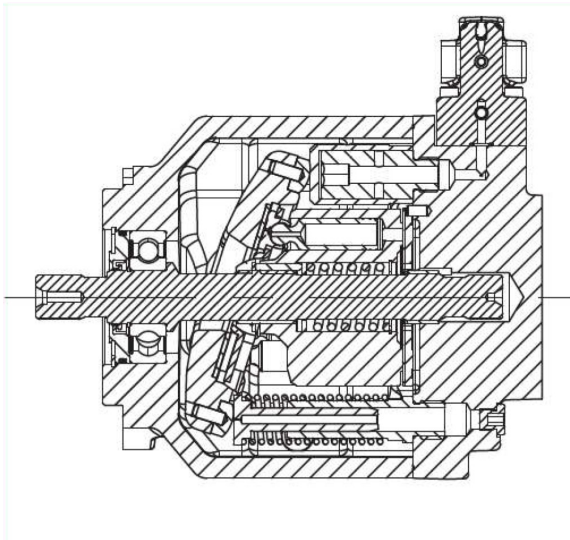


SMA2 Series

Axial Piston Pumps Variable Displacement



Axial piston pumps series SM A2 have been designed to operate in an open circuit. Control systems now available are making it easy to use these pumps in any application for industrial and mobile fields. Development of rotating groups, specifically designed, united to an accurate study of oil passage sections into the pumps, allow high speed rotation, like required by modern diesel engines, giving extreme reliability for working continuous pressure unitl 280 bar and until 350 bar for peak pressure. Control types allow a load-sensing or a constant pressure control over the pump. It is possible to couple tandem versions.

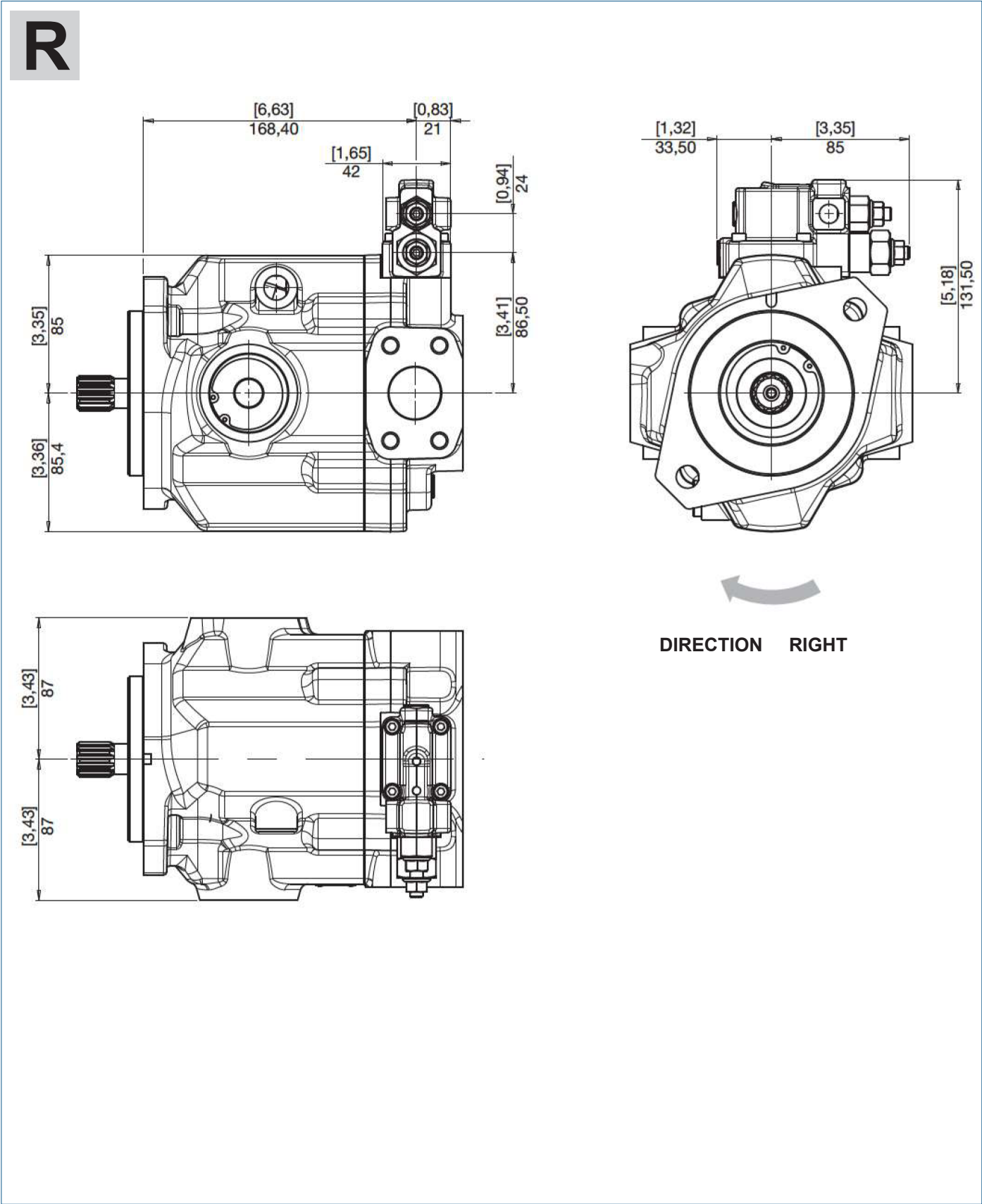
GROUP	NOMINAL DISPLACEMENT		CONTINUOUS		INTERMITTENT		PEAK		SPEED		WEIGHT	
									MAX	MIN		
	cm ³	in ³	bar	psi	bar	psi	bar	psi	min ⁻¹	min ⁻¹	kg	lbs
SMA2	20	1.22	280	4060	320	4640	350	5075	3300	500	18	39.7
	23	1.40										
	25	1.52										
	28	1.71										
	32	1.95										
	34	2.07										
	36	2.20										
	38	2.32										

