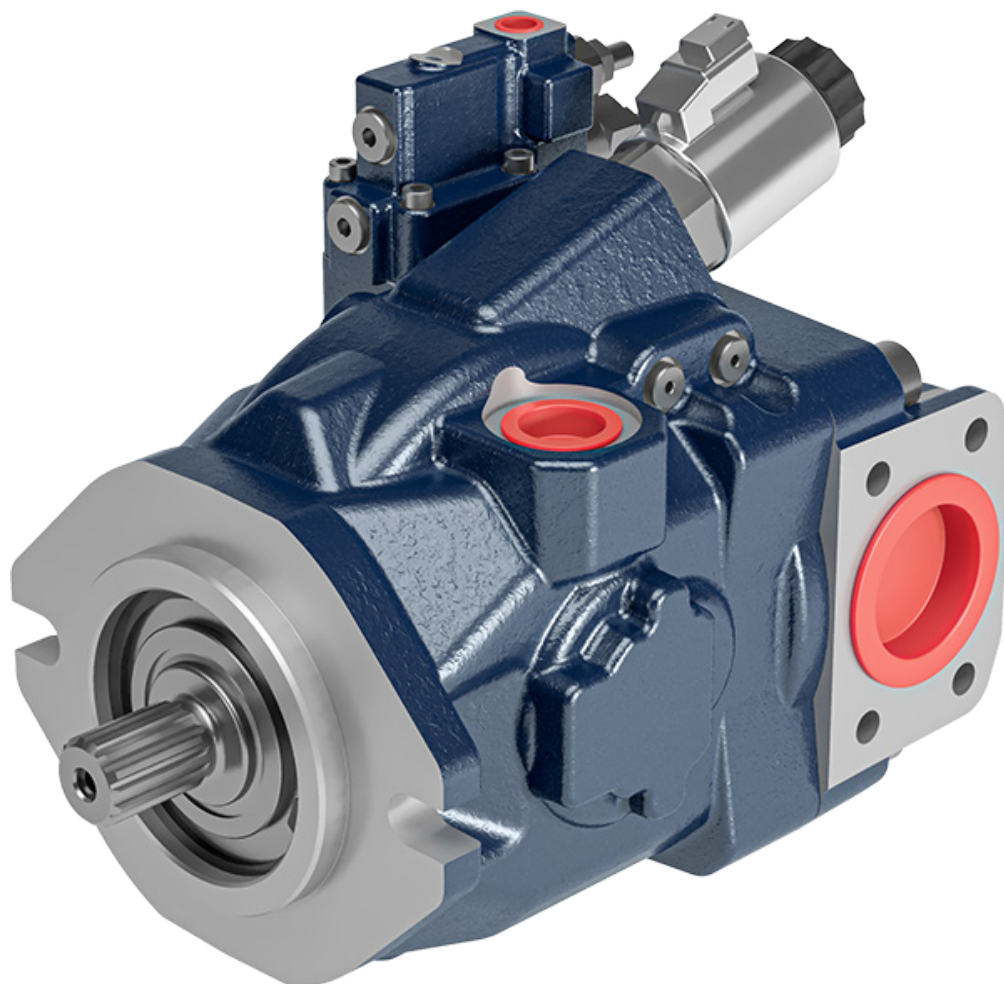
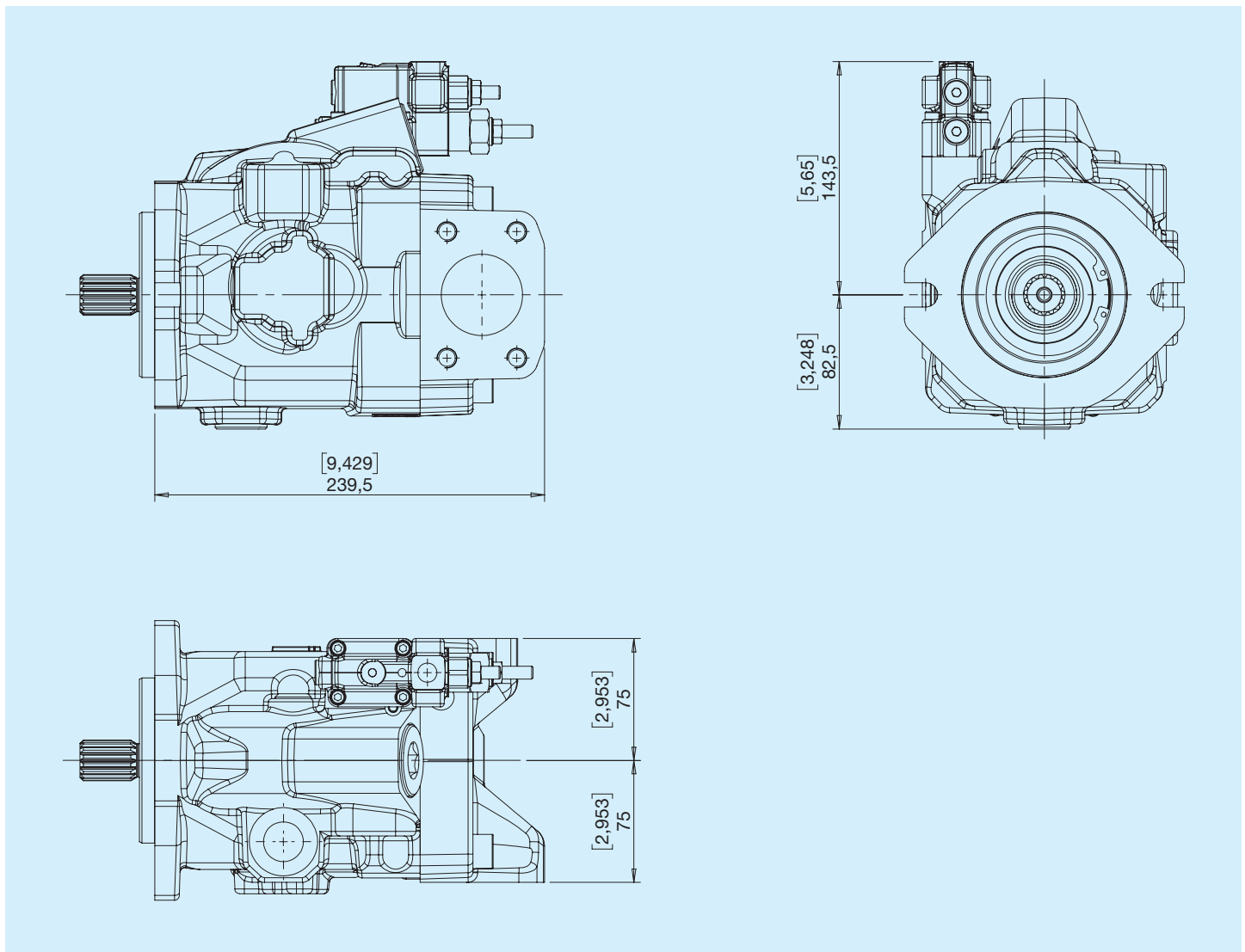


