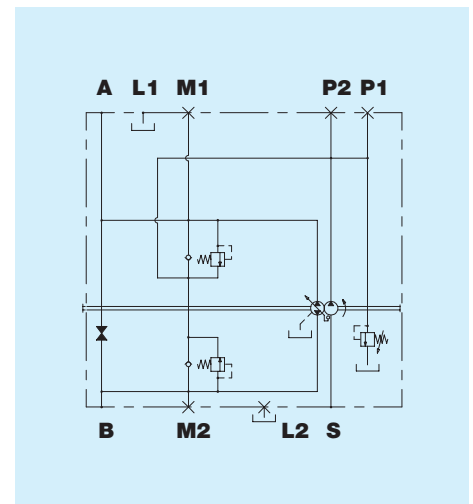
M Manual



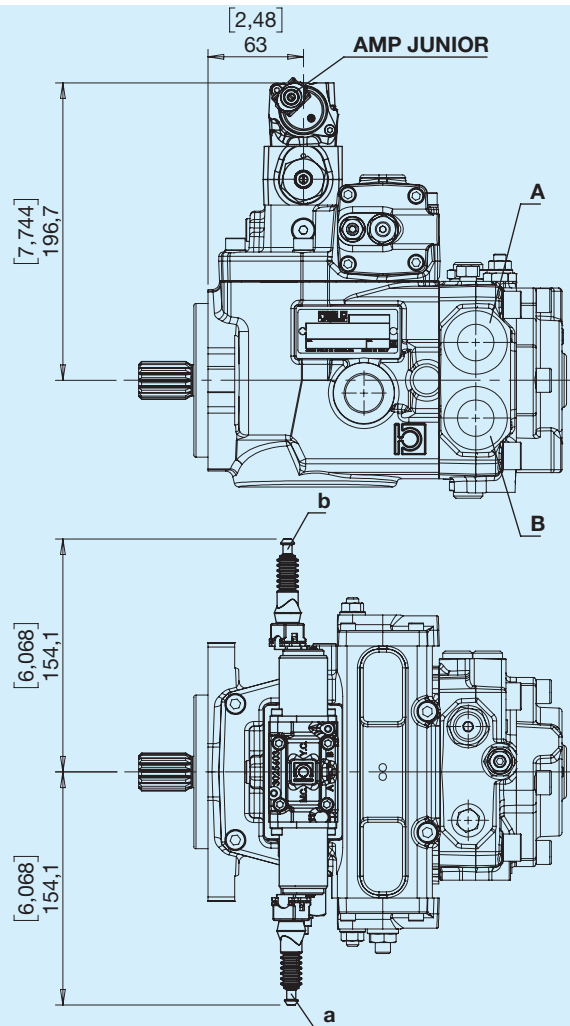
Outlet

Rotation	Control lever	Outlet
Right	Y	A
Right	X	B
Left	Y	B
Left	X	A

Hydraulic diagram



○ Electronic proportional feedback control 12V



Available on request with DEUTSCH DT04-2P connectors

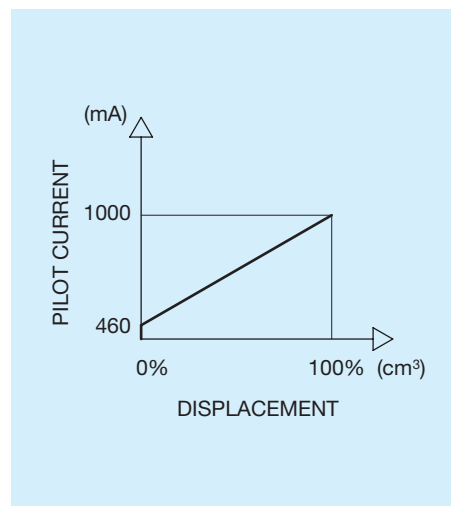
Outlet

Rotation	Excited solenoid	Outlet
Right	a	B
Right	b	A
Left	a	A
Left	b	B

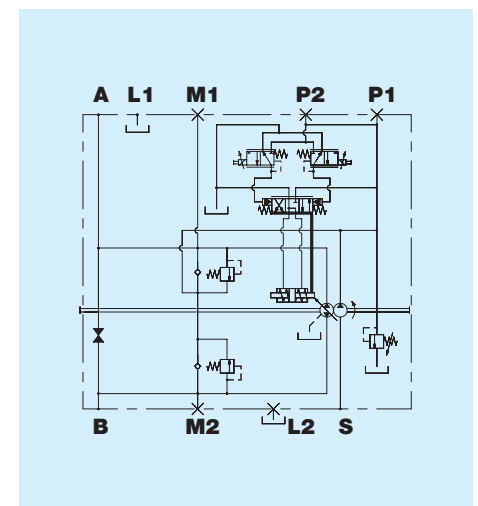
Control

Rated voltage	12	V
Min. current (I1)	300	mA
Max. current (I2)	1500	mA
PWM frequency	100	Hz

