

A1VO: Highly economical load-sensing piston pump – The alternative to fixed pumps



The new A1VO 35cc variable displacement piston pump

Advantages (Load-Sensing System vs Open Center)

- ▶ Compact design due to integrated controller (mounted in the port plate)
- ▶ Reduced power losses
- ▶ Similar mounting space like an external gear pump
- ▶ Interchangeable due to mounting flanges similar to gear pumps
- ▶ High flexibility through interchangeable through drive adapters
- ▶ High self-priming speeds



Technical data

Size: 35 cm³
 Nominal pressure: 250 bar
 Maximum pressure: 280 bar
 Speed: 3,000 min-1

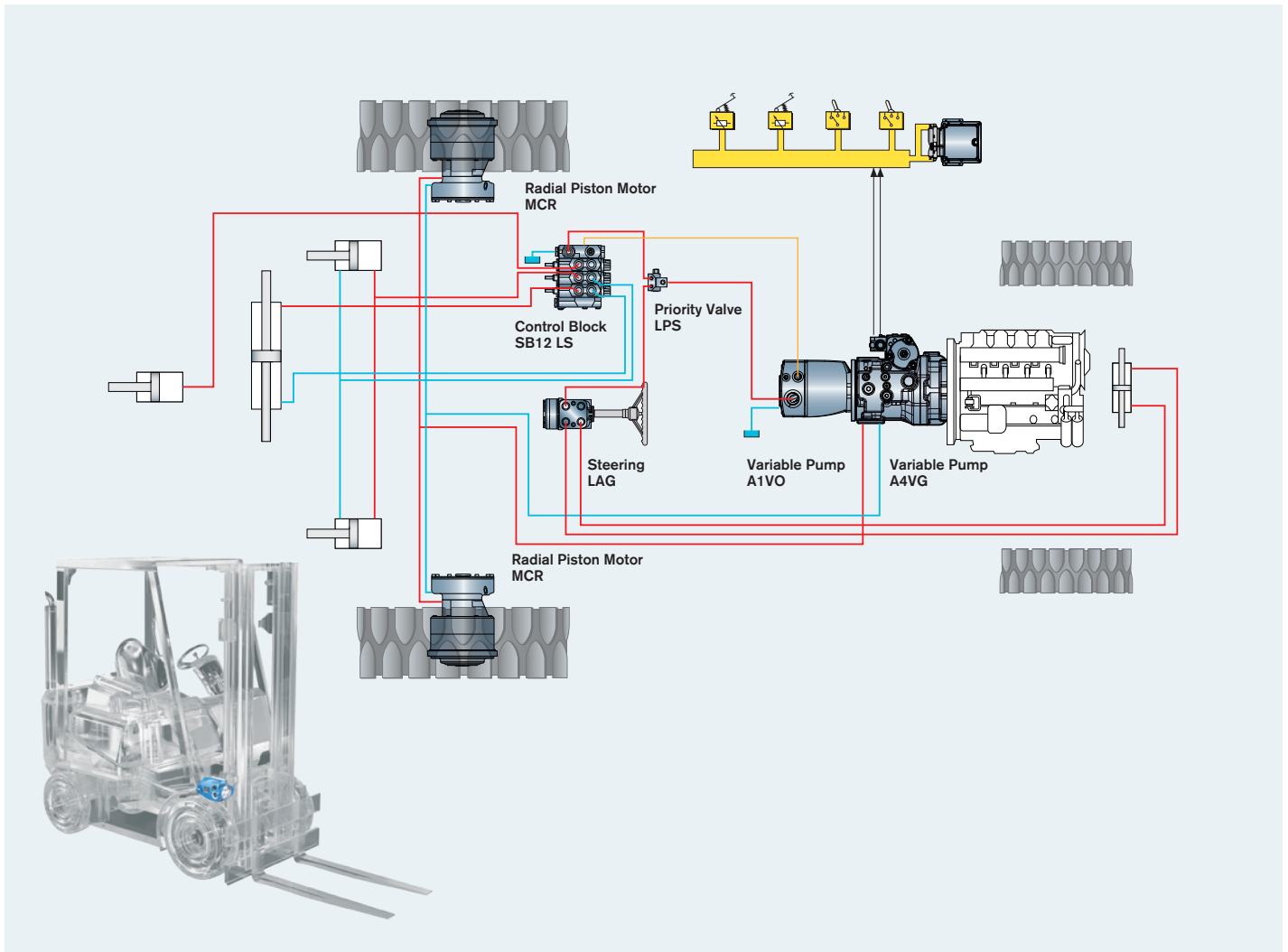
Through drives: Universal through drive makes it simple to change the through drive type without changing the part number

Hydraulic ports: Available with inch threads
 Mounting flange: SAE-B
 Shafts: 1" 15T

Data sheet: RE 92650



Open center system with load-sensing technology



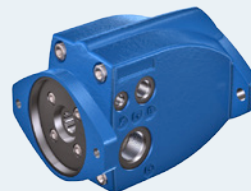
without Through Drive



with Through Drive



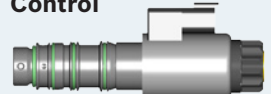
Rear View



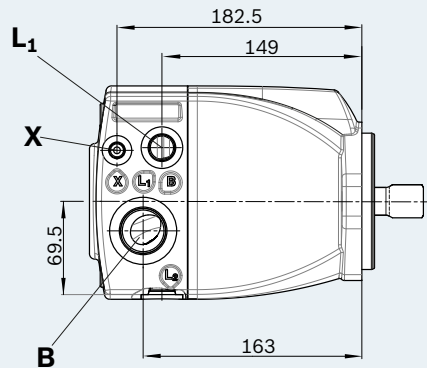
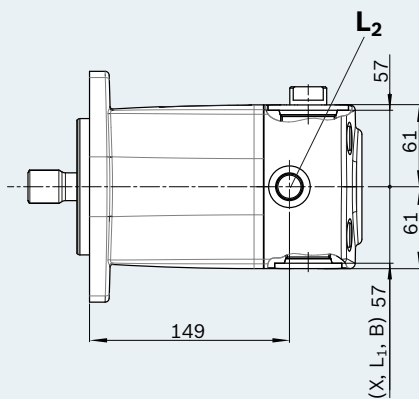
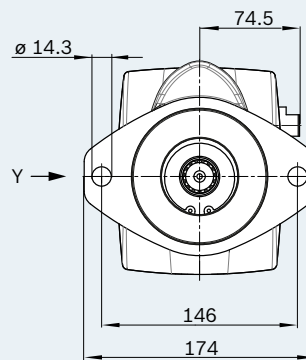
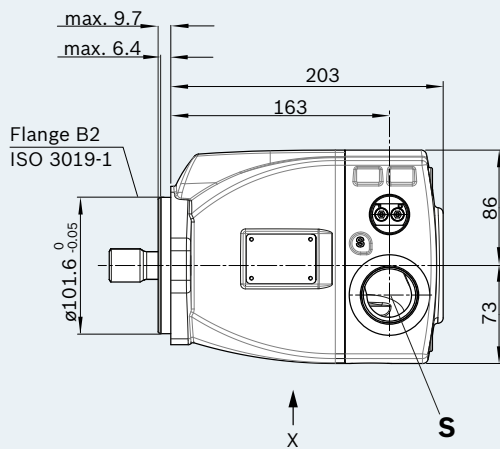
Standard Control



Electro-hydraulic Control



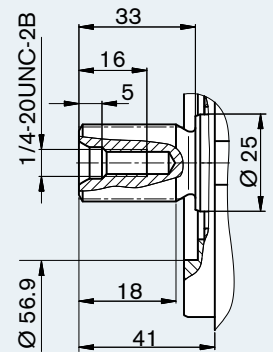
Dimensions and mechanical interfaces designed similar to fixed gear pumps



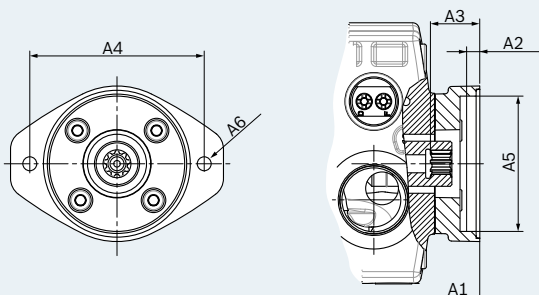
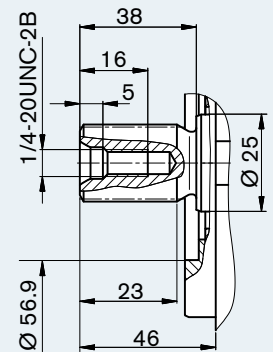
Drive shafts

Splined shaft SAE J744

S4 7/8 in 13T 16/32DP



S5 1 in 15T 16/32DP



Short description	NG	A1	A2	A3	A4	A5	A6 ³⁾
A2S2	35	227.6	8	32	106.4	82.55	M10 x 1.5
A2S3	35	227.6	8	38	106.4	82.55	M10 x 1.5
A2S4	35	227.6	8	41	106.4	82.55	M10 x 1.5
B2S4	35	227.6	8	41	146	101.6	M12 x 1.75
B2S5	35	227.6	8	46	146	101.6	M12 x 1.75

Ordering code / Standard program

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18		
A1V	O	035		C	2		0	/	10	B		V	B2		1		0	-	0

Control devices

																	035	
04	Pressure controller															●	DR	
	Proportional electric override with integrated solution											$U = 12V$	○	D3				
												$U = 24V$	○	D4				
	with load-sensing															●	DRS0	

Connector for solenoids

07	Without connectore (without solenoid, only for hydraulic control)															●	0
	DEUTSCH – molded connector, 2-pin, without suppressor diode															○	P

Configuration of ports and fastening threads

10	ANSI, port threads with O-ring seal according to ISO 11926, metric fastening thread on through drive version																B
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Direction of rotation

11	Viewed on drive shaft											clockwise		R
												counter-clockwise		L

Drive Shafts (for permissible input torque)

14	Splined shaft ANSI B92.1a											7/8 in 13T 16/32 DP, not for through drive		S4
												1 in 15T 16/32 DP		S5

Through drive

16	SAE J744 flange			Coupling for splined shaft ¹⁾				
	Diameter	Fitting variant Symbol ²⁾	Designation	Diameter	Designation			
Without through drive								
82-2 (A)	∞	A2	5/8 in 9T 16/32 DP	S2	○	A2S2		
			3/4 in 11T 16/32 DP	S3	○	A2S3		
			7/8 in 13T 16/32 DP	S4	○	A2S4		
101-2 (B)	∞	B2	7/8 in 13T 16/32 DP	S4	○	B2S4		
			1in 15T 16/32 DP	S5	●	B2S5		

● = Available
○ = On request

1) Coupling for splined shaft according to ANSI B92.1a.

2) Configuration of securing holes when viewed to through drive, with service line port B on right.

Available Part Number to Order:

R902530919	A1VO035DRS0C200/10BRVB2S5100000-0
R902530920	A1VO035DRS0C200/10BLVB2S5100000-0
R902531519	A1VO035DRS0C200/10BLVB2S4100000-0
R902531511	A1VO035DRS0C200/10BRVB2S4100000-0

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