Variable-displacement pumps

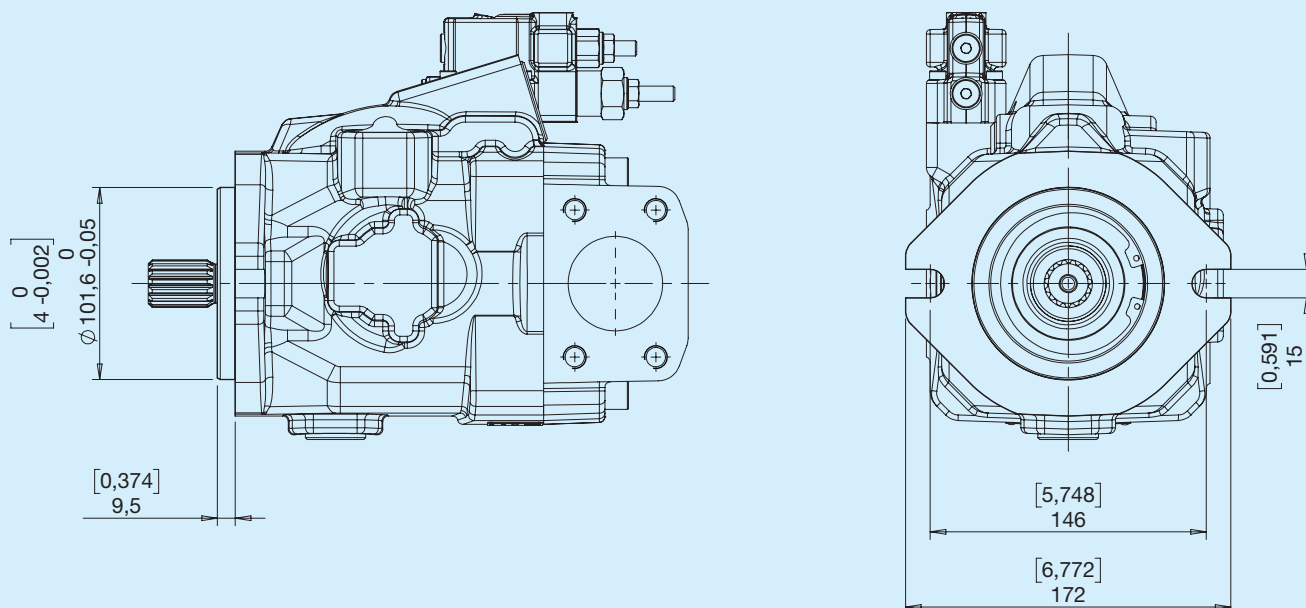


Before use, carefully read the GENERAL INSTRUCTIONS FOR USE OF OPEN CIRCUIT AXIAL PISTON PUMPS.

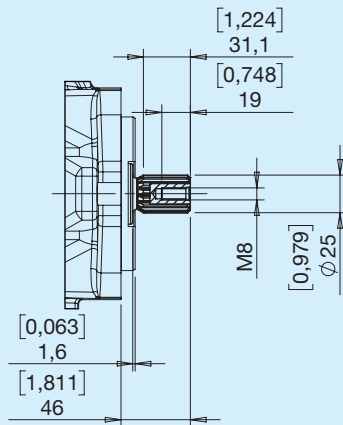


HPA5	Theoretical displacement		Swash plate °	Continuous pressure		Intermittent pressure		Peak pressure		Rotational speed		Weight	
	cm ³	in ³		bar	psi	bar	psi	bar	psi	min ⁻¹	min ⁻¹	kg	lbs
72	72	4,39	19	280	4060	320	4640	350	5075	2500	500	24,5	54
80	80	4,89	15	250	3625	300	4350	320	4640	2400	500	24,5	54
90	90	5,50	17	250	3625	280	4060	300	4350	2300	500	24,5	54

B SAE B

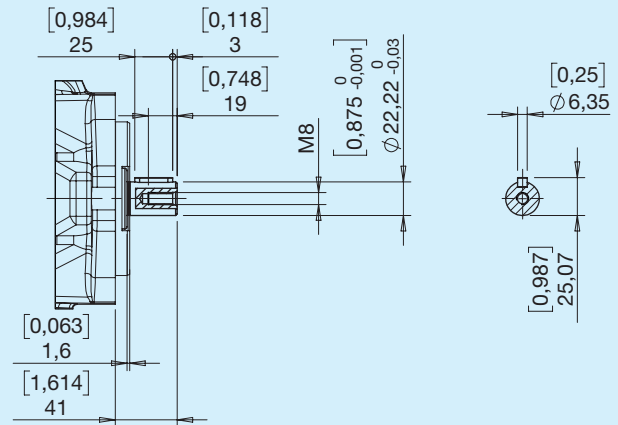


1 SAE 15T 16/32 DP



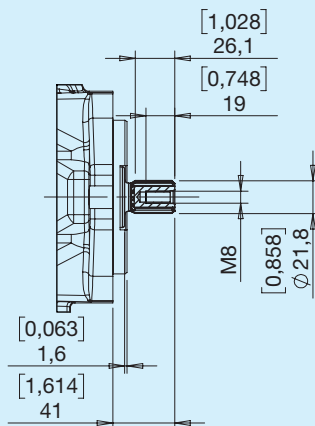
Max. torque 460 Nm

6 CYLINDRICAL D22.22



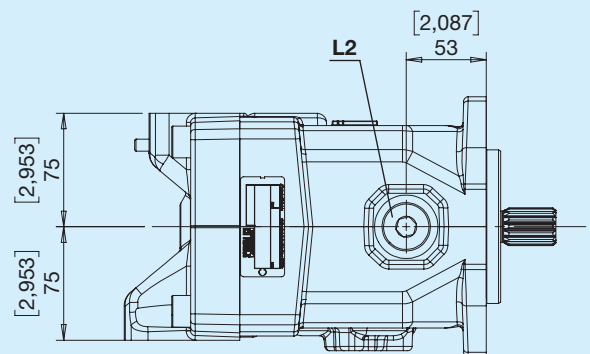
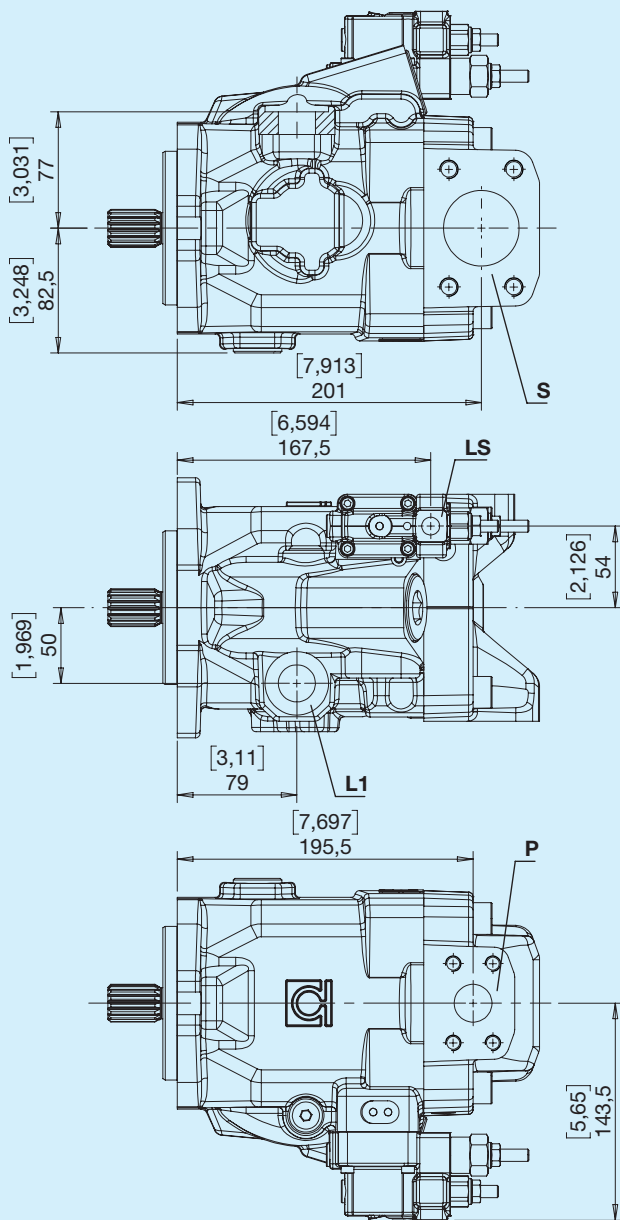
Max. torque 210 Nm