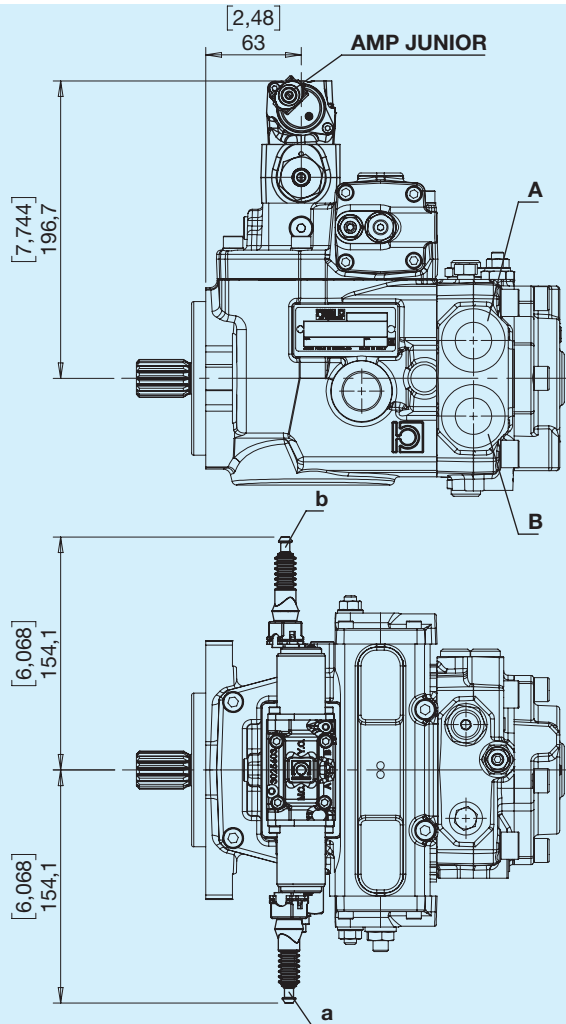
Pilot pressure



Hydraulic diagram



V Electronic proportional feedback control 24V



Available on request with DEUTSCH DT04-2P connectors

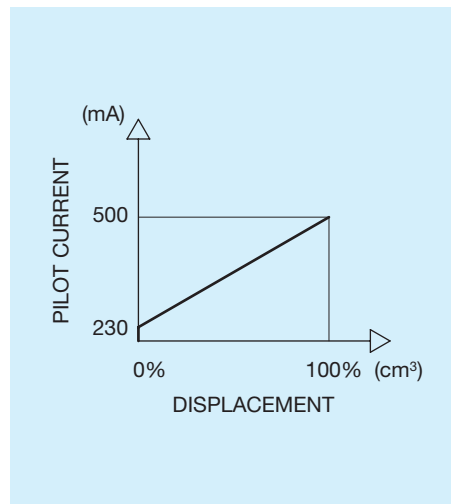
Outlet

Rotation	Excited solenoid	Outlet
Right	a	B
Right	b	A
Left	a	A
Left	b	B

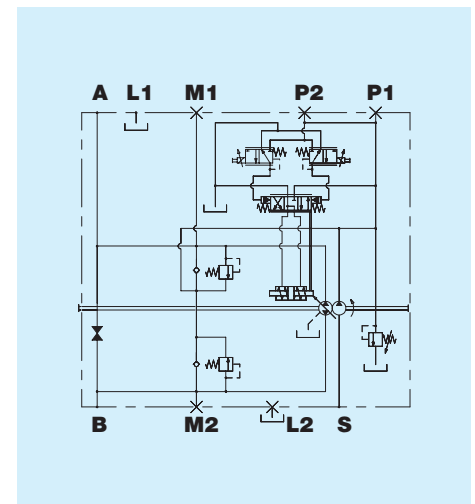
Control

Rated voltage	24	V
Min. current (I1)	180	mA
Max. current (I2)	850	mA
PWM frequency	100	Hz

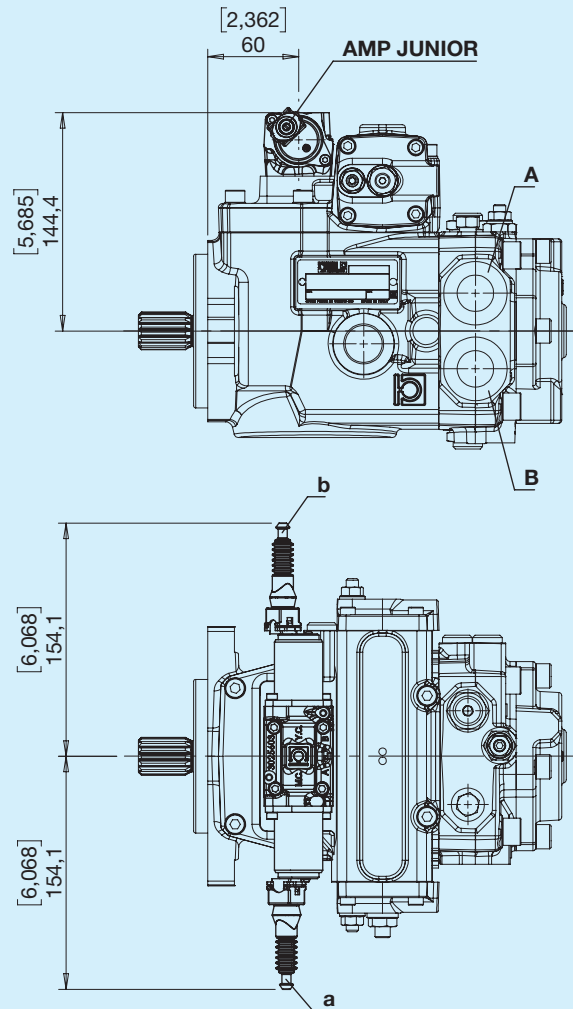
Pilot pressure



Hydraulic diagram



S Electronic proportional control 12V



Available on request with DEUTSCH DT04-2P connectors

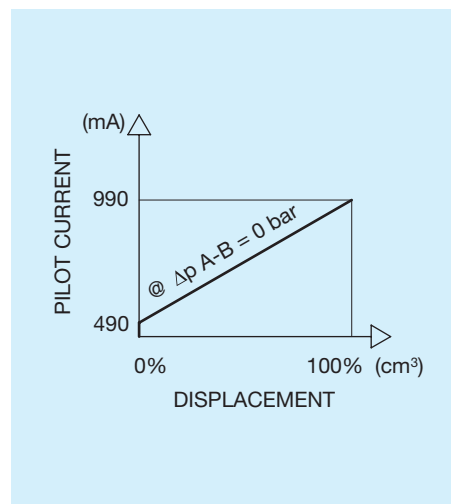
Outlet

Rotation	Excited solenoid	Outlet
Right	a	A
Right	b	B
Left	a	B
Left	b	A

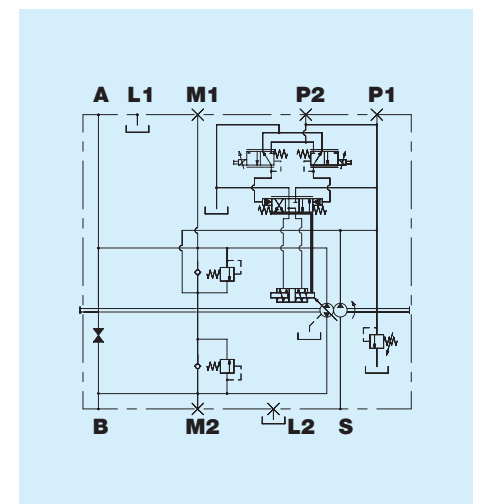
Control

Rated voltage	12	V
Min. current (I1)	300	mA
Max. current (I2)	1500	mA
PWM frequency	100	Hz