SMA2 Series

Axial Piston Pumps Variable Displacement



DIMENSIONS

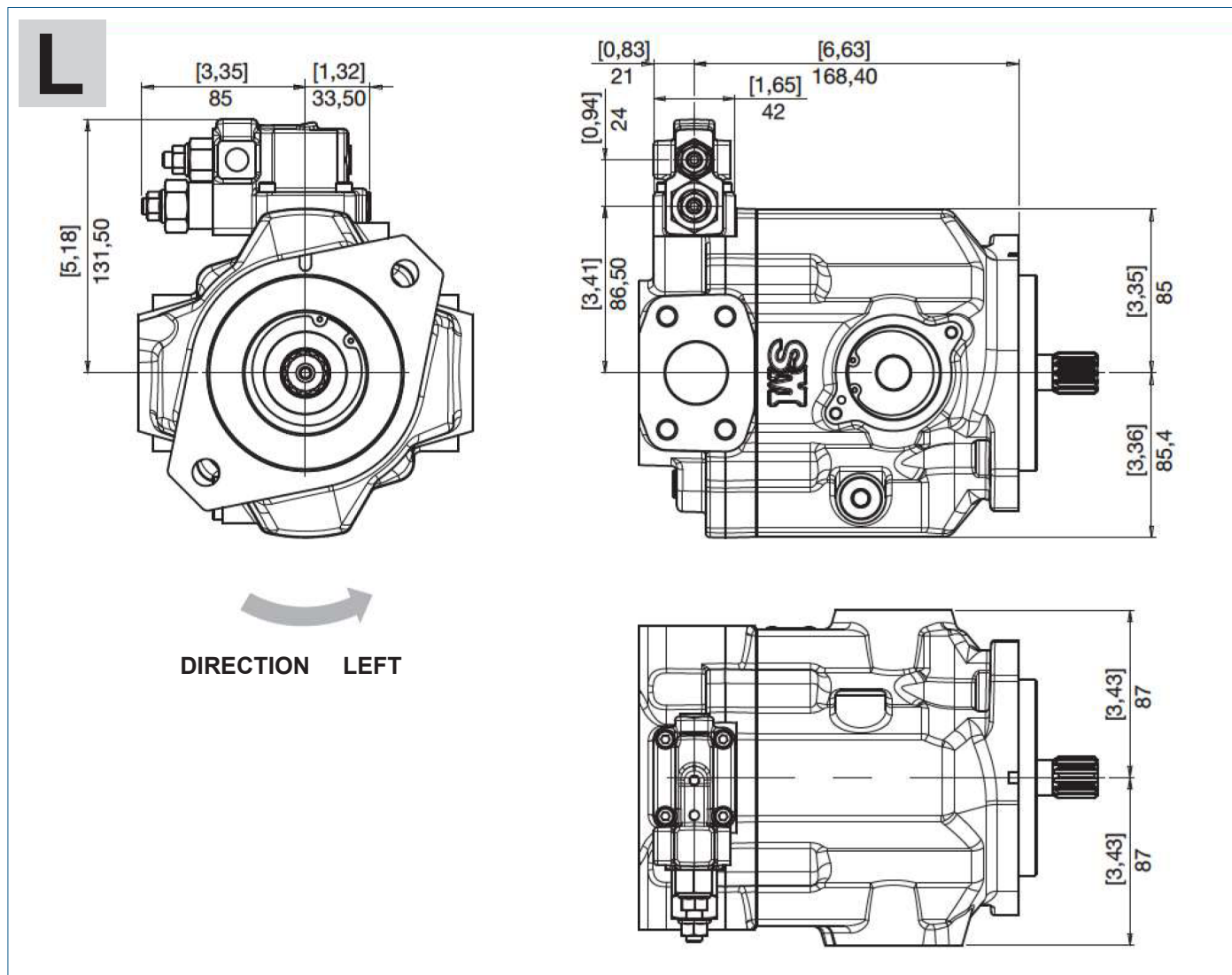


SMA2 Series

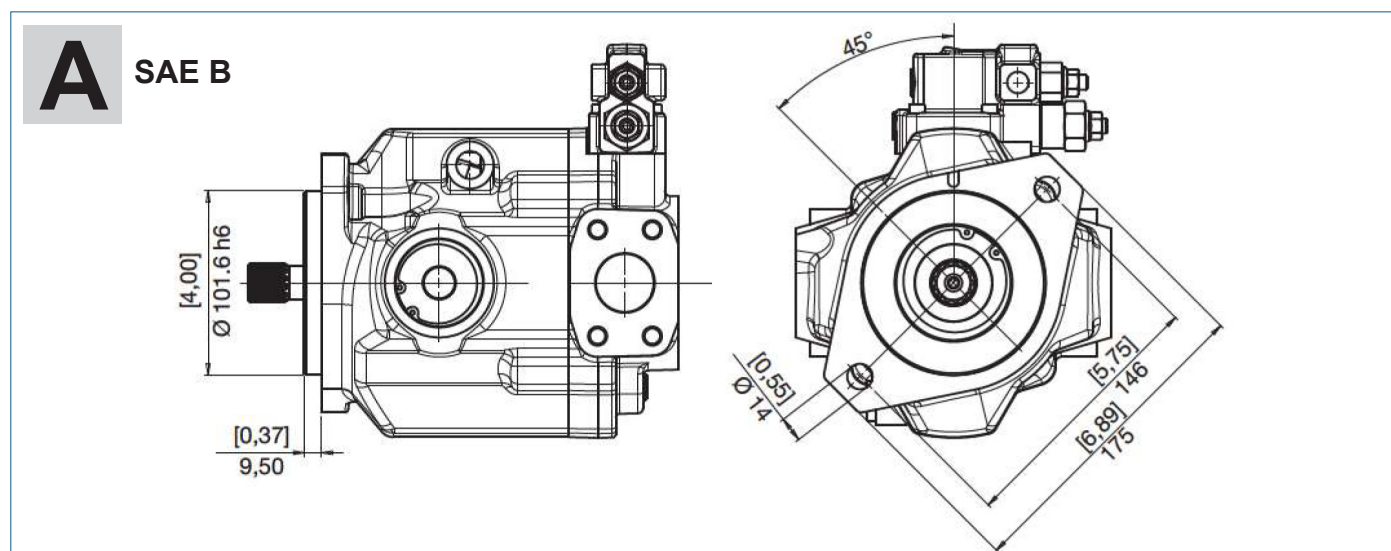
Axial Piston Pumps Variable Displacement



DIMENSIONS



FLANGES



SMA2 Series

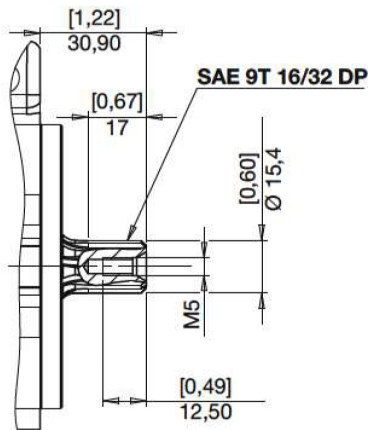
Axial Piston Pumps Variable Displacement