9 SAE 13T 16/32 DP



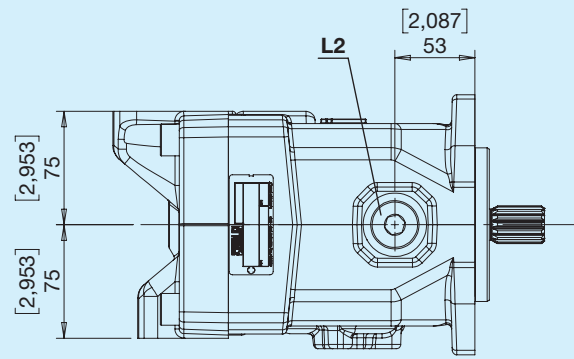
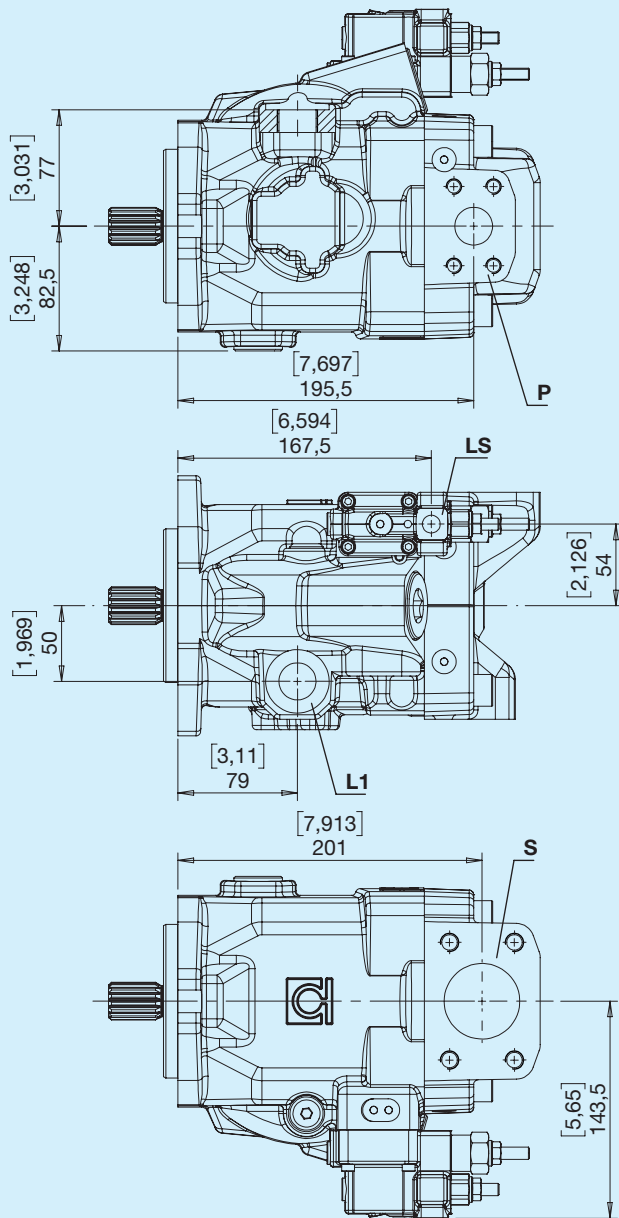
Max. torque 310 Nm

S **N** Side right rotation



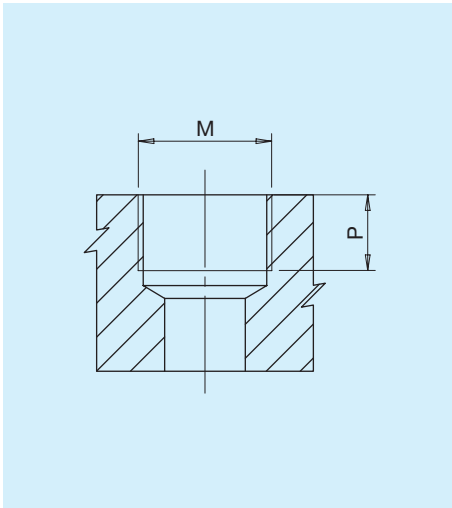
S - Inlet
P - Pressure intake
L1, L2 - Drain port
LS (x) - Pilot

S **N** Side left rotation



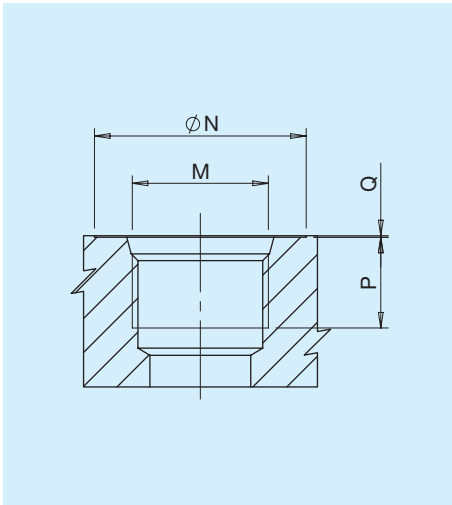
S - Inlet
P - Pressure intake
L1, L2 - Drain port
LS (x) - Pilot

Type G



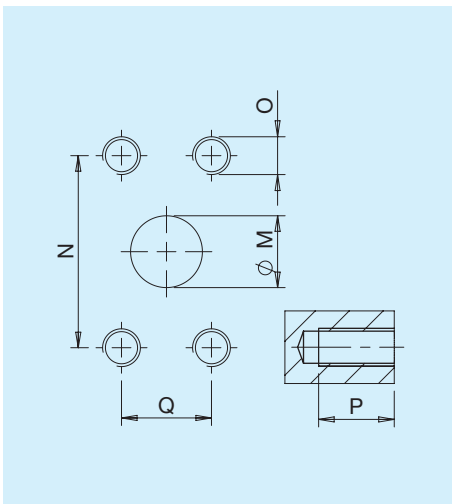
Type	M		P	
		Nm	mm	in
G2	Port ISO 1179-1 - G 1/4	17	14	0,55
G6	Port ISO 1179-1 - G 3/4	90	23	0,91

Type U



Type	Dim.	N		P		Q		M	Nm
		mm	in	mm	in	mm	in		
U2	1/4"	17	0,67	12	0,47	0,3	0,01	Port ISO 11926-1-7/16-20	17
U6	3/4"	42	1,65	20	0,79	0,3	0,01	Port ISO 11926-1-1 1/16-12	90