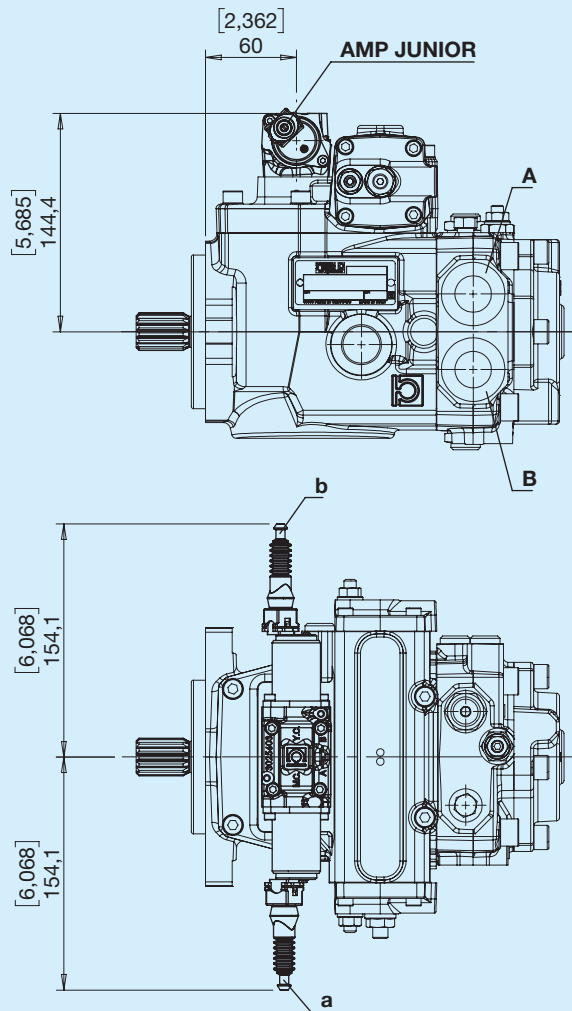
Pilot pressure



Hydraulic diagram



W Electronic proportional control 24V



Available on request with DEUTSCH DT04-2P connectors

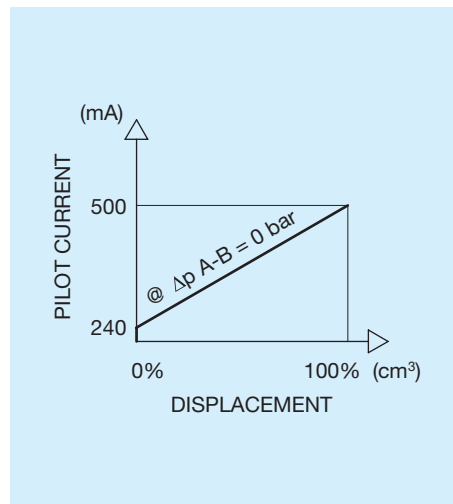
Outlet

Rotation	Excited solenoid	Outlet
Right	a	A
Right	b	B
Left	a	B
Left	b	A

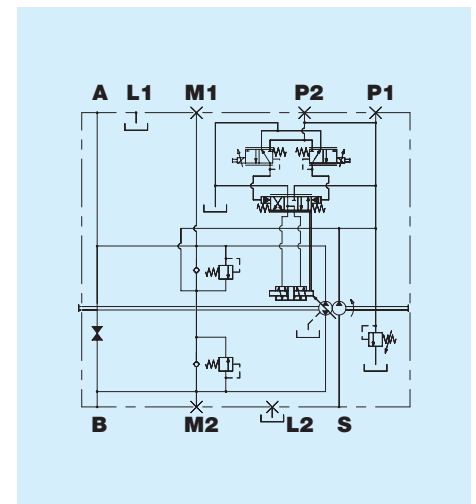
Control

Rated voltage	24	V
Min. current (I1)	180	mA
Max. current (I2)	850	mA
PWM frequency	100	Hz