SPLINE SHAFTS

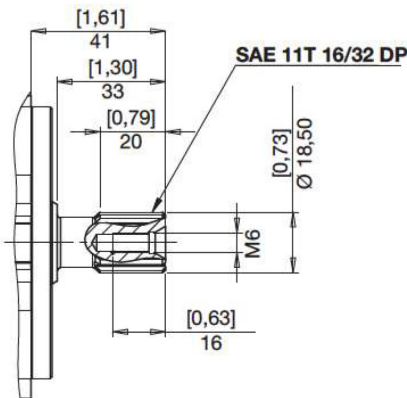
9

Max Torque 310 Nm



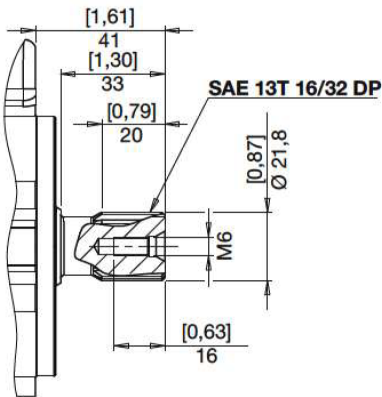
1

Max Torque 460 Nm



J

Max Torque 210 Nm

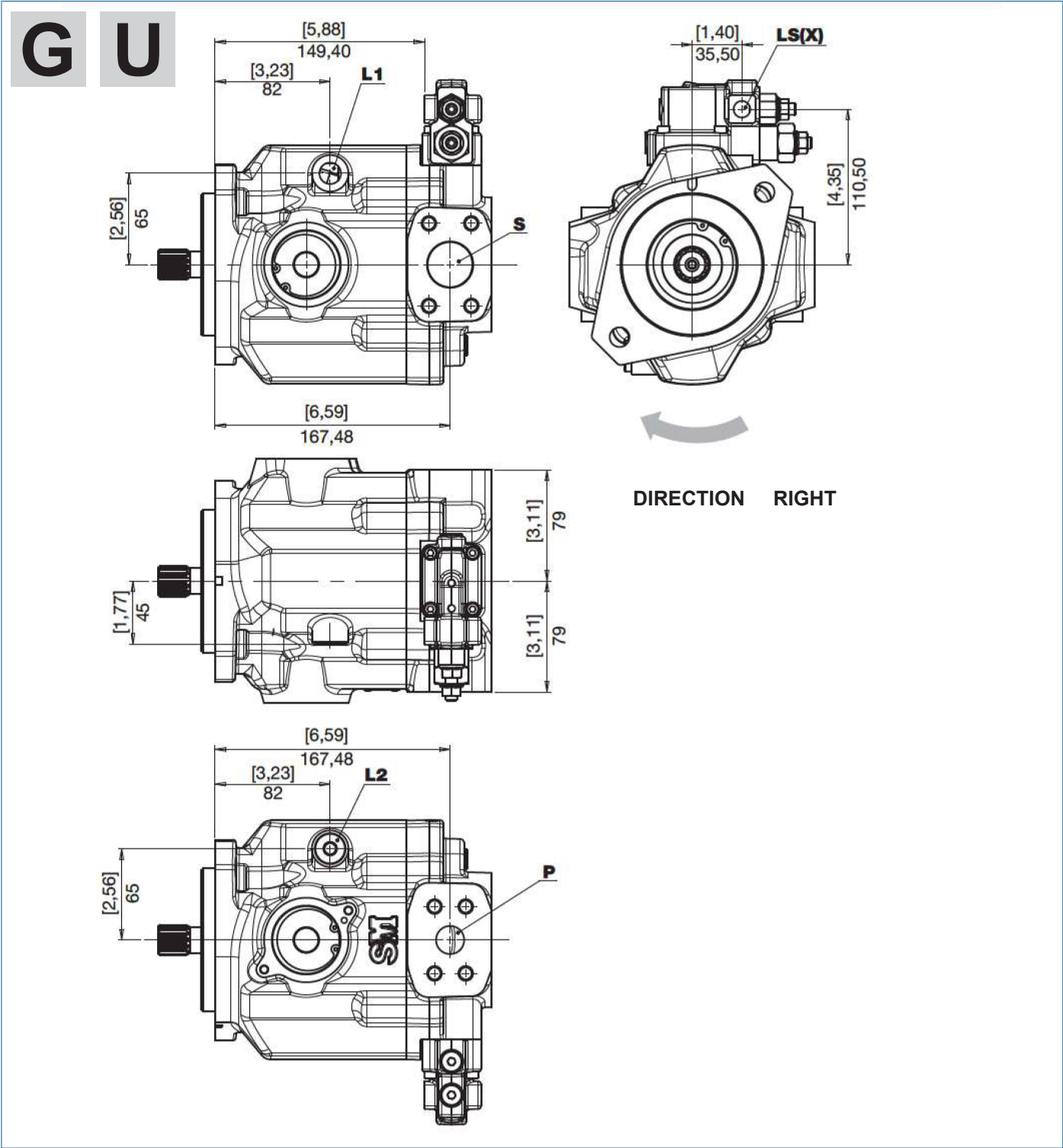


SMA2 Series

Axial Piston Pumps Variable Displacement



RIGHT VERSION PORTS



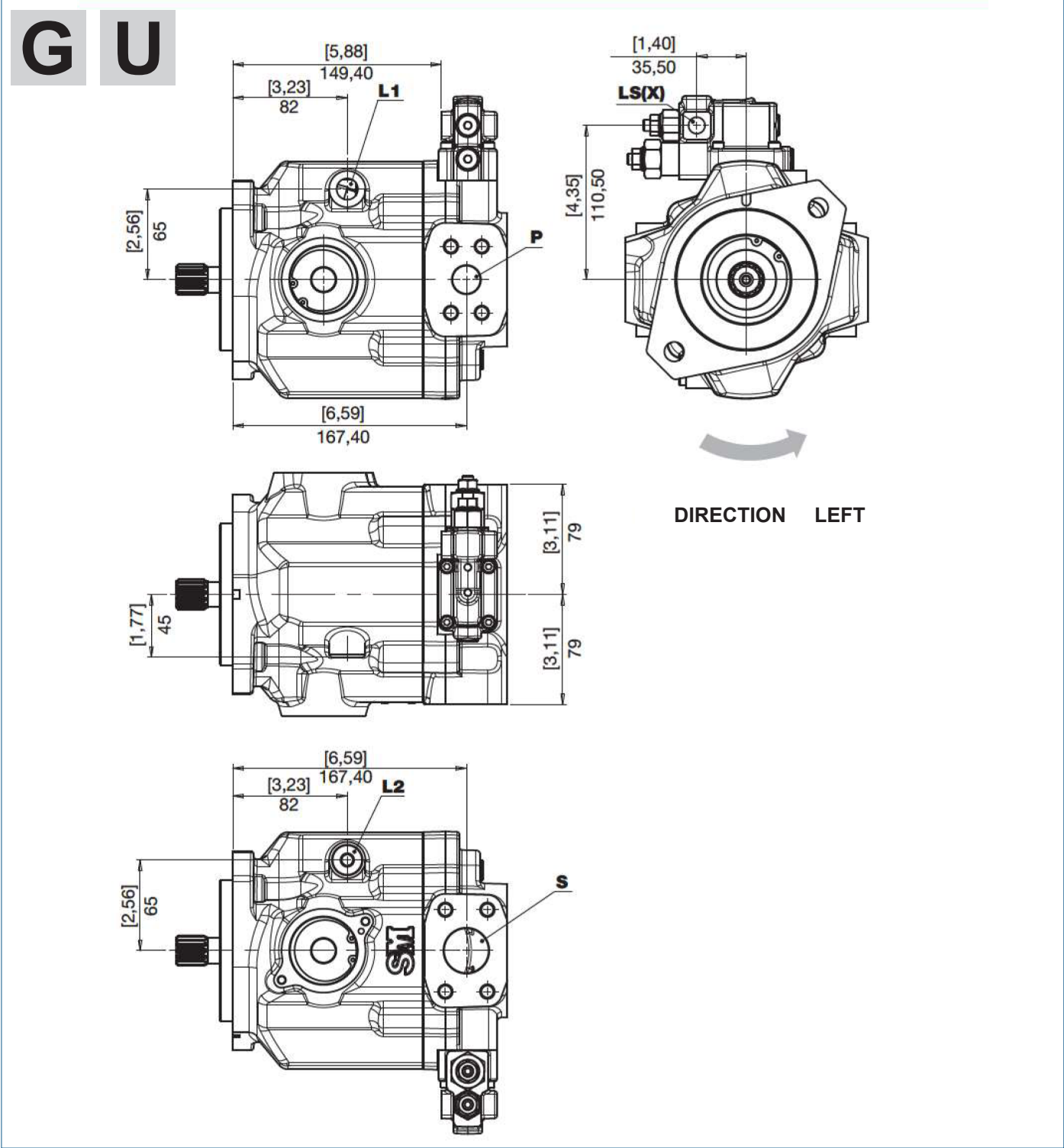
S	Feeding Pump Inlet	P	Output
L1 L2	Drain	LS(X)	Pilot

SMA2 Series

Axial Piston Pumps Variable Displacement



LEFT VERSION PORTS



S	Feeding Pump Inlet	P	Output
L1 L2	Drain	LS(X)	Pilot

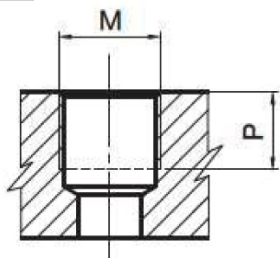
SMA2 Series