Type N



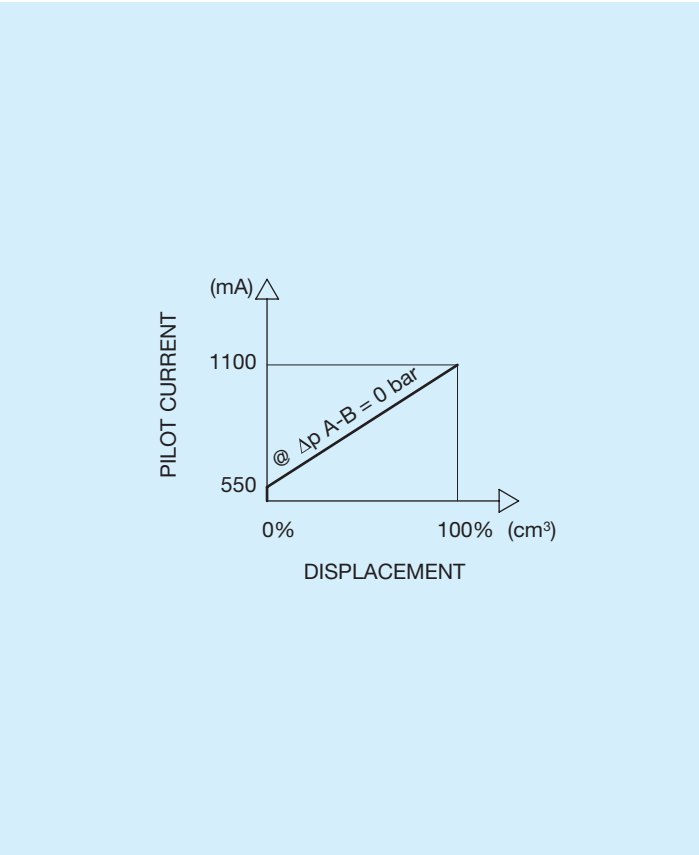
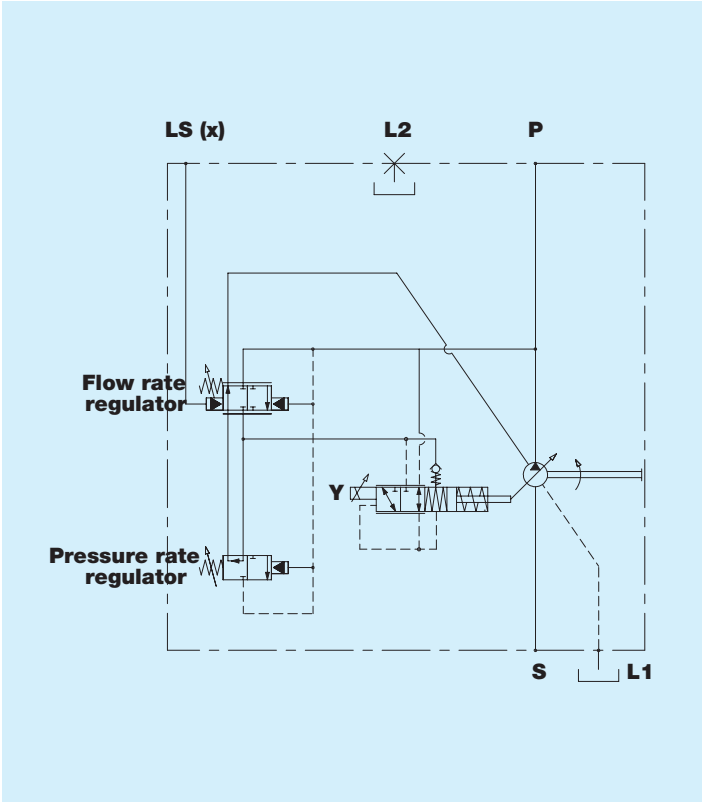
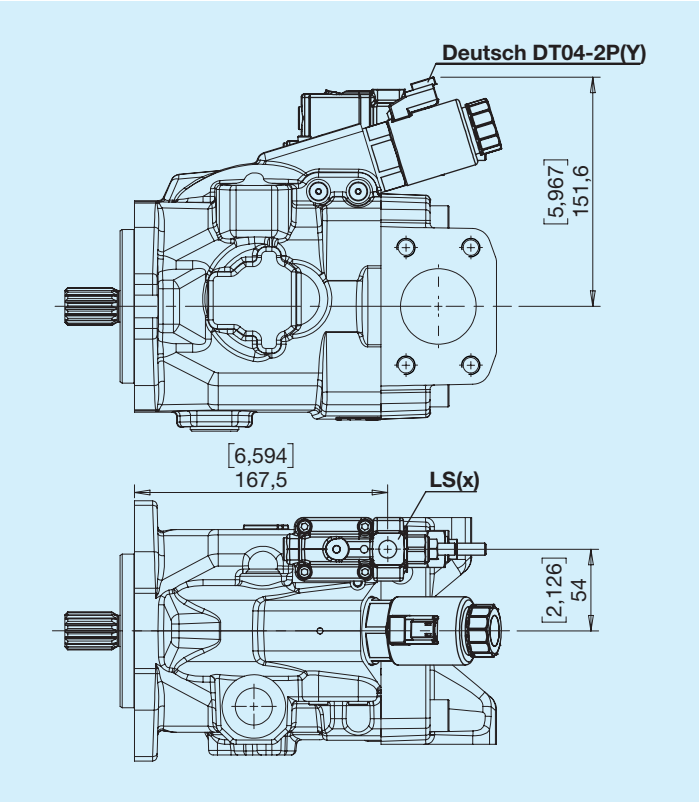
Type	M		N		Q		P		O	Nm
	mm	in	mm	in	mm	in	mm	in		
N7	25	0,98	52,4	2,06	26,2	1,03	20	0,79	M10	38
N0	50	1,97	77,8	3,06	42,9	1,69	20	0,79	M12	70

Combinations

Type	Inlet S	Outlet A-B	Drain port L1-L2	Pilot pressure LS (x)
G	N0	N7	G6	G2
U	N0	N7	U6	G2