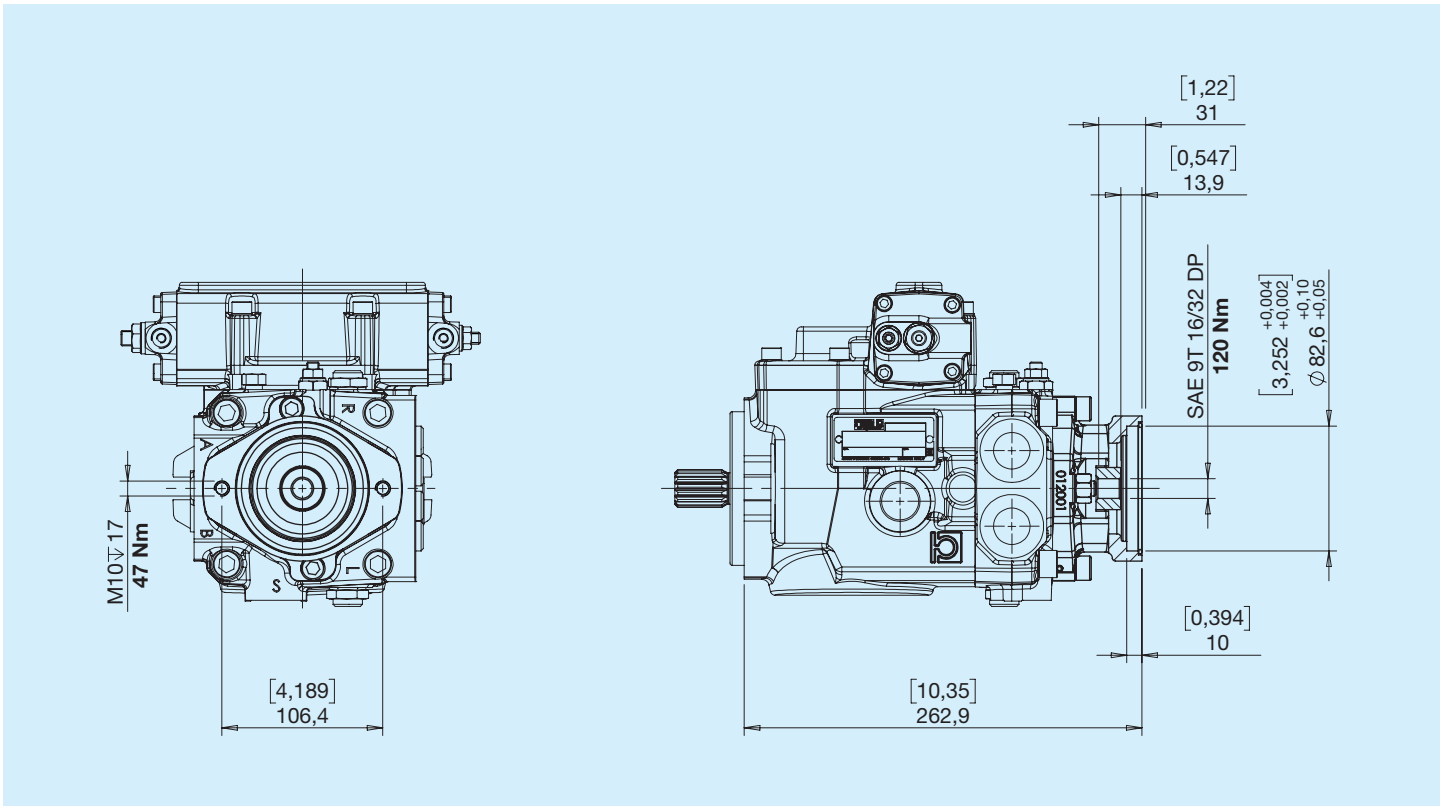
Pilot pressure



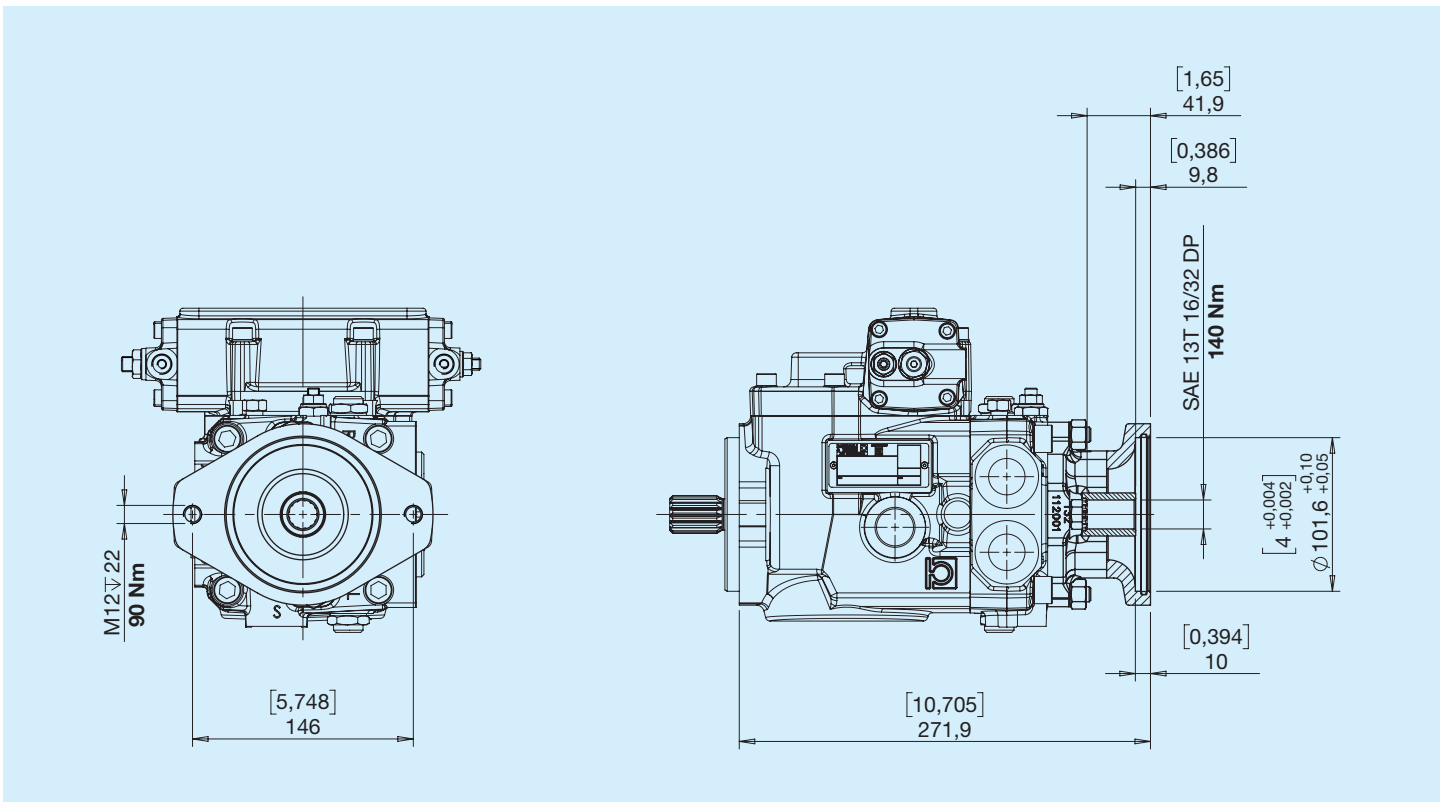
Hydraulic diagram



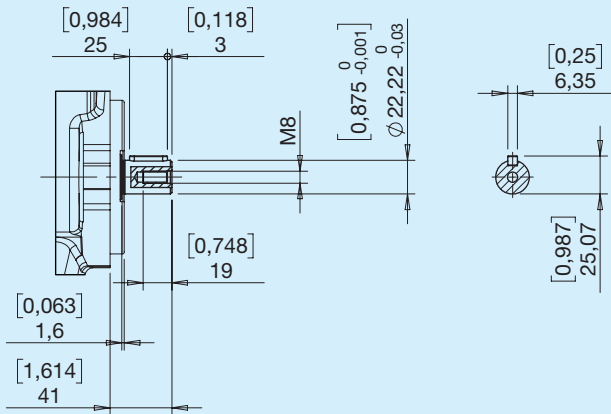
2 SAE A with boost pump



3 SAE B with boost pump

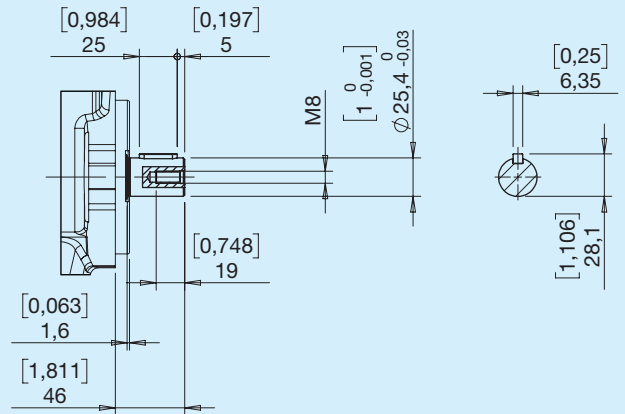


1 Cylindrical Ø22.22



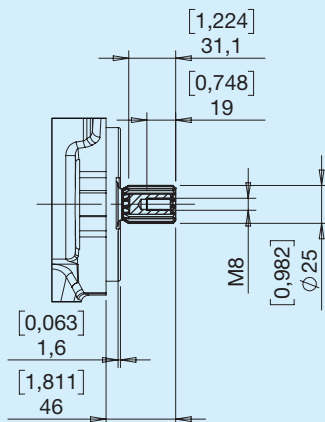
Max. torque 210 Nm

2 Cylindrical Ø25.4



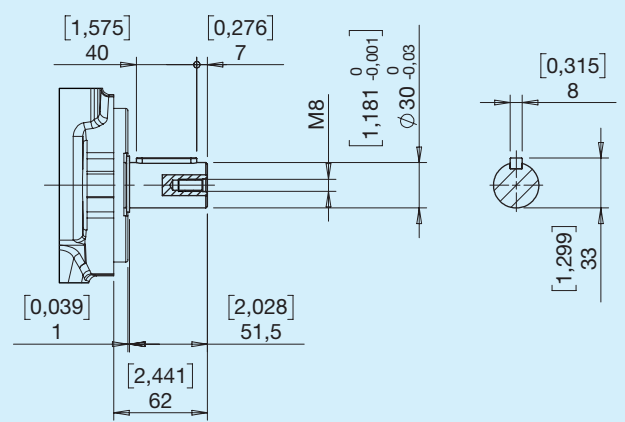
Max. torque 250 Nm

3 SAE 15T 16/32 DP



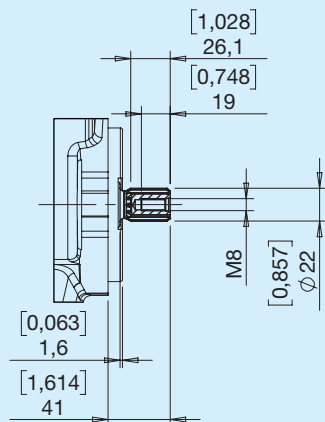
Max. torque 460 Nm

4 Cylindrical Ø30



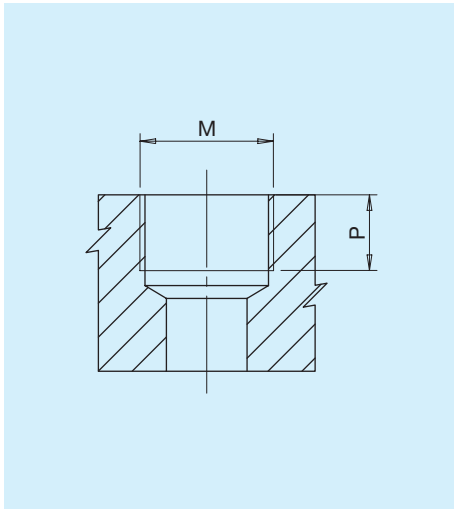
Max. torque 300 Nm

6 SAE 13T 16/32 DP



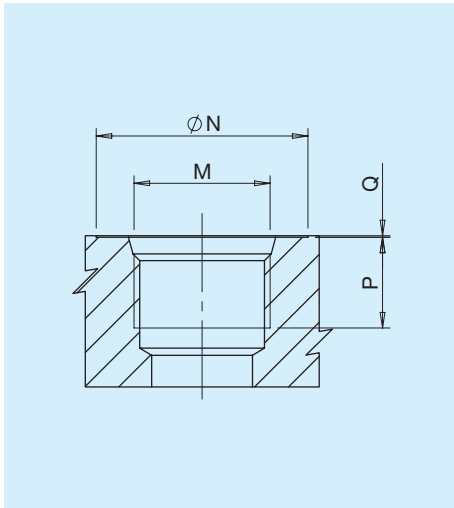
Max. torque 310 Nm

Type R



Type	M	Nm	P	
			mm	in
G2	Port ISO 1179-1 - G 1/4	17	12	0.47
G6	Port ISO 1179-1 - G 3/4	90	15	0.59