Axial Piston Pumps Variable Displacement



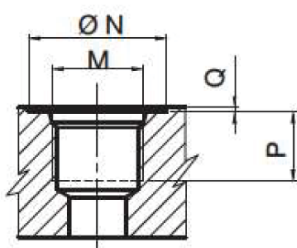
PORTS

G Lateral



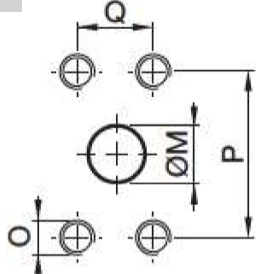
TYPE	M		P	
		Nm	mm	in
G1	1/8" GAS BSPP	8	8	0.31
G3	3/8" GAS BSPP	40	12	0.47

U Lateral



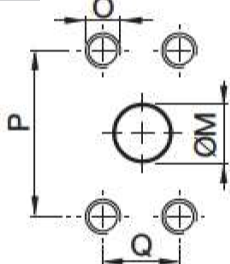
TYPE	SIZE	N		P		Q		M	
		mm	in	mm	in	mm	in		Nm
U2	1/4"	20	0.79	12	0.47	0.3	0.01	7/16-20 UNF	17
U3	3/8"	25	0.98	13	0.51	0.3	0.01	9/16-18 UNF	40

F Lateral



TYPE	SIZE	M		P		Q		O	
		mm	in	mm	in	mm	in		Nm
F6	3/4"	19.0	0.79	47.6	1.87	22.2	0.87	M10	38
F8	1-1/4"	30.5	1.34	58.7	2.31	30.2	1.19	M10	38