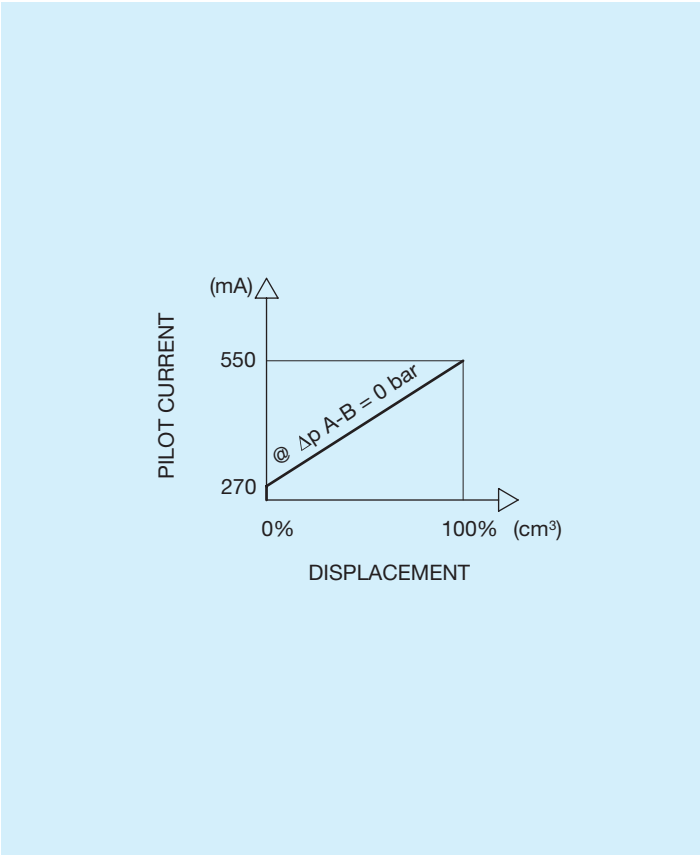
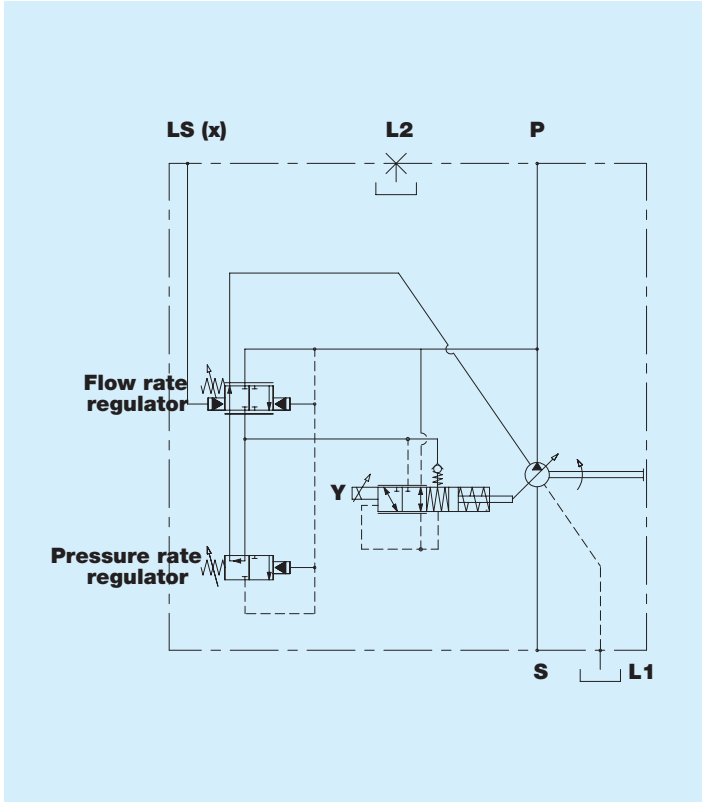
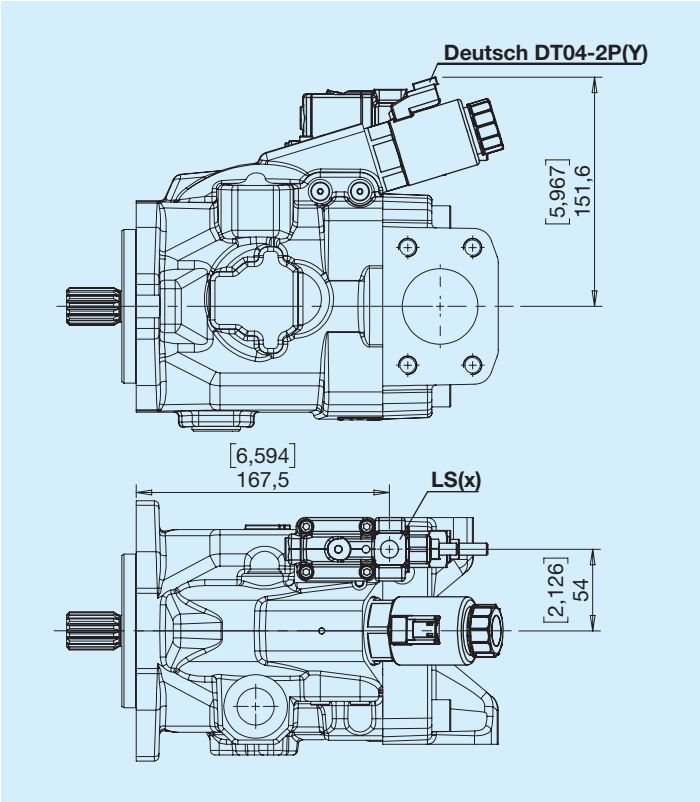
E

Electro-proportional 12 V + hydraulic



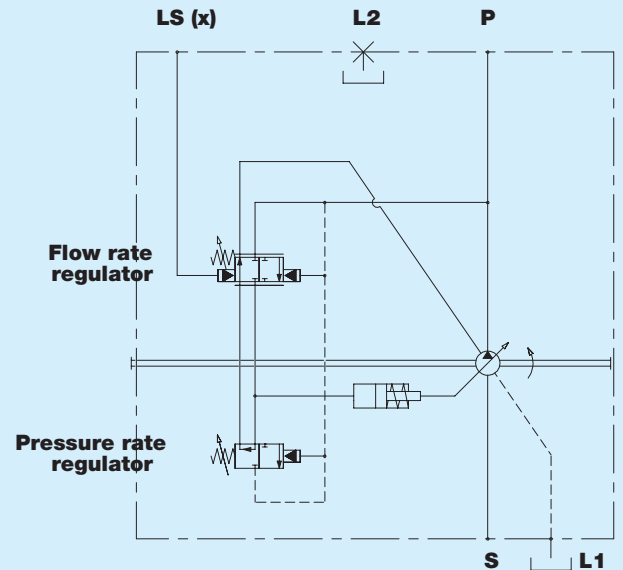
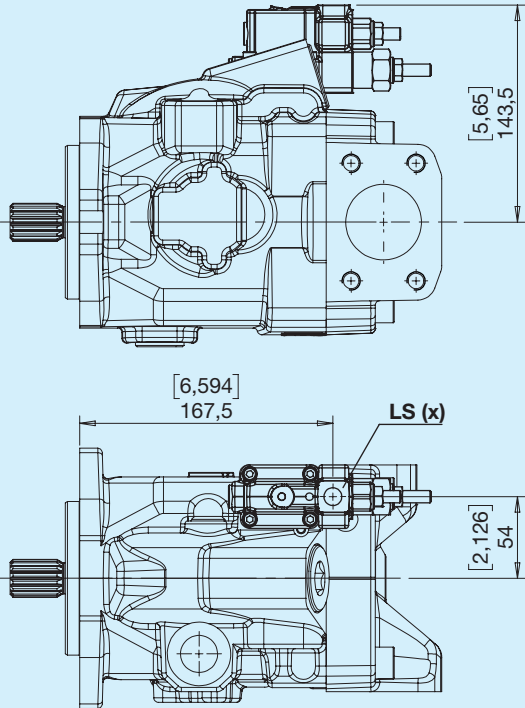
Working pressure bar - psi	Differential pressure		
	14 bar - 203 psi	21 bar - 305 psi	25 bar - 363 psi
180 - 2610	A	B	C
210 - 3045	E	F	G
250 - 3625	I	L	M
280 - 4060	O	P	Q
320 - 4640	S	T	U
350 - 5075	Z	X	Y

F Electro-proportional 24 V + hydraulic

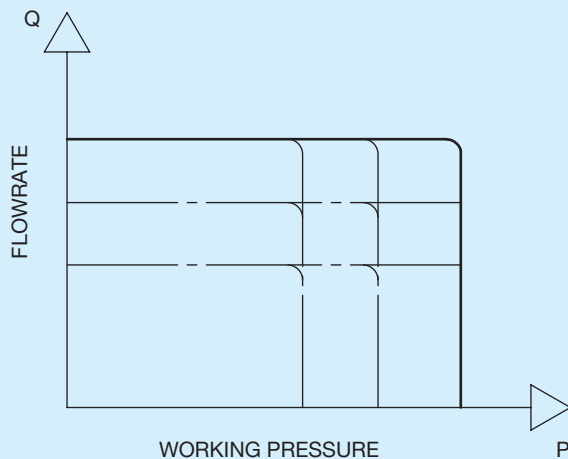


Working pressure bar - psi	Differential pressure		
	14 bar - 203 psi	21 bar- 305 psi	25 bar- 363 psi
180 - 2610	A	B	C
210 - 3045	E	F	G
250 - 3625	I	L	M
280 - 4060	O	P	Q
320 - 4640	S	T	U
350 - 5075	Z	X	Y

L

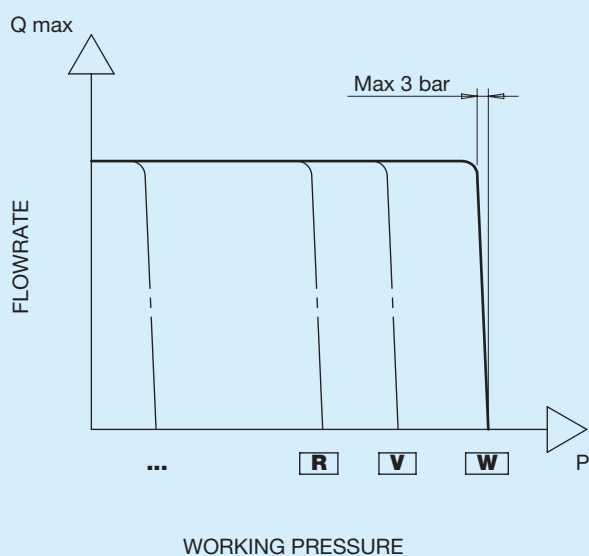
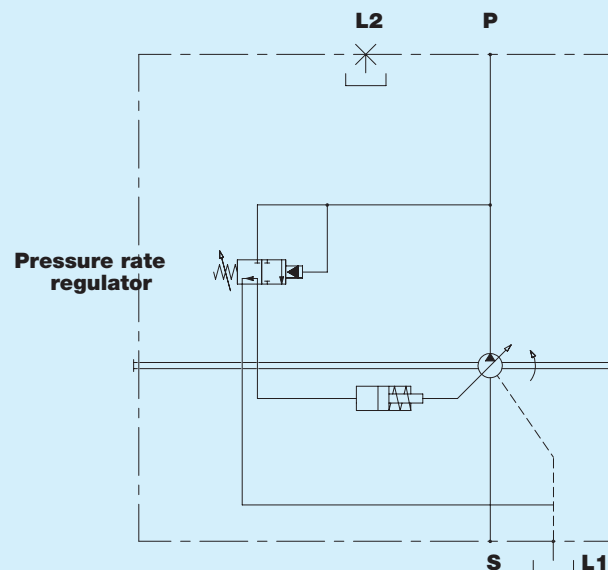
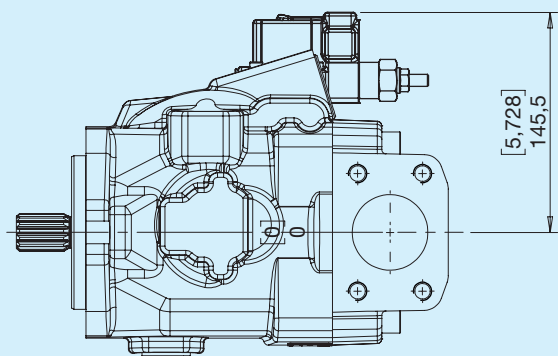


The maximum pressure relief valve must be set to a value that is over 10% of the pump pressure regulator setting.



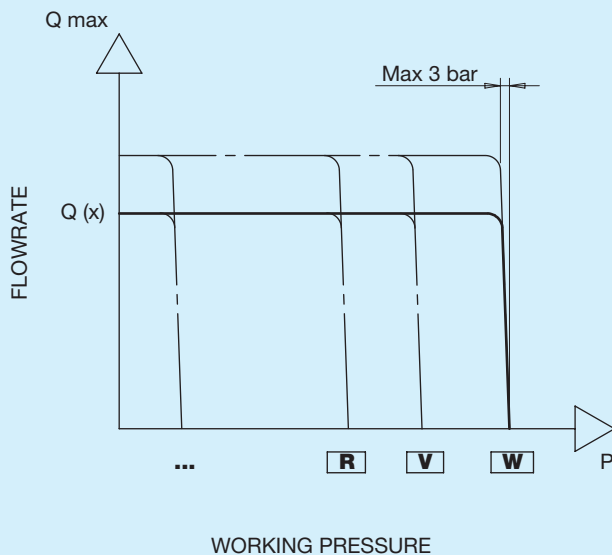
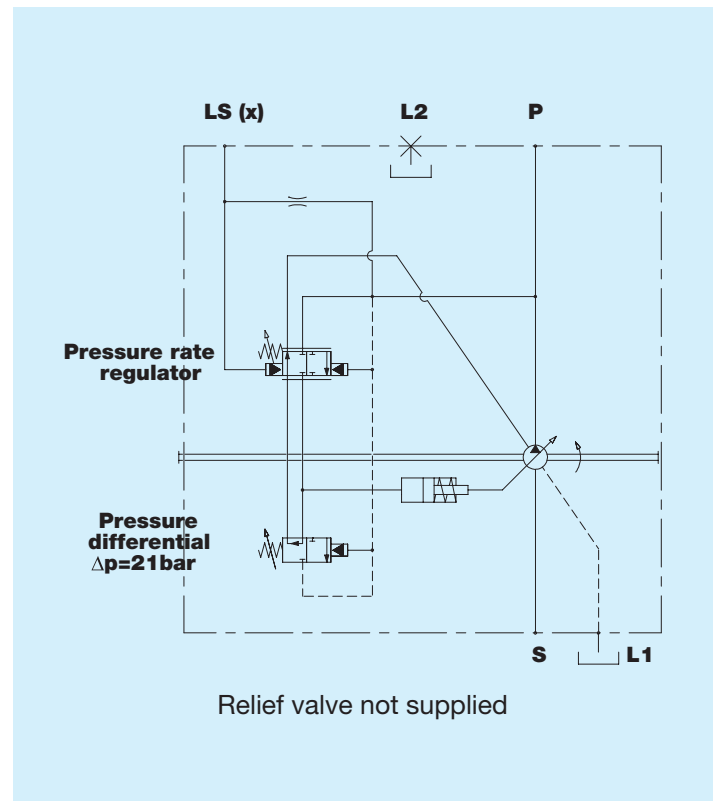
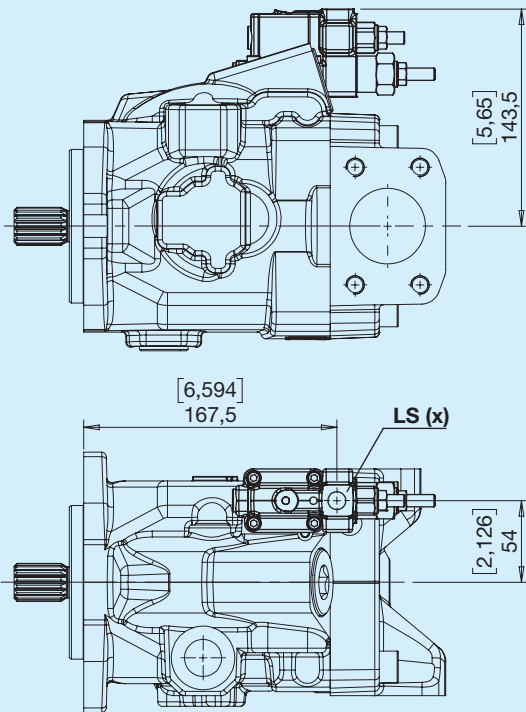
Working pressure bar - psi	Differential pressure		
	14 bar - 203 psi	21 bar - 305 psi	25 bar - 363 psi
180 - 2610	A	B	C
210 - 3045	E	F	G
250 - 3625	I	L	M
280 - 4060	O	P	Q
320 - 4640	S	T	U
350 - 5075	Z	X	Y