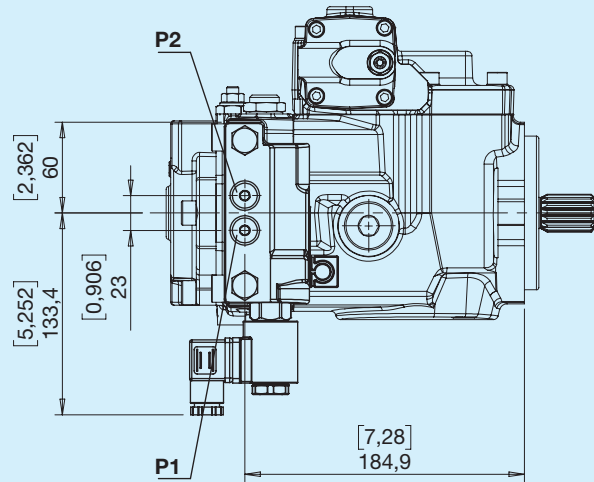
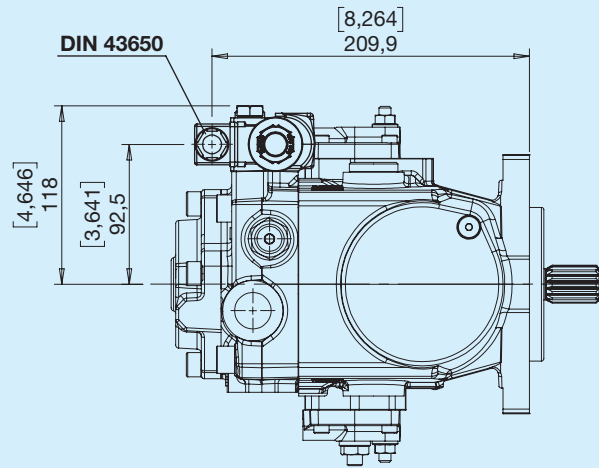
Type U



Type	Dim.	N		P		Q		M	Nm
		mm	in	mm	in	mm	in		
U2	1/4"	20	0.79	12	0.47	0.3	0.01	Port ISO 11926-1-7/16-20	17
U6	3/4"	42	1.65	18	0.70	0.3	0.01	Port ISO 11926-1-1 1/16-12	90

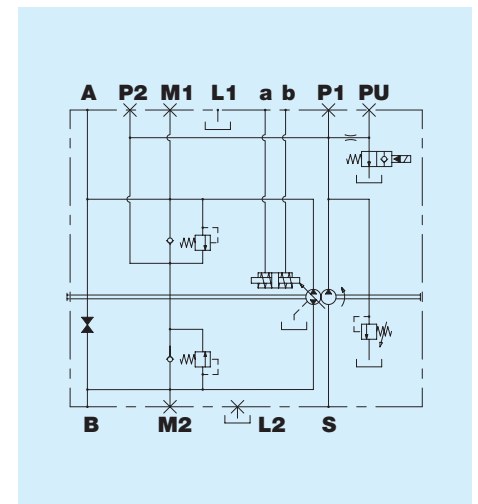
Combinations

Type	Inlet S	Outlet A-B	Drain port L1-L2	Pilot pressure a-b	Pressure points P1 - P2	Pressure gauge sockets M1 - M2
R	G6	G6	G6	G2	G2	G2
U	U6	U6	U6	G2	G2	U2

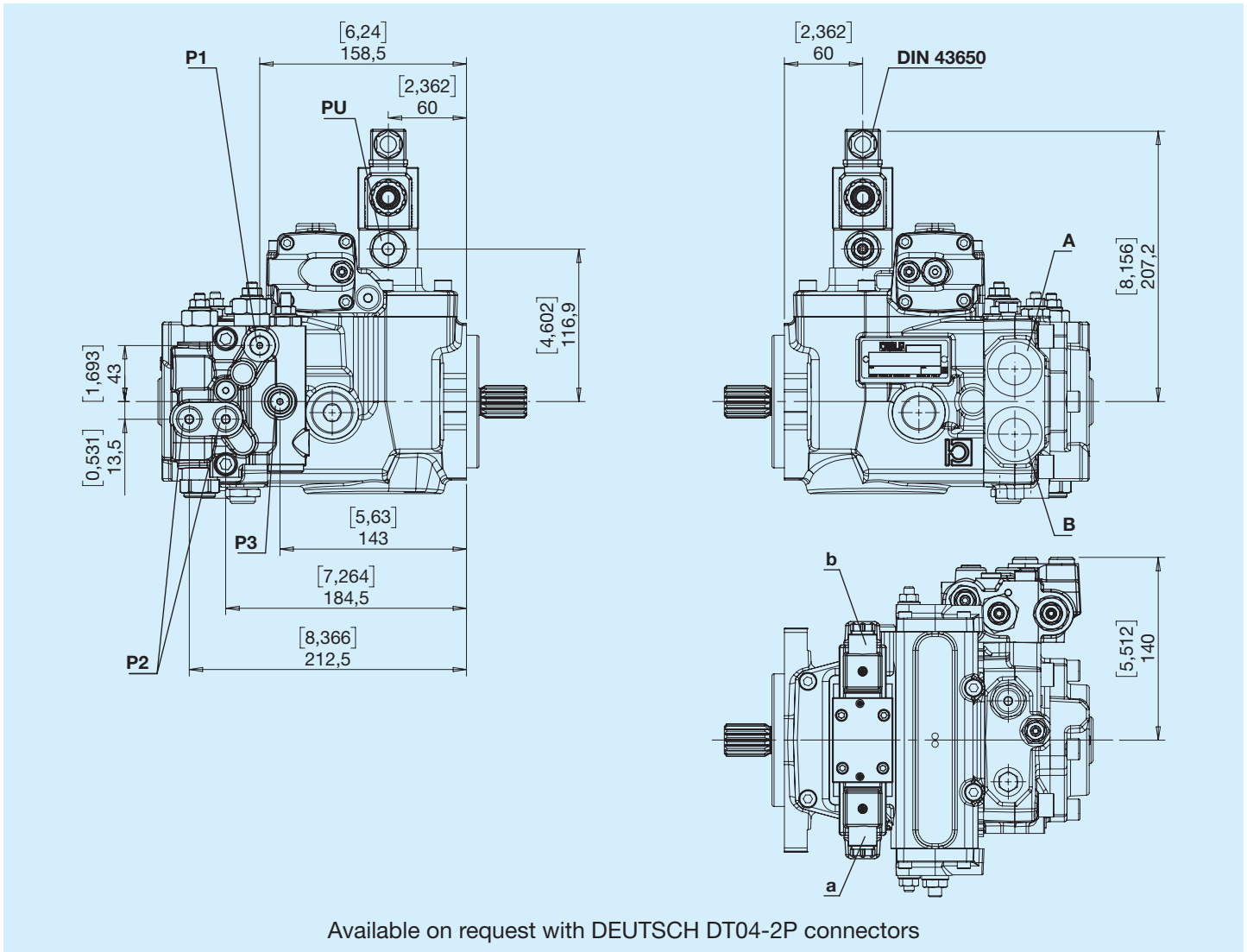


PU - Brake opening pressure G1/4

Hydraulic diagram

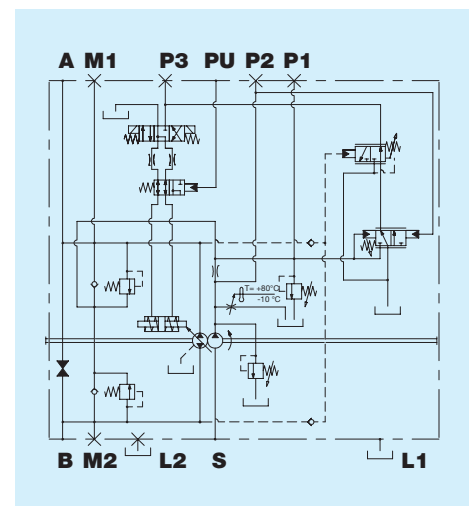


H Hydraulic inching (only A control)