N Lateral



TYPE	SIZE	M		P		Q		O	
		mm	in	mm	in	mm	in		Nm
N6	3/4"	20.0	0.79	47.6	1.87	22.2	0.87	3/8"-16UNC-2B	38
N8	1-1/4"	30.5	1.34	58.7	2.31	30.2	1.19	7/16"-14UNC-2B	38

COMBINATIONS

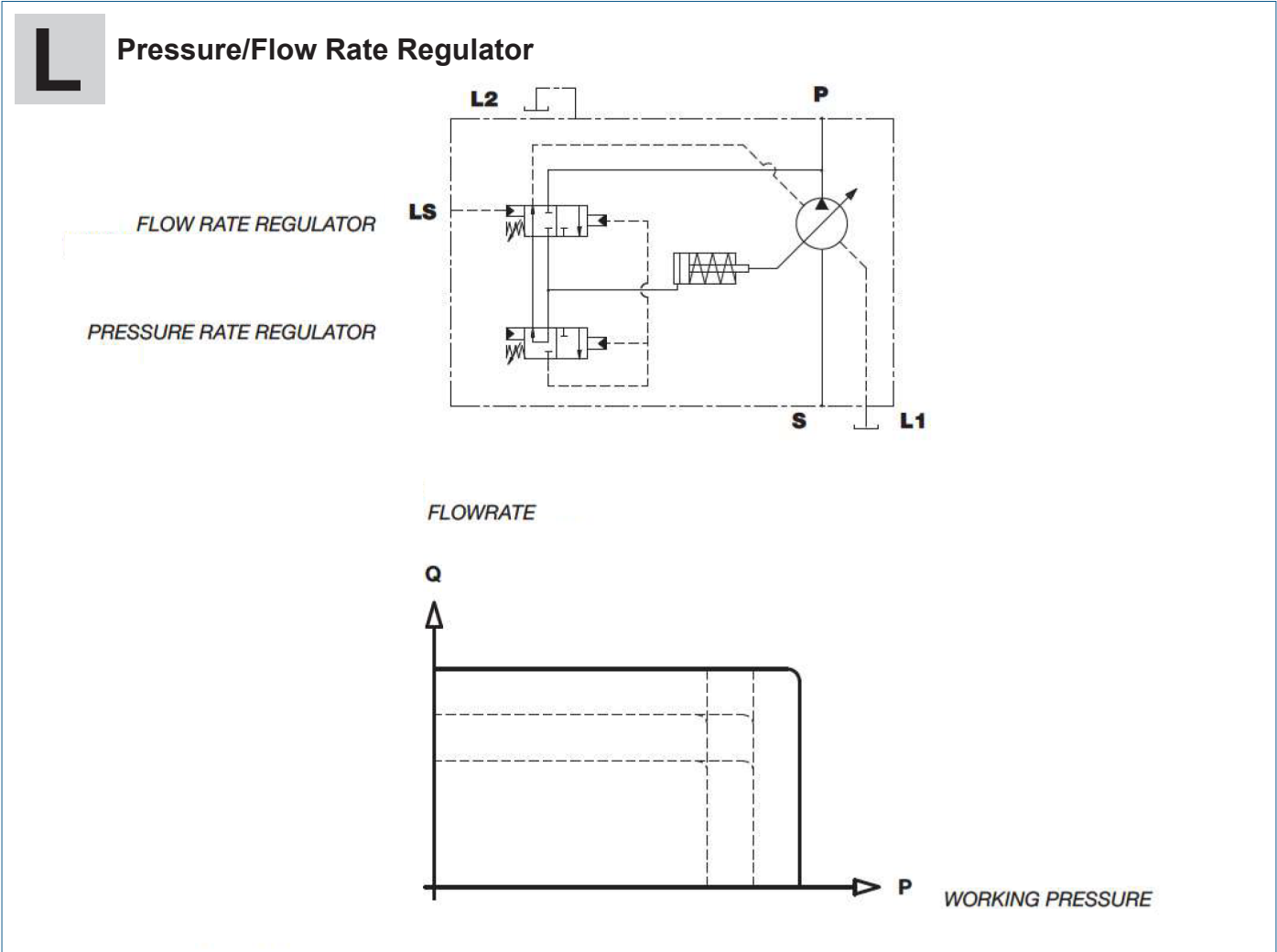
TYPE	S INLET	P OUTLET	L1 - L2 DRAIN	LS(X) PILOT
G	F8	F6	G3	G1
U	N8	N6	U3	U2

SMA2 Series