P Constant pressure regulator



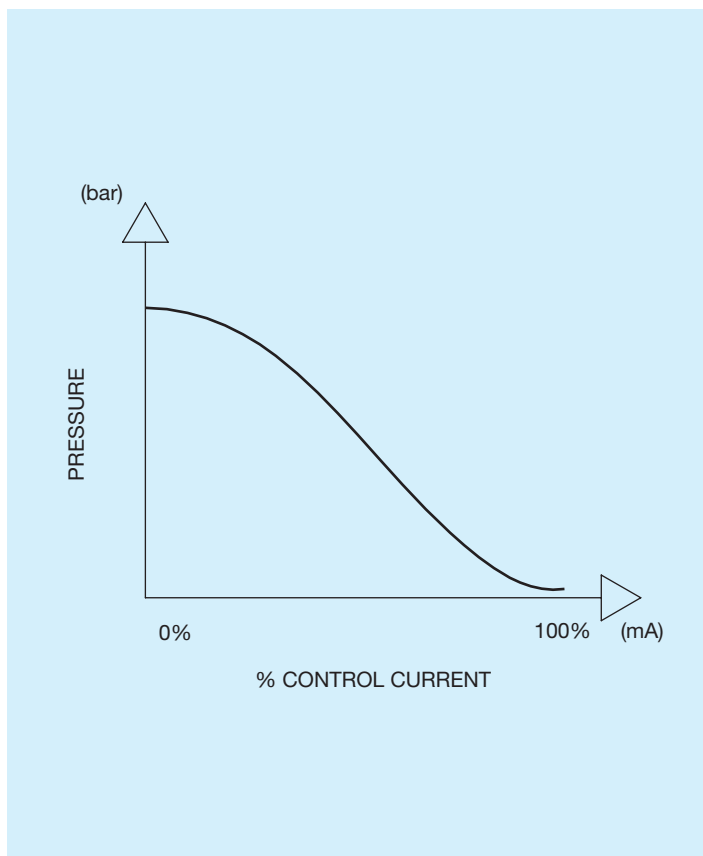
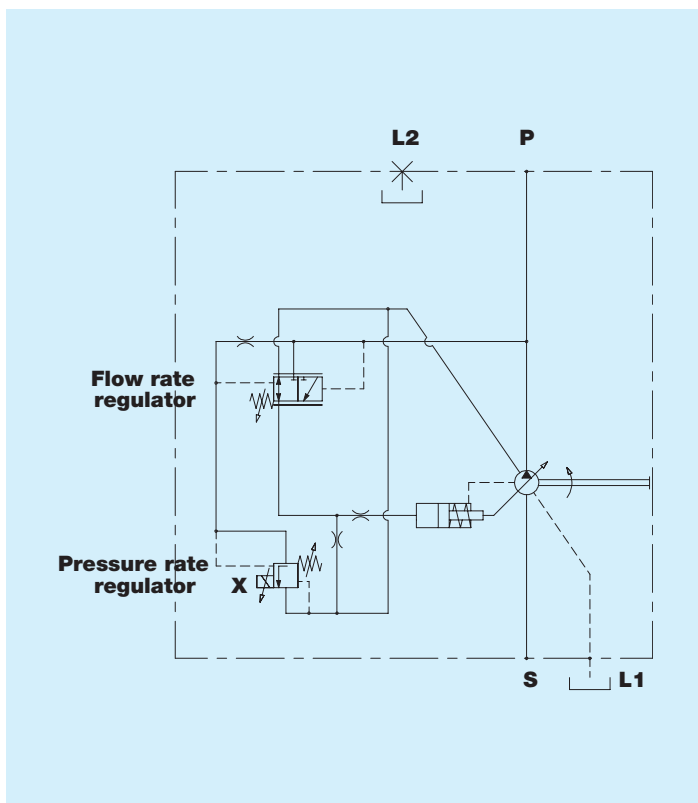
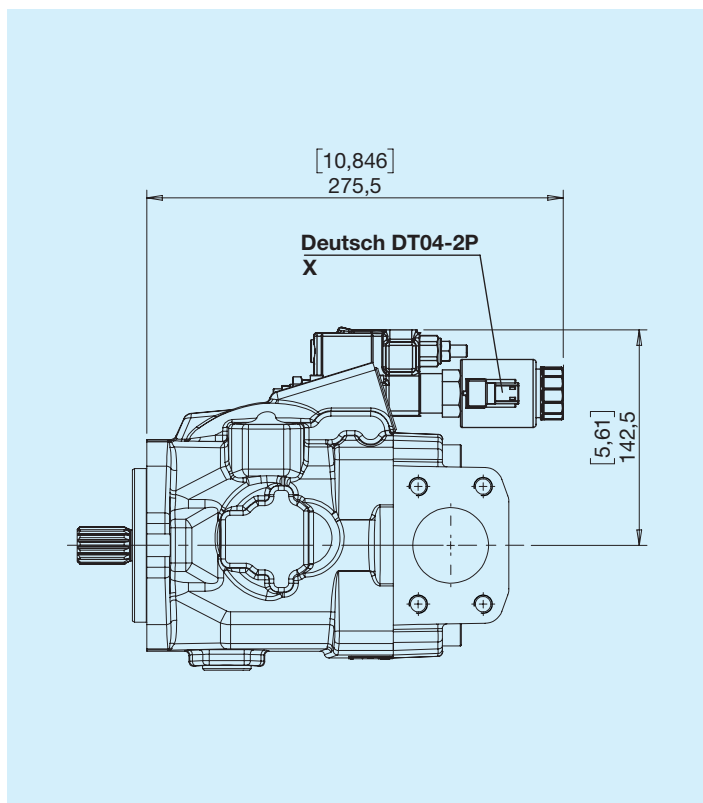
Code	Working pressure
Differential pressure 21 bar	bar - psi
D	180 - 2610
H	210 - 3045
N	250 - 3625
R	280 - 4060
V	320 - 4640
W	350 - 5075

R Remote control pressure regulator



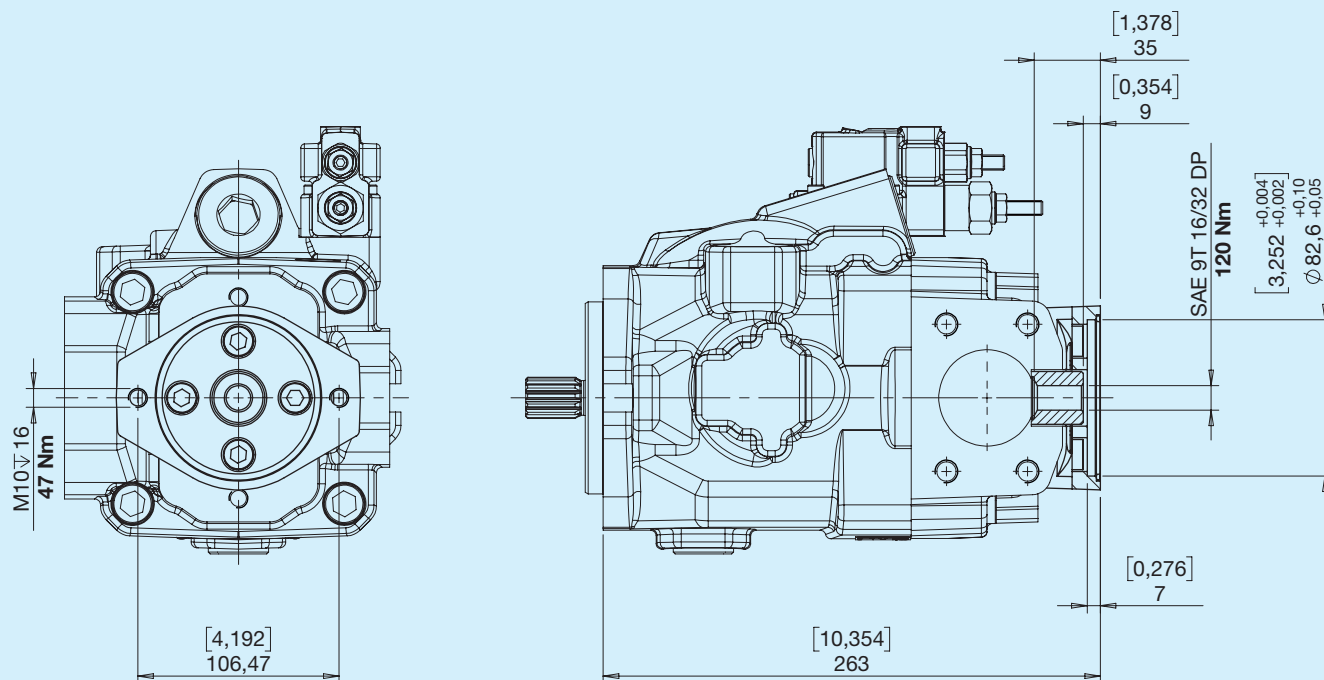
Code	Working pressure
Differential pressure 21 bar	bar - psi
D	180 - 2610
H	210 - 3045
N	250 - 3625
R	280 - 4060
V	320 - 4640
W	350 - 5075

S Fan drives

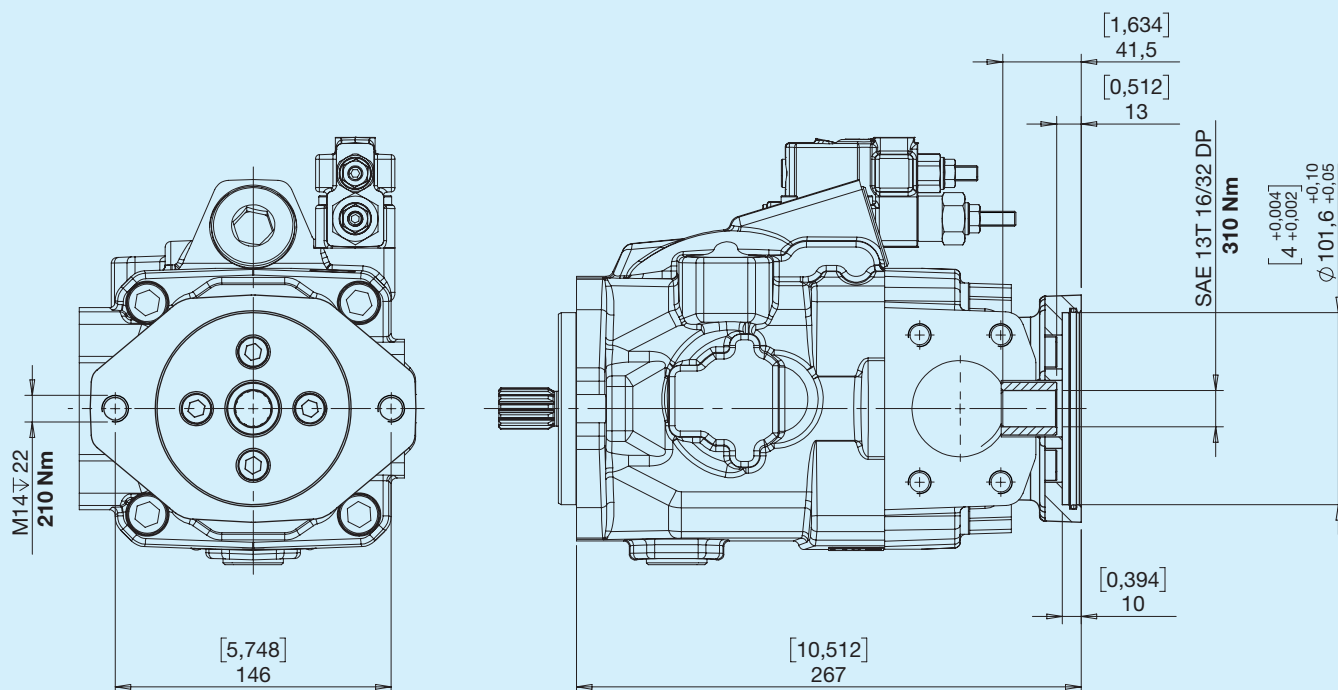


Working pressure bar - psi	Differential pressure		
	14 bar - 203 psi	21 bar - 305 psi	25 bar - 363 psi
180 - 2610	A	B	C
210 - 3045	E	F	G
250 - 3625	I	L	M
280 - 4060	O	P	Q
320 - 4640	S	T	U
350 - 5075	Z	X	Y

5 SAE A



6 SAE B



	1	2	3	4	5	6	7	8	9	10	11	12	13
HPA5													
1 2	Displacement												
	72				80				90				
3	Direction of rotation												
	R Right				L Left								
4	Flanges												
	B SAE B												
5	Shaft profile												
	1 SAE 15T 16/32 DP				6 CYLINDRICAL D22.22				9 SAE 13T 16/32 DP				
6	Type of ports												
	S Gas-Uses SAE side				N Unf-Uses SAE side								
7	Controls												
	E Electro-proportional 12 V + hydraulic LS				L Pressure/flow rate regulator-hydraulic LS				R Remote control pressure regulator				
	F Electro-proportional 24 V + hydraulic LS				P Constant pressure regulator				S Fan drives				
8	Command Set												
	... See pertinent tables												
9	Versions												
	0 No special fittings				5 SAE A				6 SAE B				
10	Direction of rotation												
	0 No option				O Pressure sensor				S Multiple accessories				
	A Angle sensor				P Paint								
11 12 13	Special versions												
	...												