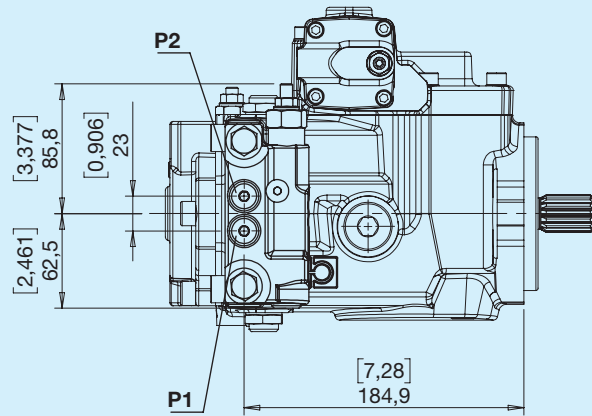


- PU** - G1/8 Pilot pressure inching
- P1, P3** - Pressure intake G1/8
- P2** - Pressure intake G1/4

Hydraulic diagram

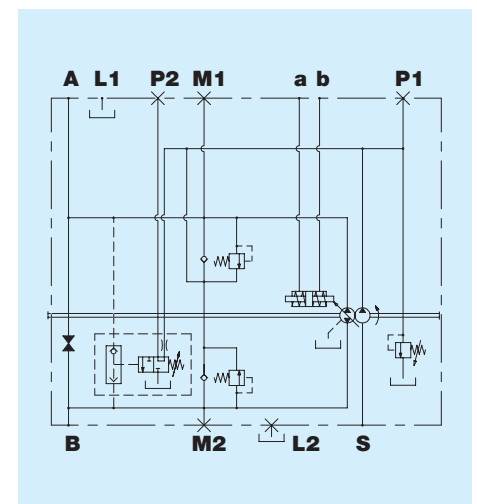


J Cut-off

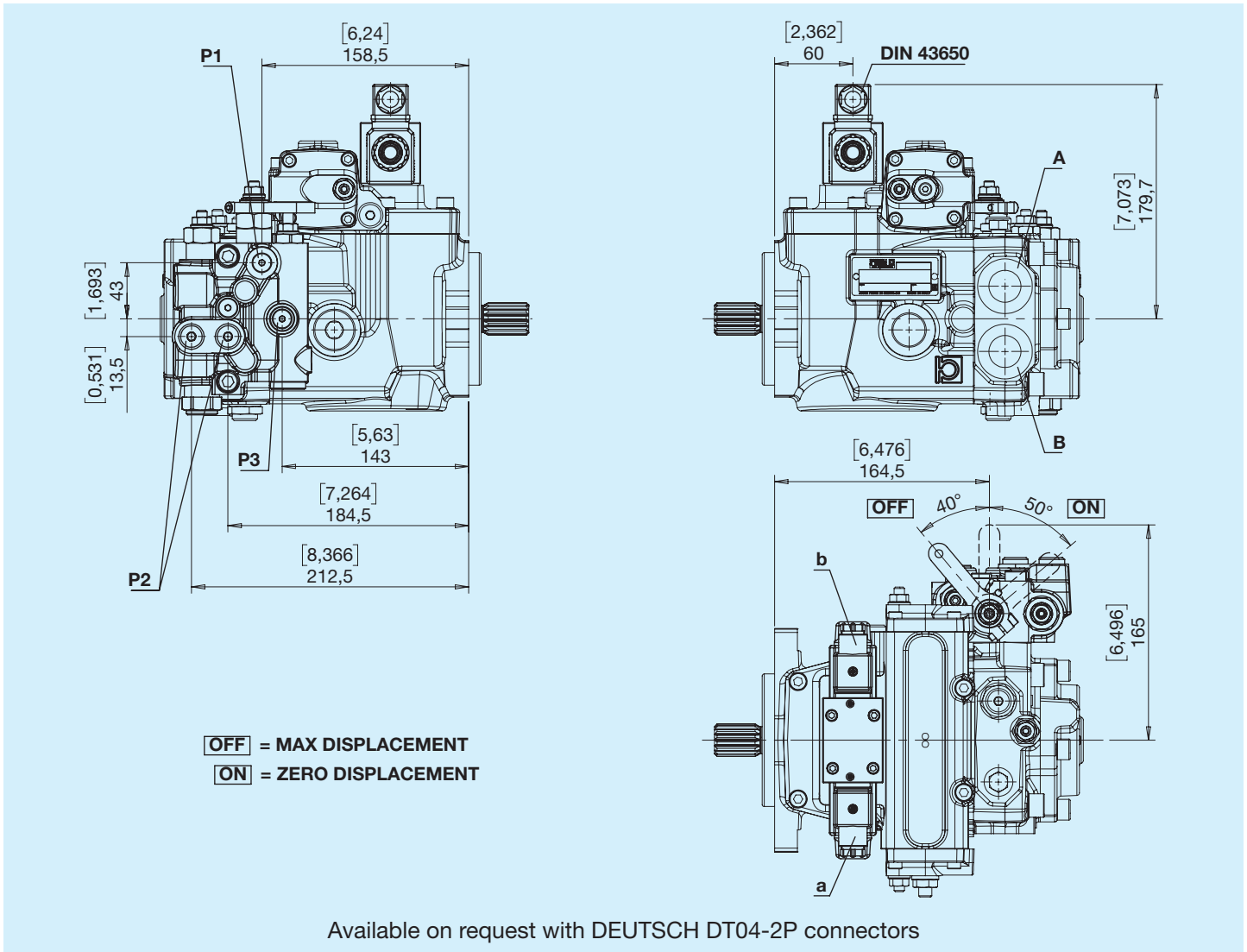


P1, P2 - Pressure intake G1/4

Hydraulic diagram



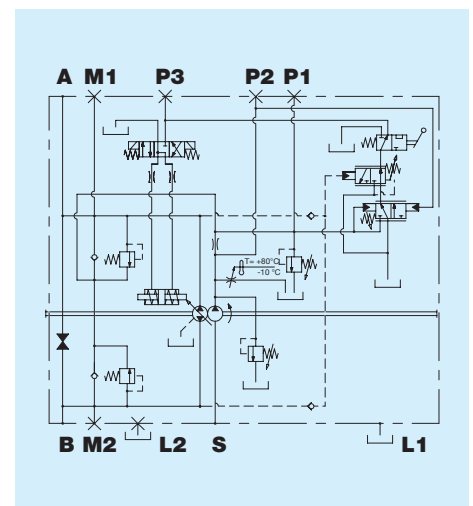
M Mechanical inching (only A control)