Axial Piston Pumps Variable Displacement



CONTROL SYSTEMS

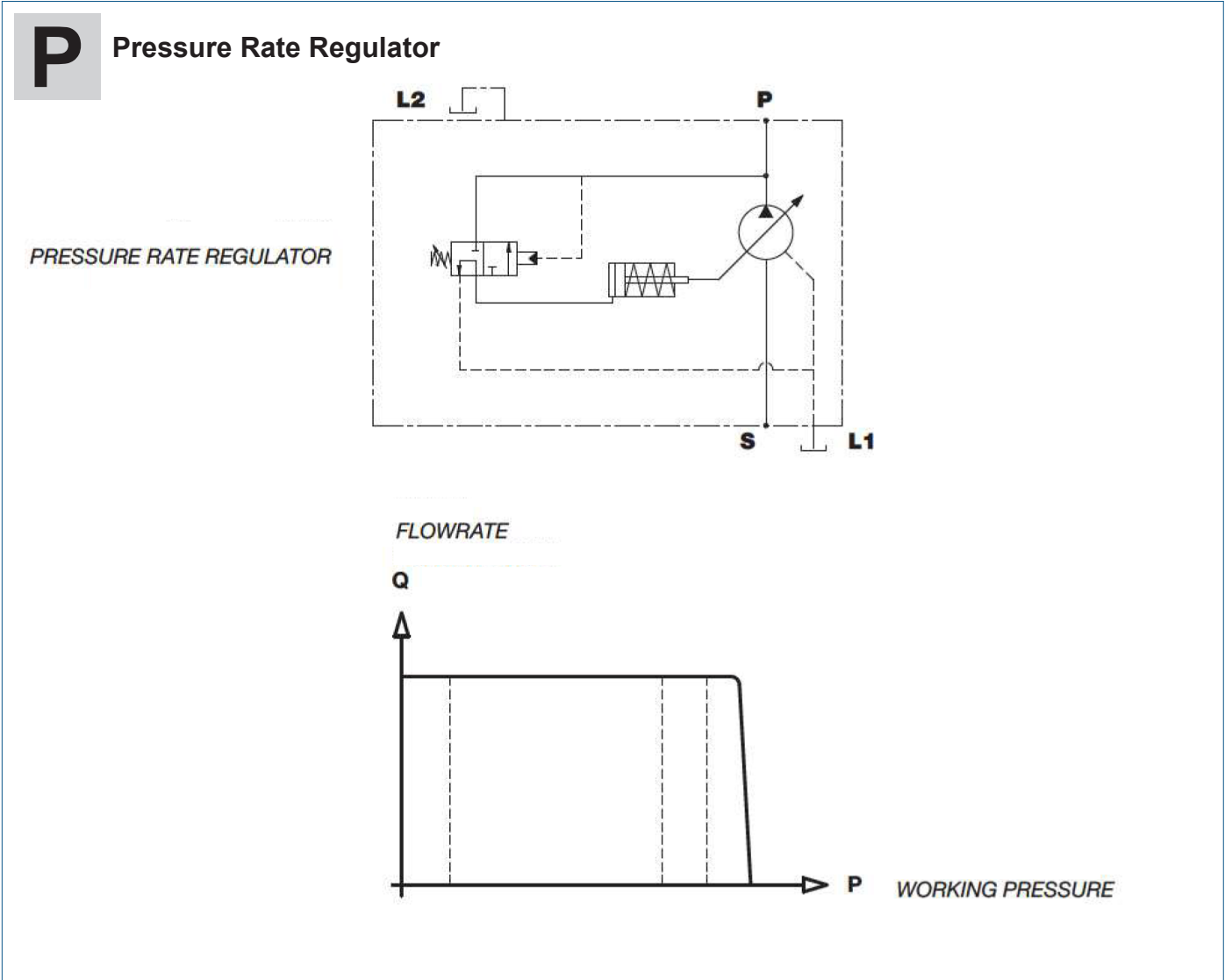


CONTROL SYSTEM SET

WORKING PRESSURE		PRESSURE DIFFERENTIAL ΔP		
bar	psi	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
315	4568	S	T	U

An external relief valve set at 10% above the pump pressure regulator must always be provided.