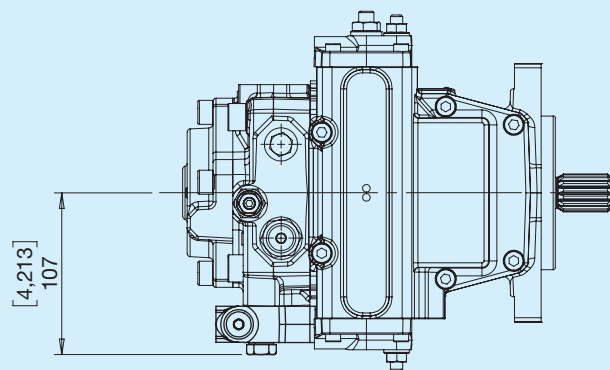
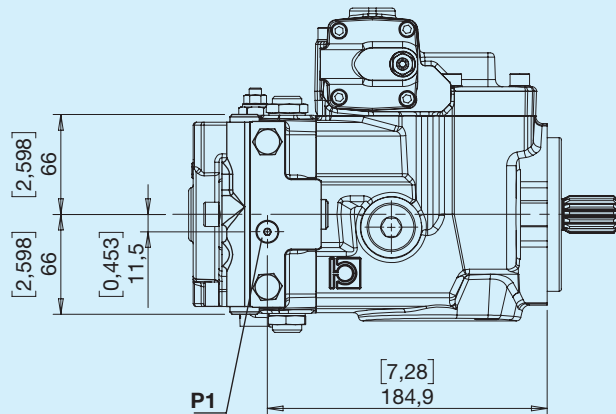
P1, P3 - Pressure intake G 1/8

P2 - Pressure intake G 1/4

Hydraulic diagram

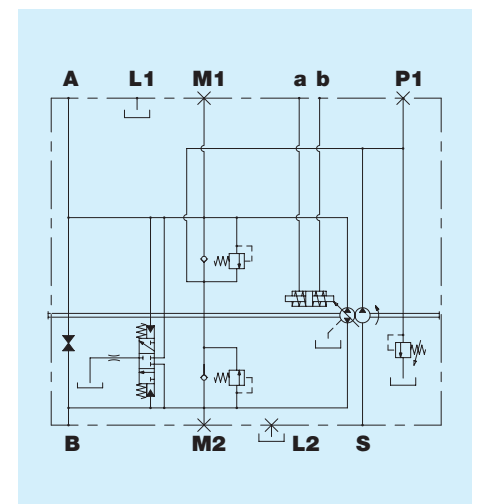


V Flushing valve (5-7 l/min)

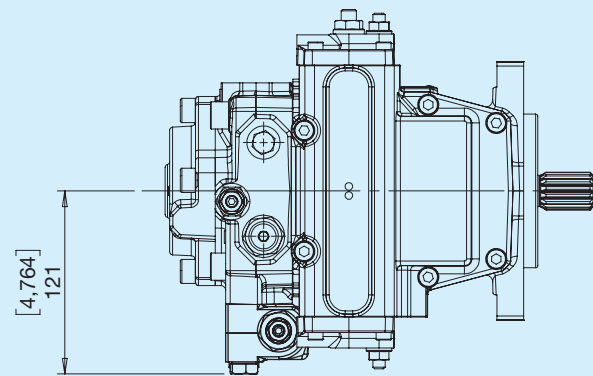
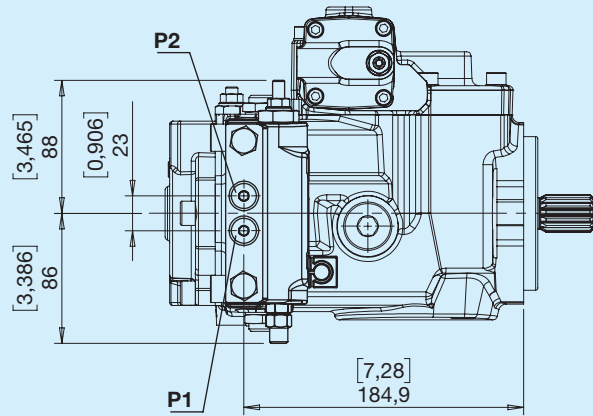


P1 - Pressure intake G1/8

Hydraulic diagram

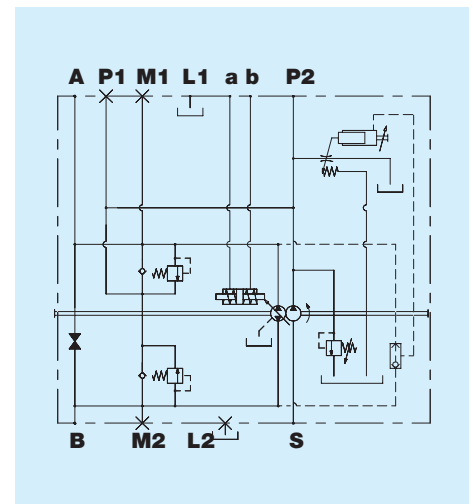


W Power limiter

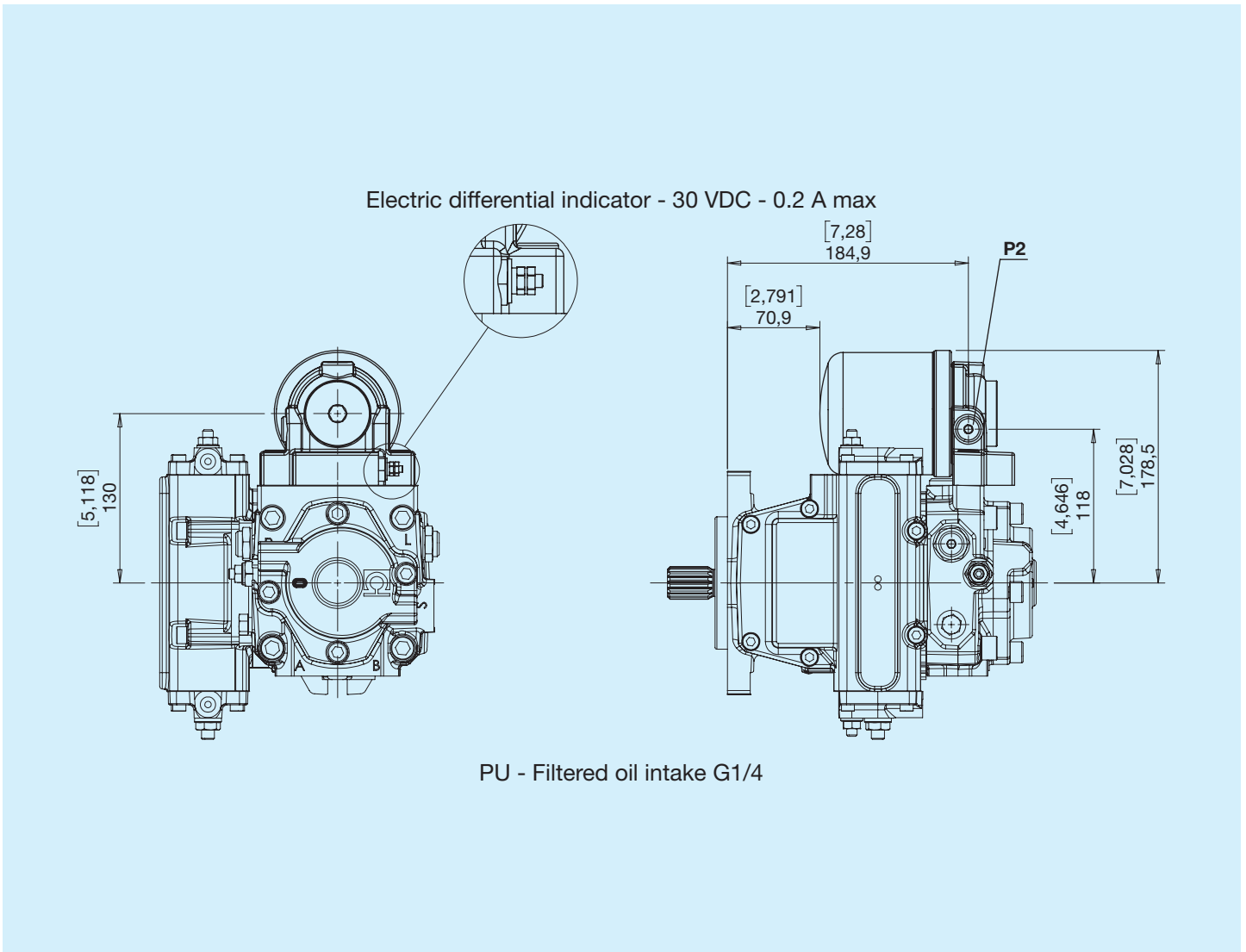


P1, P2 - Pressure intake G1/4

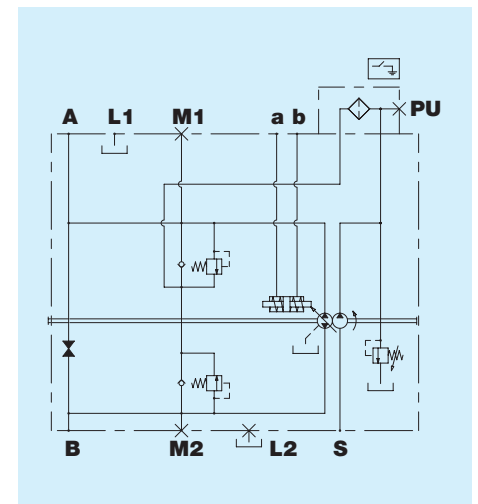
Hydraulic diagram



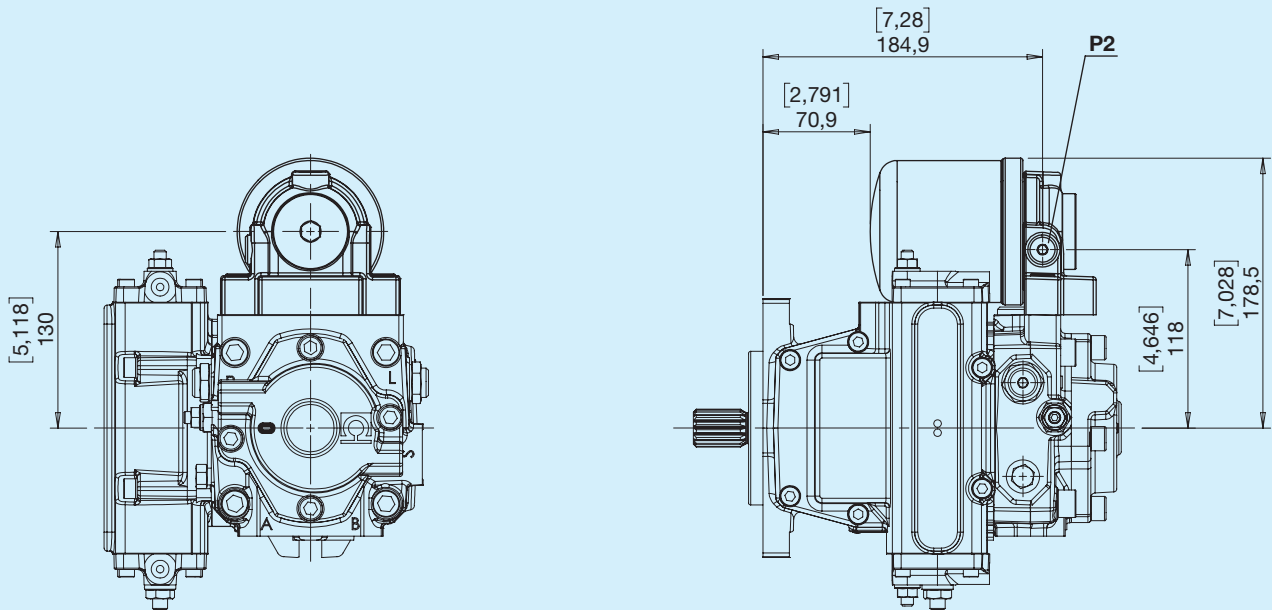
X Filter with clogging indicator



Hydraulic diagram

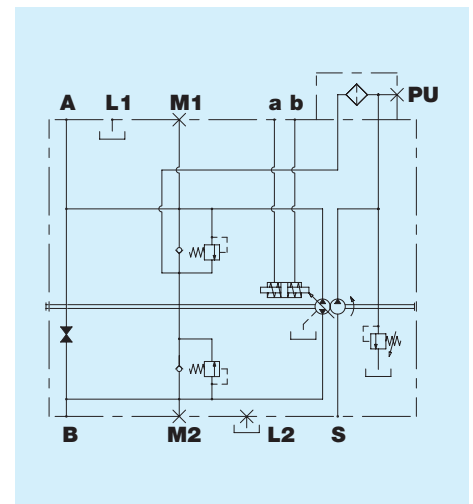


Y Filter without clogging indicator



PU - Filtered oil intake G1/4

Hydraulic diagram



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
M4PV																	
1 2	Nominal displacement																
	34				50				65								
	46				58												
3 4	Displacement																
	34				50				65								
	46				58												
5	Controls																
	A Automotive	E Electrical ON/OFF, closed centre 12V	F Electrical ON/OFF, closed centre 24V	N Electrical ON/OFF, open centre 12V	Q Electrical ON/OFF, open centre 24V	G Feedback hydraulic	I Lever-operated hydraulic	K Remote hydraulic	M Manual	O Electronic proportional feedback control 12V	V Electronic proportional feedback control 24V	S Electronic proportional control 12V	W Electronic proportional control 24V				
6	Versions																
	1 No special fittings, with boost pump	2 SAE A with boost pump	3 SAE B with boost pump	4 No special fittings, without boost pump	5 SAE A without boost pump	6 SAE B without boost pump	7 Short SAE B without boost pump (only for tandem)	B Primary SHORT pump without boost pump	Y Secondary SHORT pump without fitting	U Secondary SHORT pump with SAE A fitting	W Secondary SHORT pump with SAE B fitting						
7	Valve calibration																
	B 150 bar	D 180 bar	E 210 bar	G 250 bar	I 280 bar	L 300 bar	O 350 bar	P 400 bar									
8	Swashplate type																
	A Mounted on needle bearings	B Mounted on bronze bearings															
9	Direction of rotation																
	R Right	L Left															
10	Shafts																
	1 Cylindrical Ø22.22	2 Cylindrical Ø25.4	3 SAE 15T 16/32 DP	4 Cylindrical Ø30	5 SAE 13T 16/32 DP female (sec. tandem)	6 SAE 13T 16/32 DP	0 For secondary SHORT pump										
11	By-pass																
	B By-pass																
12	Type of ports																
	R Gas	U Unf															
13	Accessories																
	0 No option	H Hydraulic inching (only A control)	J Cut-off	M Mechanical inching (only A control)	P Verniciatura	V Flushing valve	W Power limiter	X Filter with electric clogging indicator	Y Filter without electric clogging indicator	S Multiple accessories							
14 15 16	Special versions																
	...																

Double pump, short version

The order code of a short multiple pump is obtained, as shown in the examples, by summing the codes of the individual pumps (stages) obtained by following the order instructions for the single pumps.

WARNING! the short M4PV tandem version does not have a charge pump in the common distributor and must therefore be supplied externally.