CONTROL SYSTEMS



CONTROL SYSTEM SET

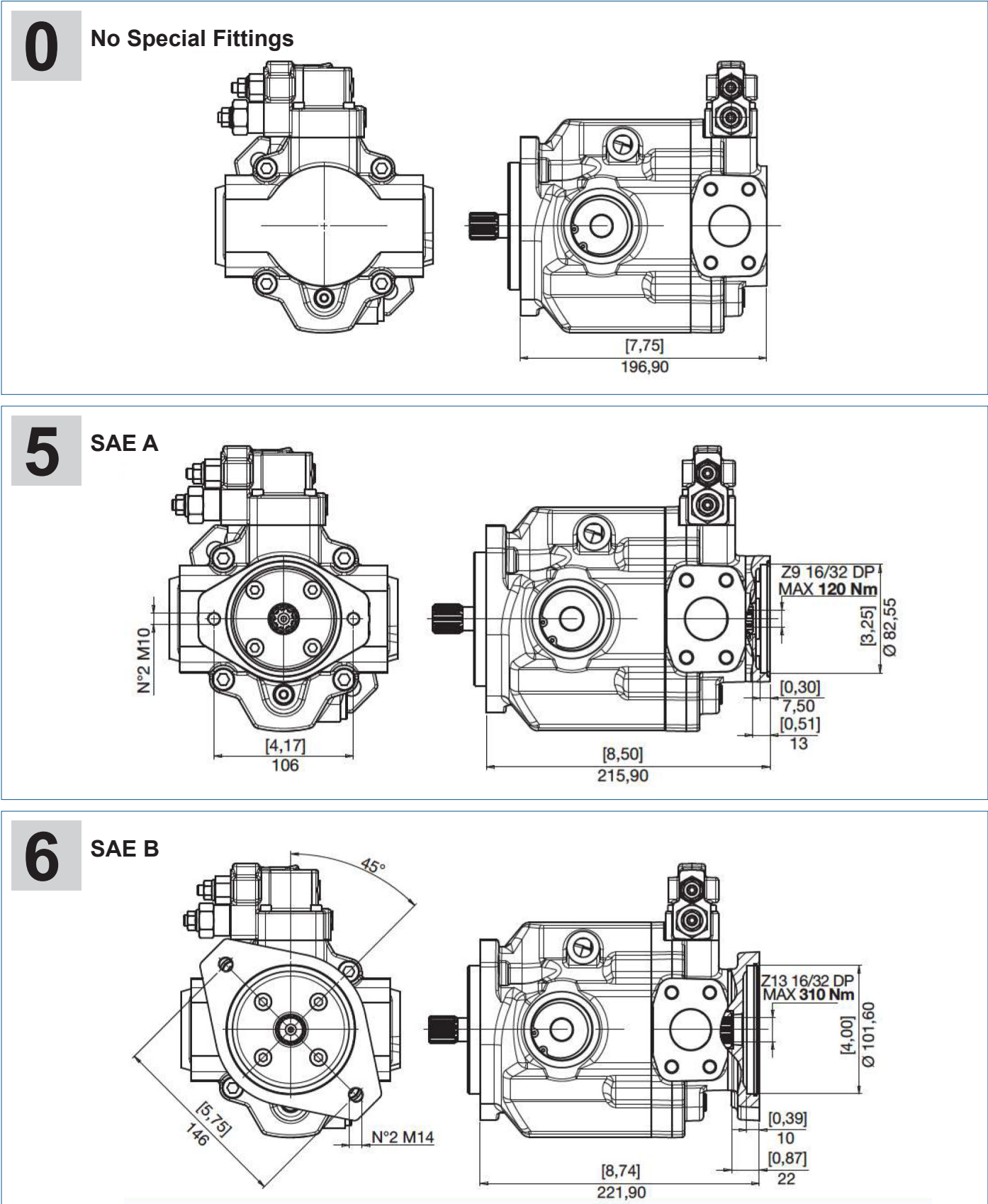
CODE	WORKING PRESSURE	
	bar	psi
D	180	2610
H	210	3045
N	250	3625
R	280	4060
V	315	4568

SMA2 Series

Axial Piston Pumps Variable Displacement



VERSION



SMA2 Series

Axial Piston Pumps Variable Displacement



HOW TO ORDER

MODEL CODE

1	2	3	4	5	6	7	8	9

1 - SERIES

SM A2	Variable displacement axial piston pump
-------	---

2 - DISPLACEMENT

20	Displacement 20 cm ³ / rev (1.22 in ³ / rev)
23	Displacement 23 cm ³ / rev (1.40 in ³ / rev)
25	Displacement 25 cm ³ / rev (1.52 in ³ / rev)
28	Displacement 28 cm ³ / rev (1.71 in ³ / rev)
32	Displacement 32 cm ³ / rev (1.95 in ³ / rev)
34	Displacement 34 cm ³ / rev (2.07 in ³ / rev)
36	Displacement 36 cm ³ / rev (2.20 in ³ / rev)
38	Displacement 38 cm ³ / rev (2.32 in ³ / rev)

3 - DIRECTION OF ROTATION

R	CW
L	CCW

4 - SHAFT PROFILE

9	Z13 16/32" DP
1	Z15 16/32" DP
J	Round Shaft Ø 22.22

5 - PORTS

G	BSPP Threads
U	UNF Threads

6 - CONTROL SYSTEMS

L	Pressure / Flow Rate Regulator
P	Pressure Rate Regulator

7 - CONTROL SYSTEMS SETTING

A	Refer to chart
---	----------------

8 - VERSION

0	No special fittings
5	SAE A
6	SAE B

9 - SPECIAL VERSIONS

SMA2 Series

Axial Piston Pumps Variable Displacement



MULTIPLE PUMPS

To order multiple pumps, duplicate the order code of the individual pumps as per example below:

