

Ordering code

01	02	03	04	05	06	07	08	09	10	11	12	13
A7V	O		/	63	-	V	B	01				

Axial piston unit

01	Bent-axis design, variable, nominal pressure 350 bar, maximum pressure 400 bar	A7V
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Operating mode

02	Pump, open circuit	O
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Size (NG)

03	Geometric displacement V_g (cm ³), see "Technical data" on page 7	28	55	80	107	160
	For sizes 250, 355 and 500, see data sheet 92203					

Control device

		28	55	80	107	160		
04	Power controller without power override	●	●	●	●	●	LR	
	with pressure cut-off	●	●	●	●	●	LRD	
	with stroke limiter							
	negative control $\Delta p = 25$ bar	-	●	●	●	●	LRH1	
	with pressure cut-off and stroke limiter							
	negative control $\Delta p = 25$ bar	-	●	●	●	●	LRDH1	
	with pressure cut-off and load sensing	-	●	●	●	●	LRDS	
	Power controller with hydraulically proportional power override (only available for clockwise rotation and with port plate 02)							
	with load sensing	-	●	●	-	-	LA1S	
	with load sensing and hydraulically proportional LS-override	-	●	●	-	-	LA1S5	
Pressure controller		●	●	●	●	●	DR	
	remotely controlled	●	●	●	●	●	DRG	
	with load sensing	-	●	●	●	●	DRS	
Proportional control hydraulic	Positive control $\Delta p = 10$ bar	●	●	●	●	●	HD1	
	with pressure cut-off, remotely controlled	●	●	●	●	●	HD1G	
Proportional control electrical	Positive control $U = 24$ V	●	●	●	●	●	EP2	

Series

05	Series 6, index 3	63
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Direction of rotation

		28 to 160	
06	Viewed on drive shaft	clockwise	● R
		counter-clockwise	● L

Sealing material

07	FKM (fluoroelastomer)	V
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Drive shaft

		28 to 160	
08	Splined shaft DIN 5480	●	Z
	Parallel keyed shaft according to DIN 6885	●	P

Mounting flange

09	ISO 3019-2; 4-hole	B
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Port plate for working lines

10	SAE flange ports A and S at rear (metric fastening thread)	01
	SAE flange ports A and S at side (available for power controllers LA1S and LA1S5 only, metric fastening thread)	02

● = Available - = Not available = Preferred program

01	02	03	04	05	06	07	08	09	10	11	12	13
A7V	O			/	63	-	V		B	01		

Connector for solenoids¹⁾ (see page 40)

11	Without connector (without solenoid, with hydraulic control only; without code)	
	DEUTSCH molded connector, 2-pin – without suppressor diode	P

Standard / special version

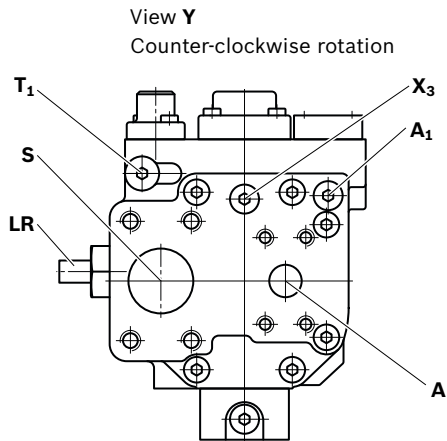
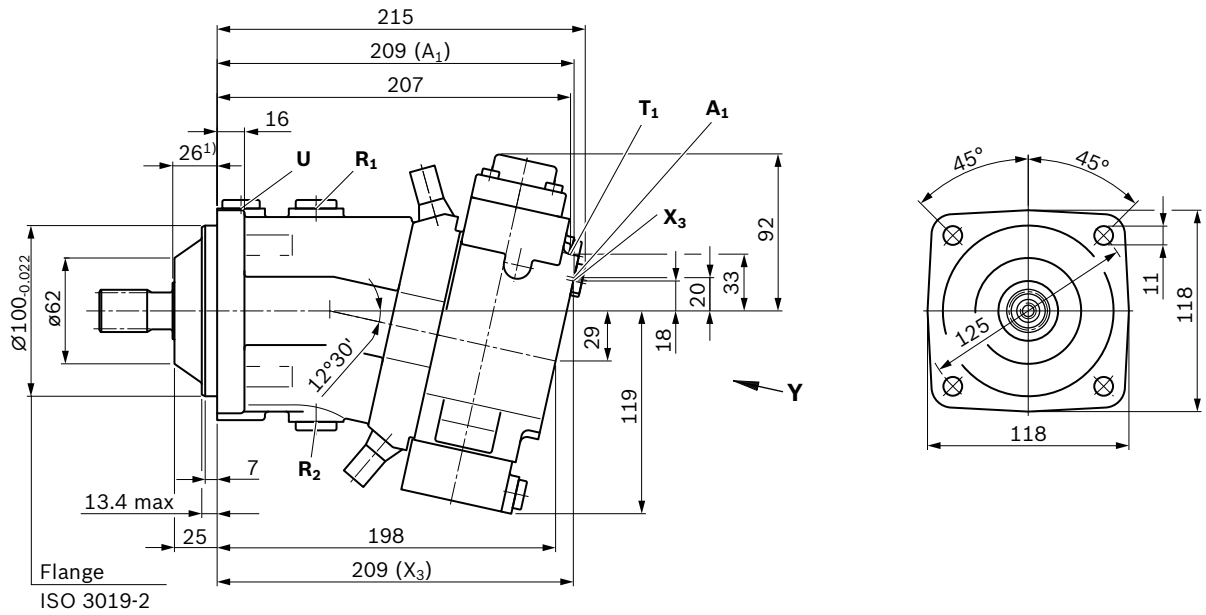
12	Standard version (without code)	
	Special version	-S

● = Available - = Not available = Preferred program

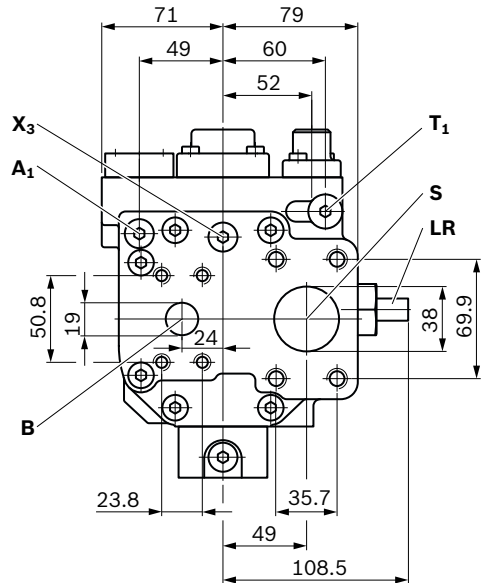
Dimensions, size 28

LR – Power controller without power override

All of the variants of the controllers on page 23 are shown for the clockwise direction of input rotation (view Y)

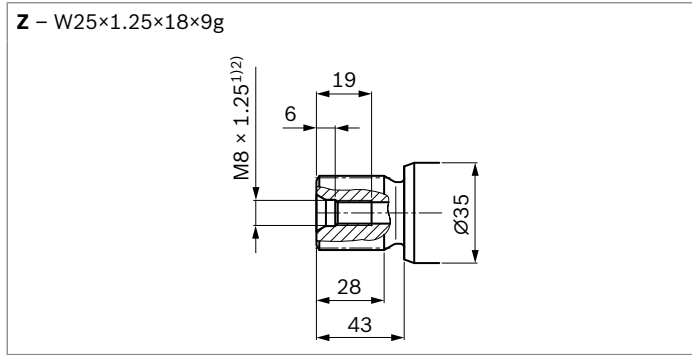


View Y
Clockwise rotation

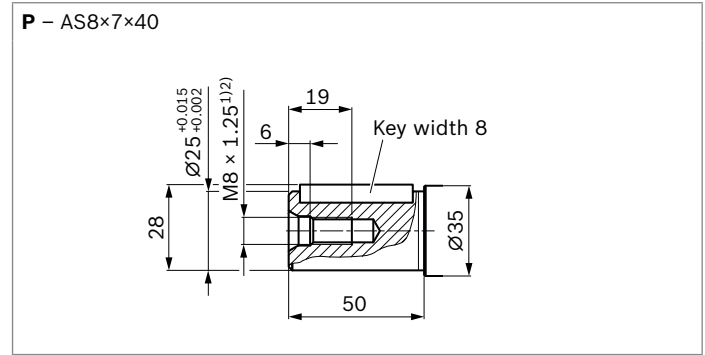


1) To shaft collar

▼ Splined shaft DIN 5480

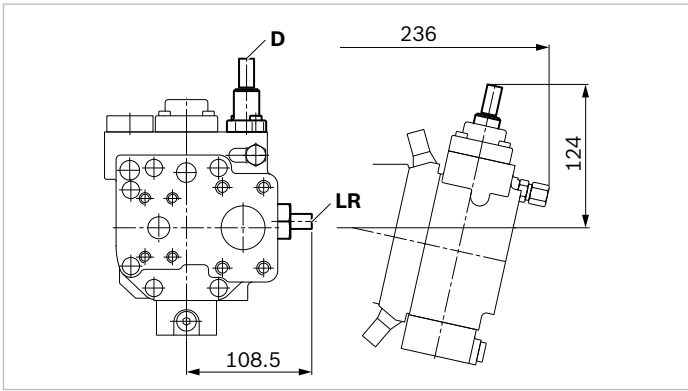


▼ Parallel keyed shaft DIN 6885

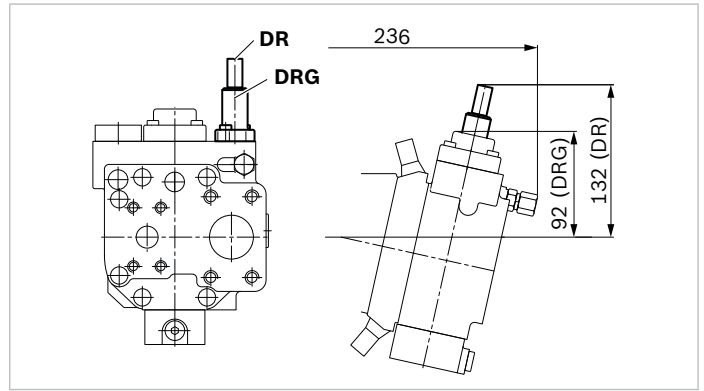


Ports	Standard	Size ²⁾	$p_{\max \text{ abs}}$ [bar] ³⁾	Status
A (B)	Working port (high-pressure series) fastening thread	SAE J518 ⁴⁾ DIN 13	3/4 in M10 × 1.5; 17 deep	400 O
S	Suction port (standard series) fastening thread	SAE J518 ⁴⁾ DIN 13	1 1/2 in M12 × 1.75; 20 deep	2 O
U	Bearing flushing	DIN 3852 ⁵⁾	M16 × 1.5; 12 deep	2 X
R₁, R₂	Air bleed	DIN 3852 ⁵⁾	M18 × 1.5; 12 deep	2 X
A₁	Measuring high pressure	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400 X
T₁	Control fluid drain	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400 X ⁶⁾
X₃	Override	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400 X
Y₃	External control pressure	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	40 X
X₁	Pilot pressure	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	40 O
M₁	Control pressure measurement	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400 X

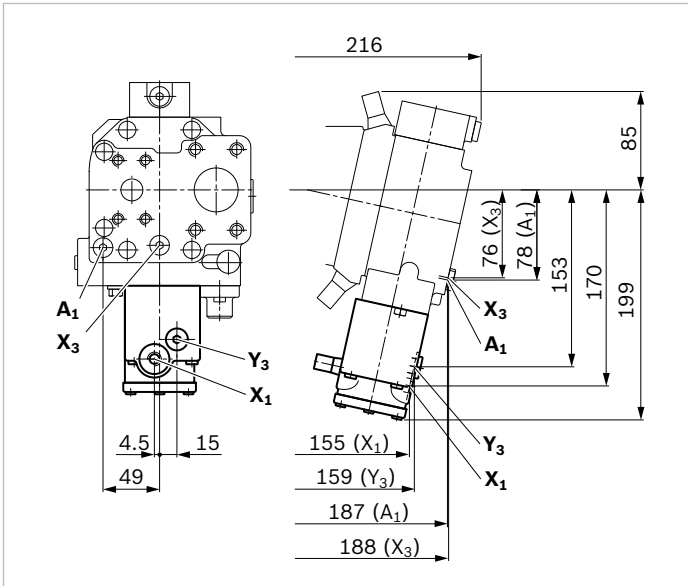
▼ **LRD** – Power controller with pressure cut-off



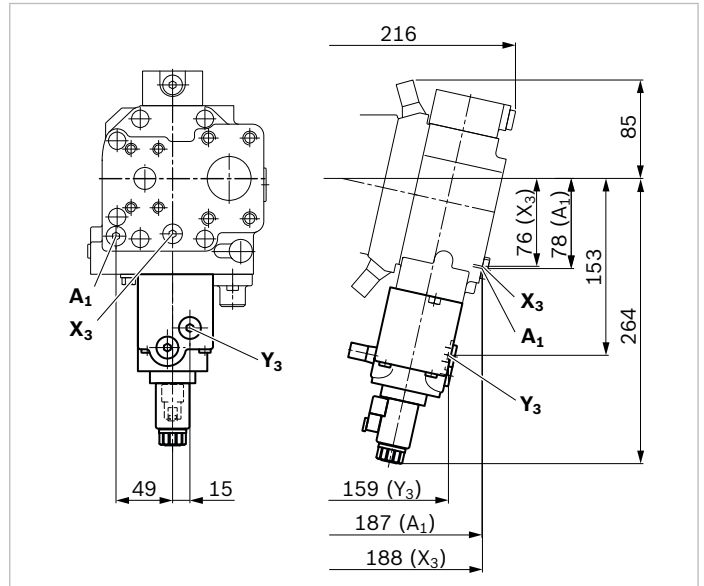
▼ **DR/DRG** – Pressure controller/pressure controller remotely controlled



▼ **HD1, HD1G** – Proportional hydraulic control, positive control, and variant with pressure cut-off, remotely controlled



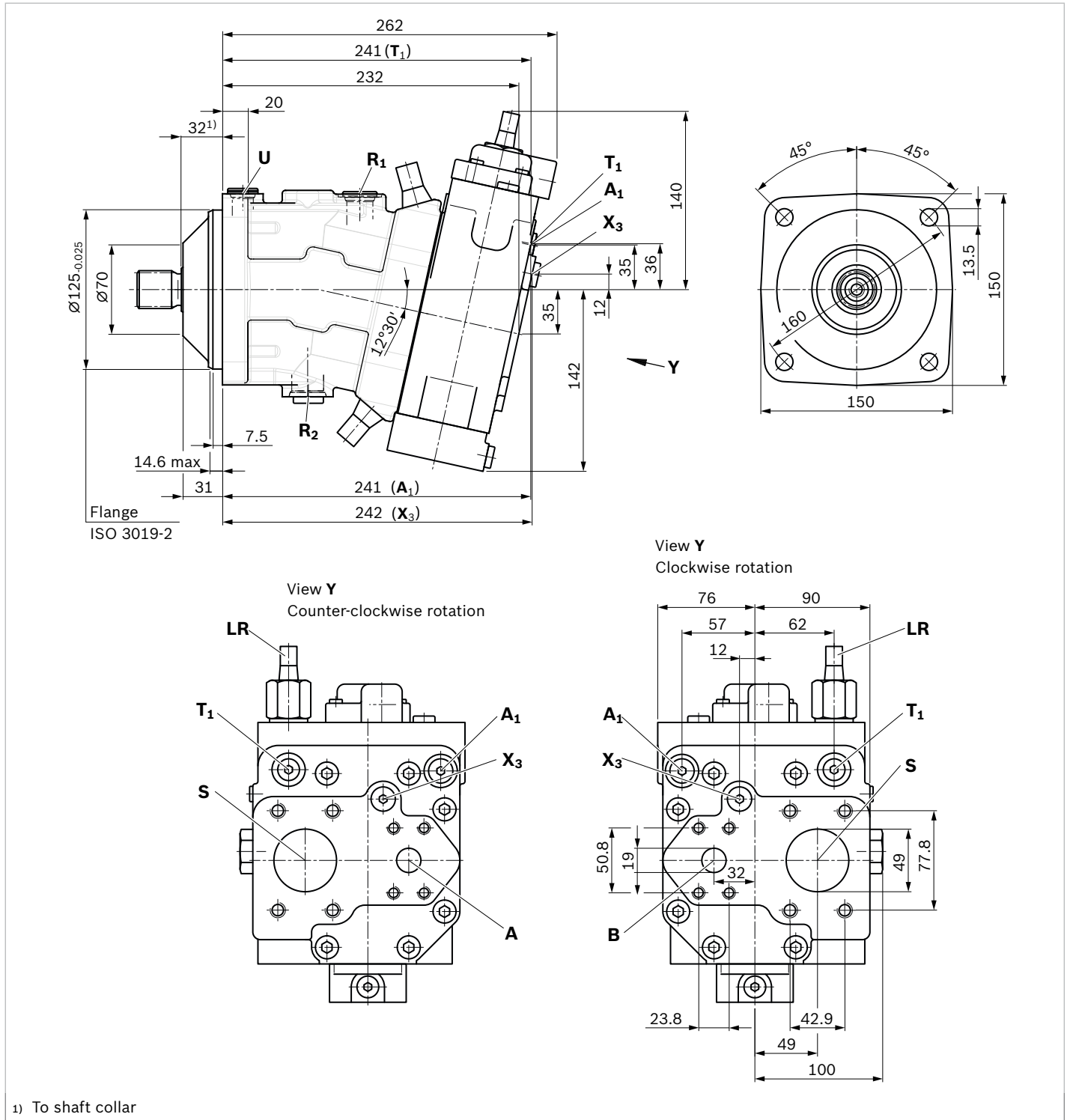
▼ **EP2** – Proportional control electric, positive control



Dimensions, size 55

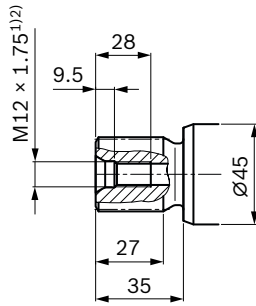
LR – Power controller without power override

All of the variants of the controllers on pages 26 and 27 are shown for the clockwise direction of input rotation (view Y)



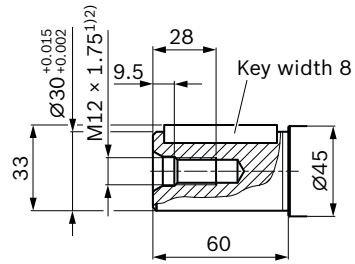
▼ Splined shaft DIN 5480

Z – W30×2×14×9g



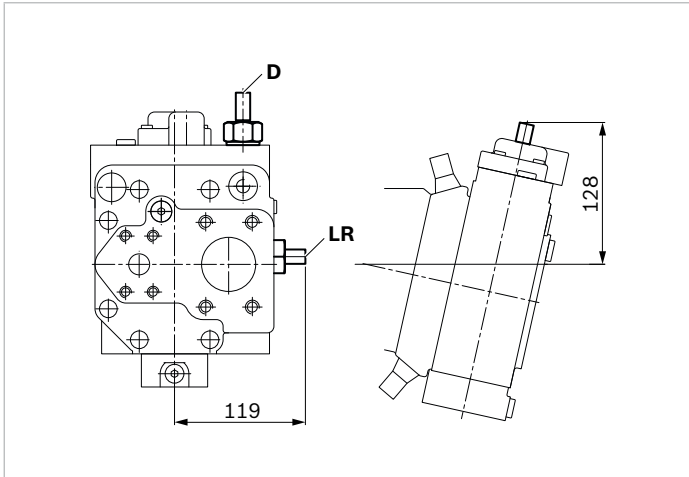
▼ Parallel keyed shaft DIN 6885

P – AS8×7×50

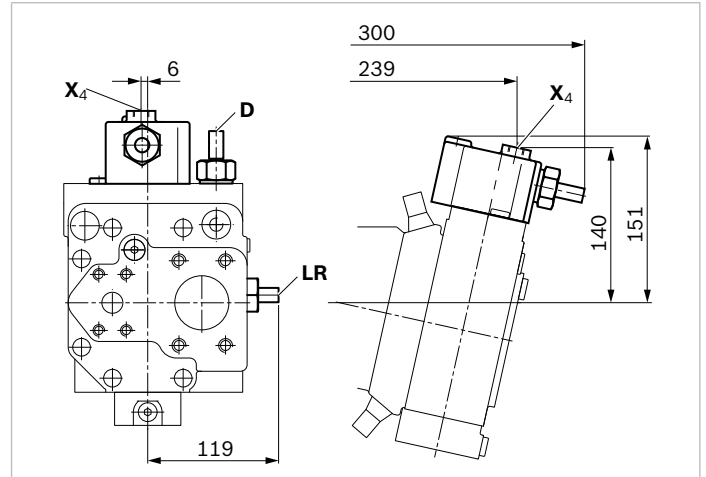


Ports		Standard	Size ²⁾	$p_{\max \text{ abs}}$ [bar] ³⁾	Status
A (B)	Working port (high-pressure series) fastening thread	SAE J518 ⁴⁾ DIN 13	3/4 in M10 x 1.5; 17 deep	400	O
S	Suction port (standard series) fastening thread	SAE J518 ⁴⁾ DIN 13	2 in M12 x 1.75; 20 deep ²⁾	2	O
U	Bearing flushing	DIN 3852 ⁵⁾	M18 x 1.5; 12 deep	2	X
R₁, R₂	Air bleed	DIN 3852 ⁵⁾	M18 x 1.5; 12 deep	2	X
R₁	Air bleed (LA1S only.)	DIN 3852 ⁵⁾	M22 x 1.5; 15.5 deep	2	X
R₂	Air bleed (LA1S only.)	DIN 3852 ⁵⁾	M27 x 2; 19 deep	2	X
A₁	Measuring high pressure	DIN 3852 ⁵⁾	M14 x 1.5; 12 deep	400	X
T₁	Control fluid drain	DIN 3852 ⁵⁾	M12 x 1.5; 12 deep	400	X ⁶⁾
X₃	Override	DIN 3852 ⁵⁾	M14 x 1.5; 12 deep	400	X
Y₃	External control pressure	DIN 3852 ⁵⁾	M14 x 1.5; 12 deep	40	X
X₁	Pilot pressure	DIN 3852 ⁵⁾	M14 x 1.5; 12 deep	40	O
X₄	Load pressure	DIN 3852 ⁵⁾	M14 x 1.5; 12 deep	400	O
M₁	Control pressure measurement	DIN 3852 ⁵⁾	M12 x 1.5; 12 deep	400	X

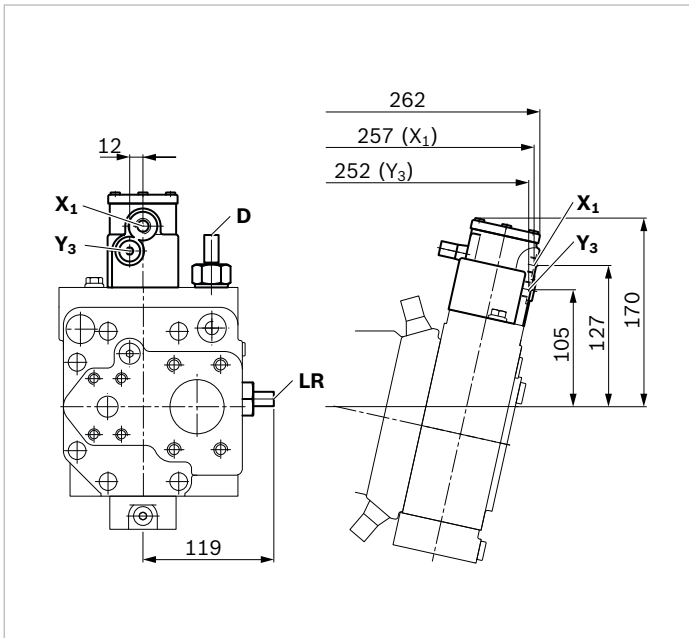
▼ **LRD** – Power controller with pressure cut-off



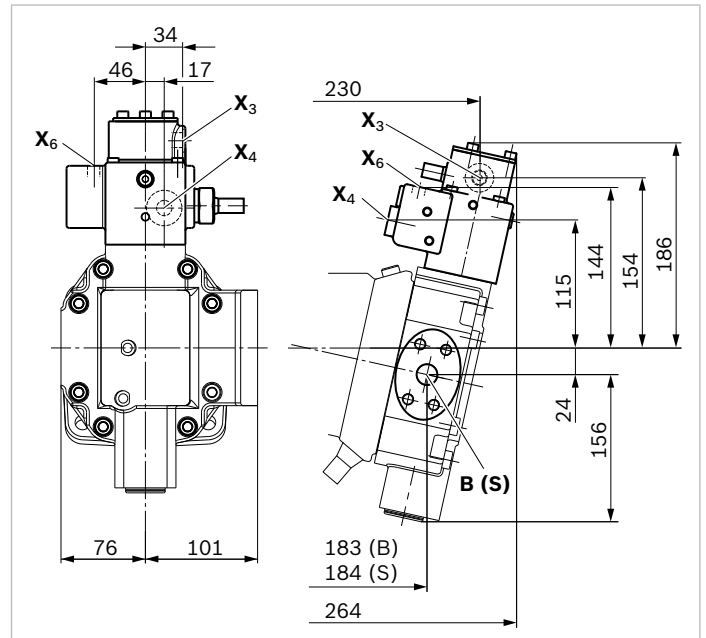
▼ **LRDS** – Power control with pressure cut-off and load sensing



▼ **LRDH1** – Power control with pressure cut-off and stroke limiter

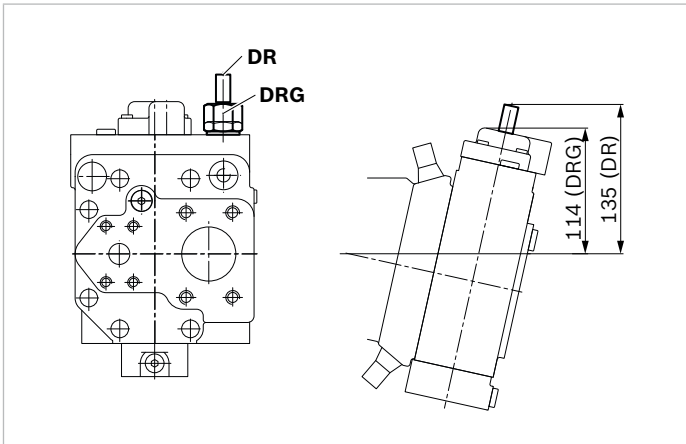


▼ **LA1S** – Power control with load sensing,
LA1S5 – Power control with load sensing and hydraulically proportional LS-override

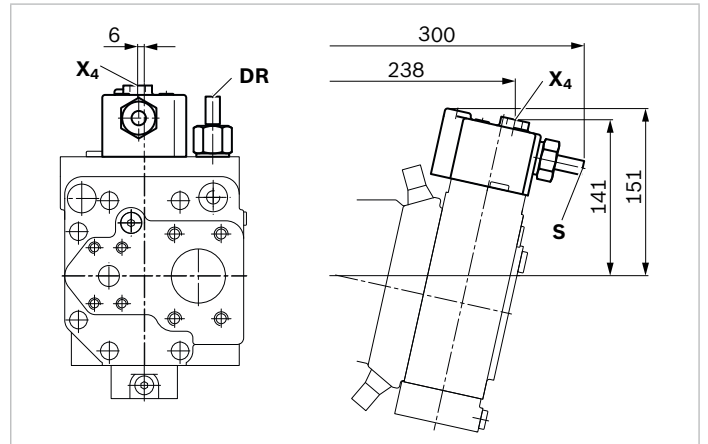


Port **X₆** with version LA1S5 only

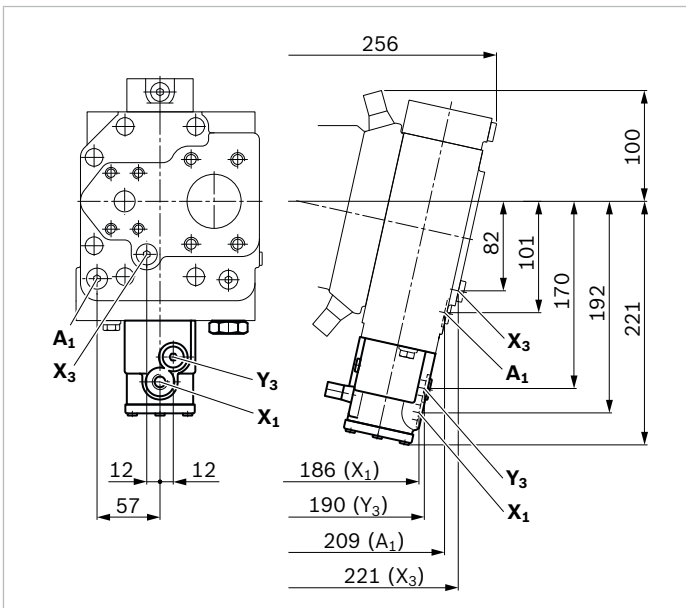
▼ **DR/DRG** – Pressure controller/pressure controller remotely controlled



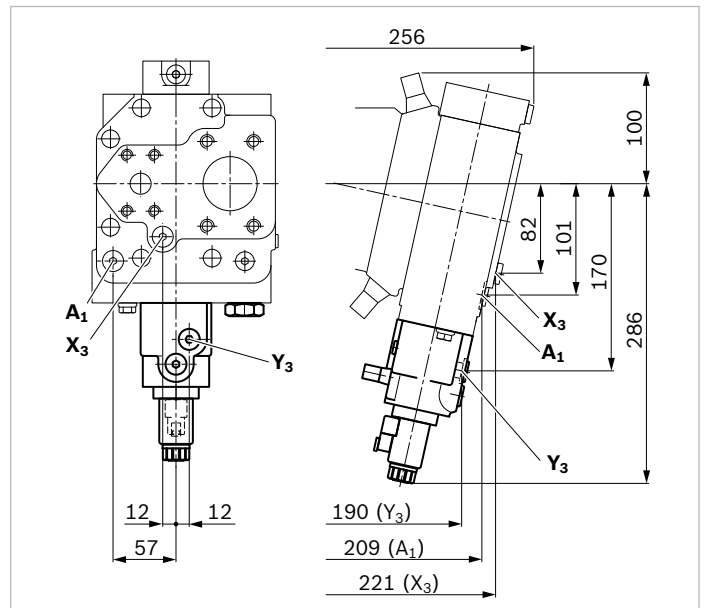
▼ **DRS** – Pressure controller with load sensing



▼ **HD1, HD1G** – Proportional hydraulic control, positive control, and variant with pressure cut-off, remotely controlled



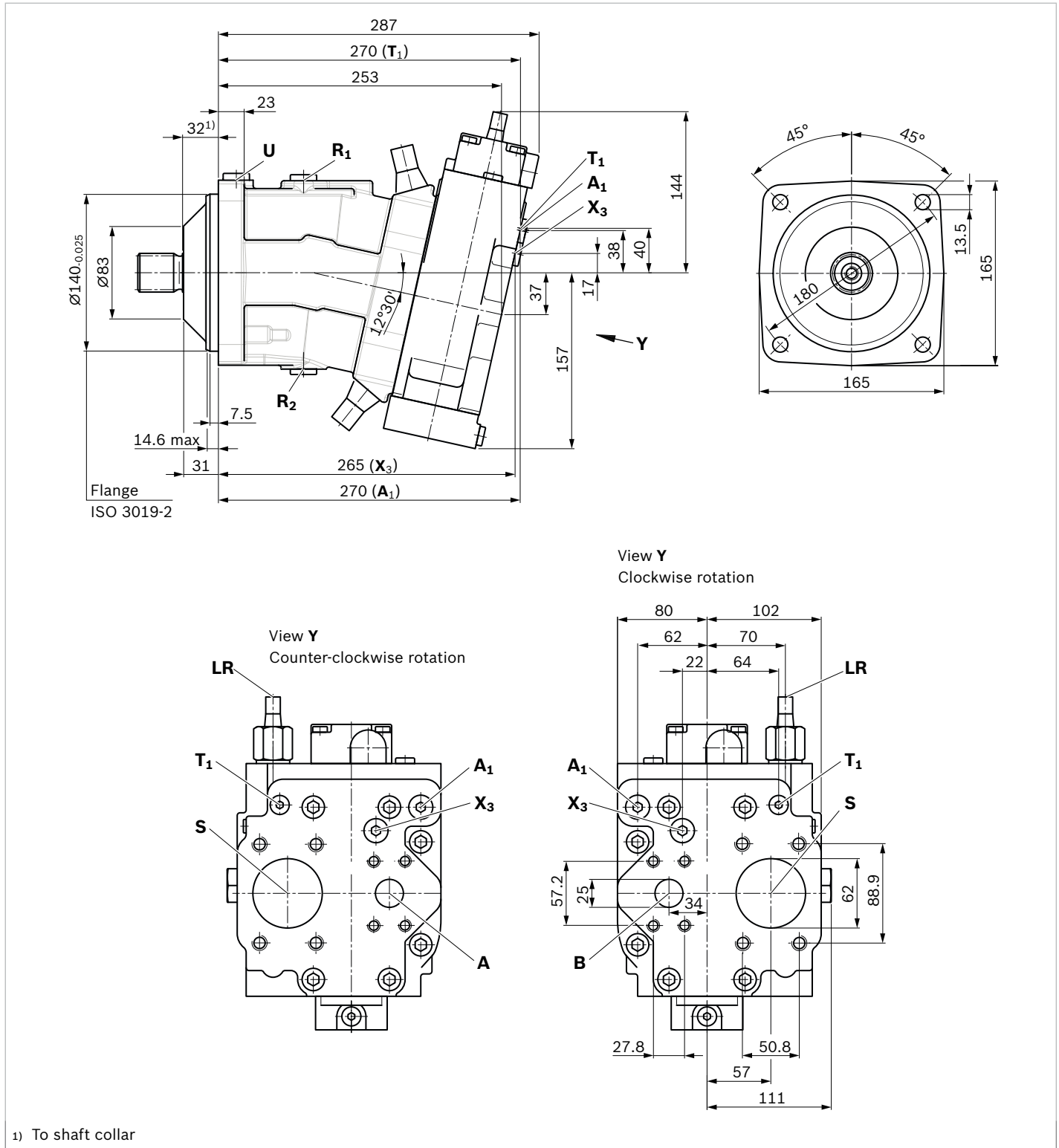
▼ **EP2** – Proportional control electric, positive control



Dimensions, size 80

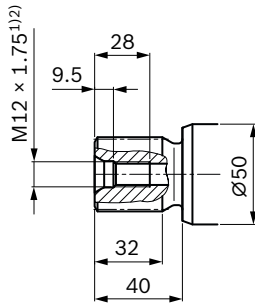
LR – Power controller without power override

All of the variants of the controllers on pages 30 and 31 are shown for the clockwise direction of input rotation (view Y)



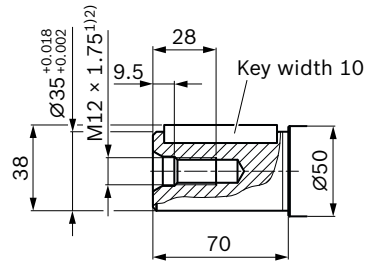
▼ Splined shaft DIN 5480

Z – W35×2×16×9g



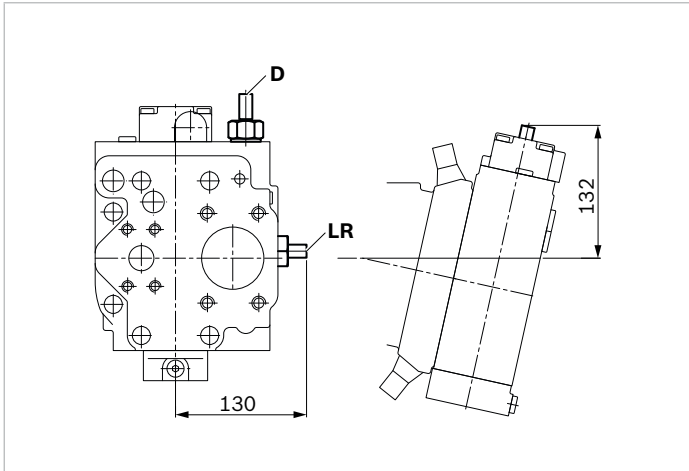
▼ Parallel keyed shaft DIN 6885

P – AS10×8×56

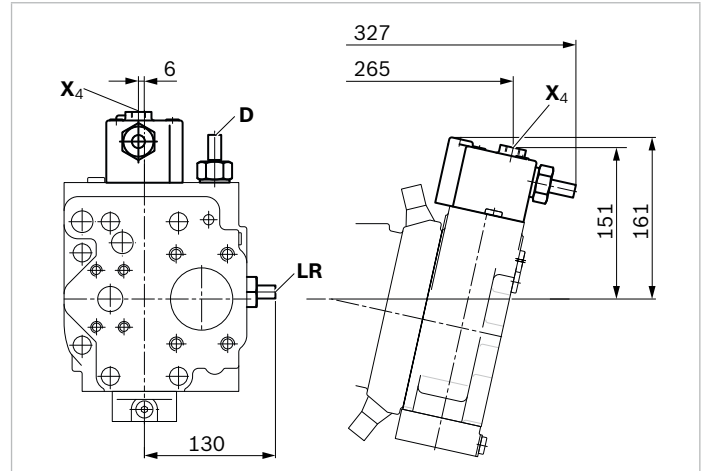


Ports	Standard	Size ²⁾	$p_{\max \text{ abs}}$ [bar] ³⁾	Status
A (B)	SAE J518 ⁴⁾ DIN 13	1 in M12 × 1.75; 17 deep	400	O
S	SAE J518 ⁴⁾ DIN 13	2 1/2 in M12 × 1.75; 17 deep	2	O
U	DIN 3852 ⁵⁾	M18 × 1.5; 12 deep	2	X
R₁, R₂	DIN 3852 ⁵⁾	M18 × 1.5; 12 deep	2	X
R₁	DIN 3852 ⁵⁾	M22 × 1.5; 15.5 deep	2	X
R₂	DIN 3852 ⁵⁾	M27 × 2; 19 deep	2	X
A₁	DIN 3852 ⁵⁾	M16 × 1.5; 12 deep	400	X
T₁	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400	X ⁶⁾
X₃	DIN 3852 ⁵⁾	M16 × 1.5; 12 deep	400	X
Y₃	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	40	X
X₁	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	40	O
X₄	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	400	O
M₁	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400	X

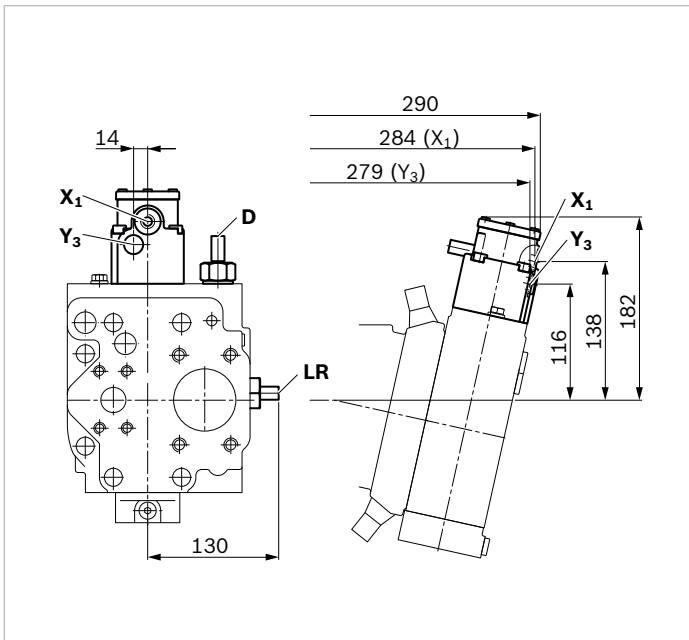
▼ **LRD** – Power controller with pressure cut-off



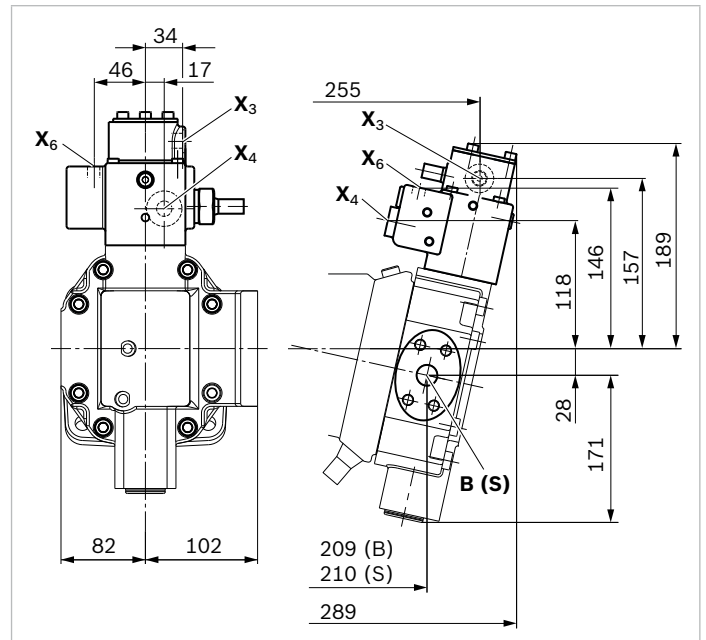
▼ **LRDS** – Power control with pressure cut-off and load sensing



▼ **LRDH1** – Power control with pressure cut-off and stroke limiter

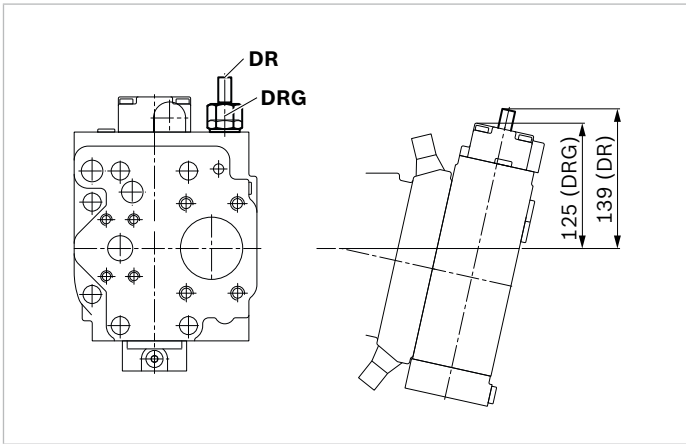


▼ **LA1S** – Power control with load sensing,
LA1S5 – Power control with load sensing, can be overridden on a hydraulically proportional basis

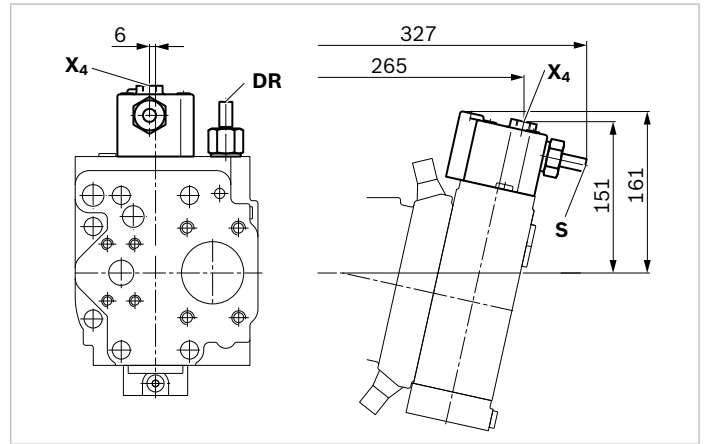


Port **X₆** with version LA1S5 only

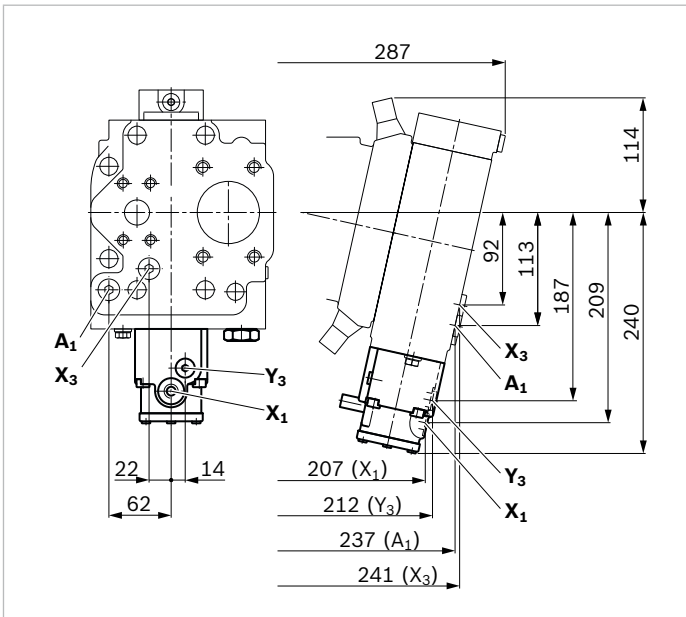
▼ **DR/DRG** – Pressure controller/pressure controller remotely controlled



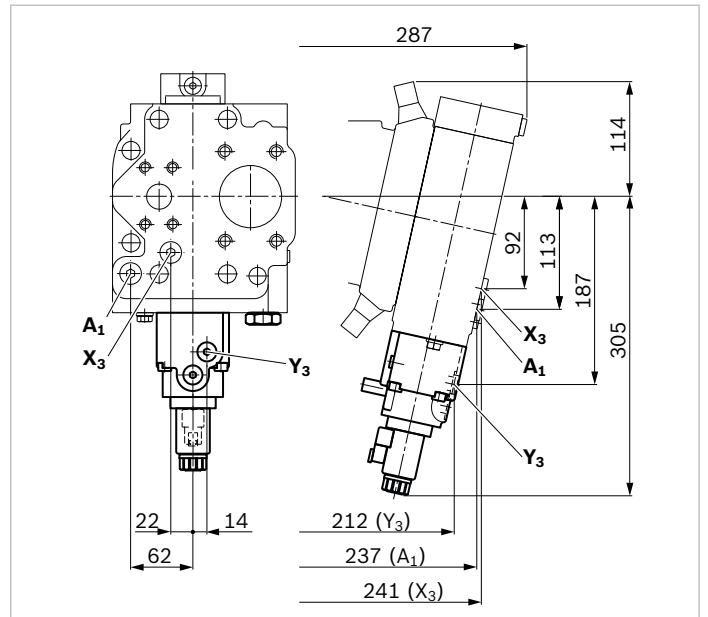
▼ **DRS** – Pressure controller with load sensing



▼ **HD1, HD1G** – Proportional hydraulic control, positive control, and variant with pressure cut-off, remotely controlled



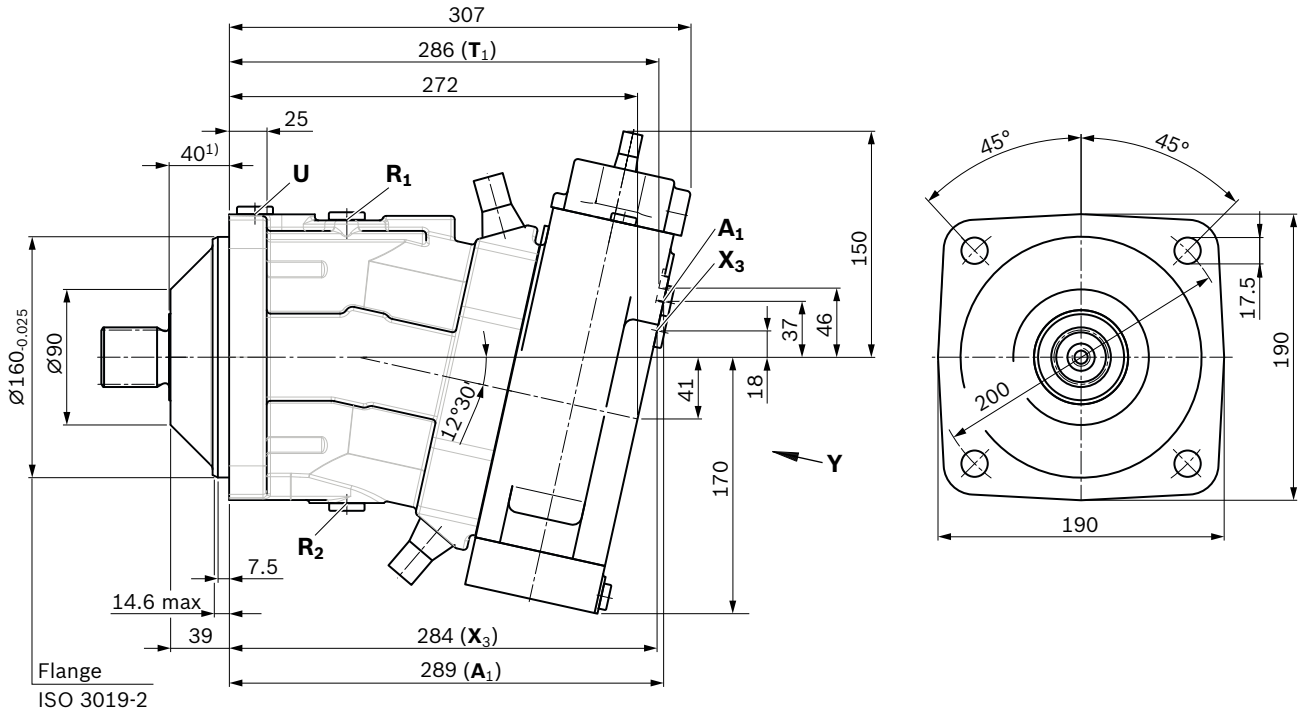
▼ **EP2** – Proportional control electric, positive control



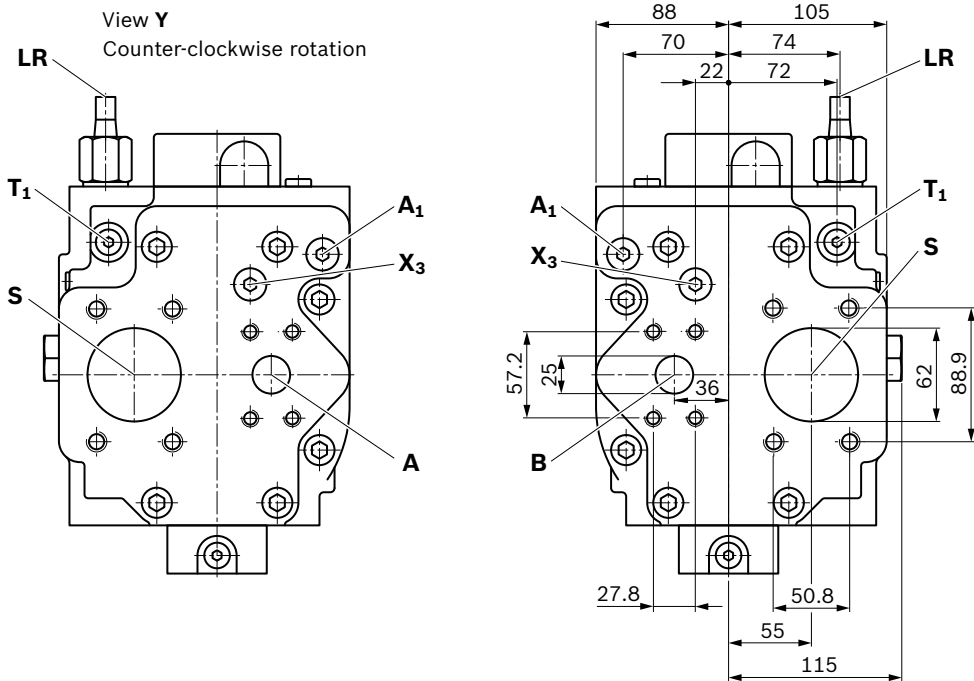
Dimensions, size 107

LR – Power controller without power override

All of the variants of the controllers on pages 34 and 35 are shown for the clockwise direction of input rotation (view Y)



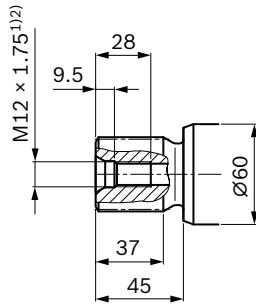
View Y
Clockwise rotation



1) To shaft collar

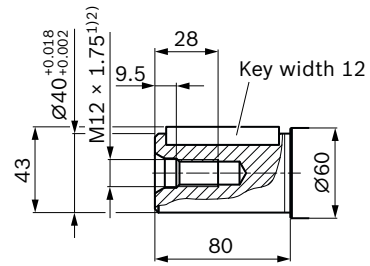
▼ Splined shaft DIN 5480

Z - W40×2×18×9g



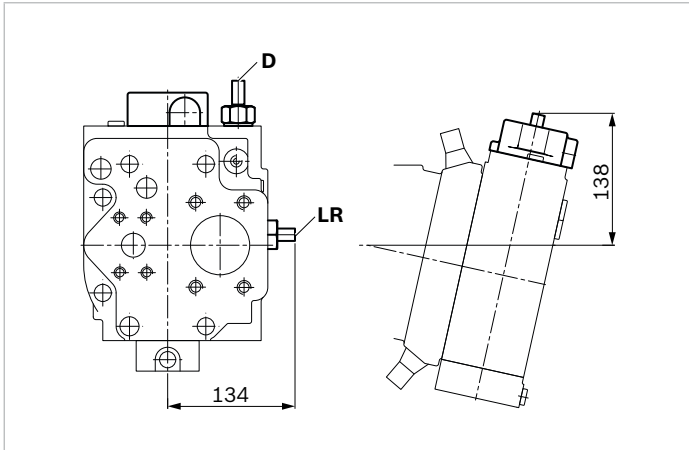
▼ Parallel keyed shaft DIN 6885

P - AS12×8×63

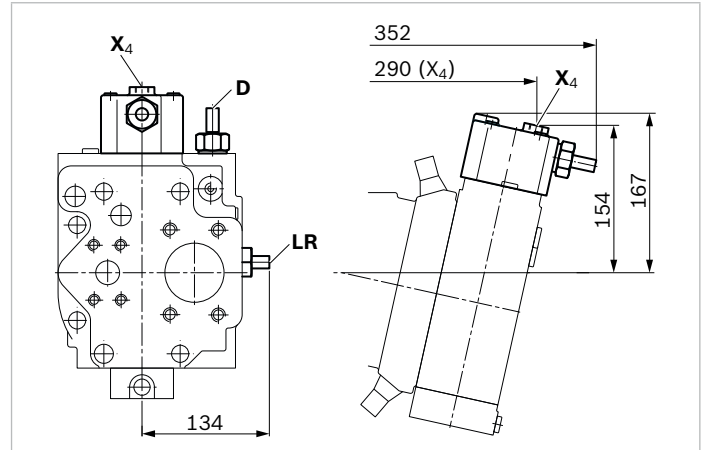


Ports		Standard	Size ²⁾	$p_{\max \text{ abs}}$ [bar] ³⁾	Status
A (B)	Working port (high-pressure series) fastening thread	SAE J518 ⁴⁾ DIN 13	1 in M12 × 1.75; 17 deep	400	O
S	Suction port (standard series) fastening thread	SAE J518 ⁴⁾ DIN 13	2 1/2 in M12 × 1.75; 17 deep	2	O
U	Bearing flushing	DIN 3852 ⁵⁾	M18 × 1.5; 12 deep	2	X
R₁, R₂	Air bleed	DIN 3852 ⁵⁾	M18 × 1.5; 12 deep	2	X
A₁	Measuring high pressure	DIN 3852 ⁵⁾	M16 × 1.5; 12 deep	400	X
T₁	Control fluid drain	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400	X ⁶⁾
X₃	Override	DIN 3852 ⁵⁾	M16 × 1.5; 12 deep	400	X
Y₃	External control pressure	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	40	X
X₁	Pilot pressure	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	40	O
X₄	Load pressure	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	400	O
M₁	Control pressure measurement	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400	X

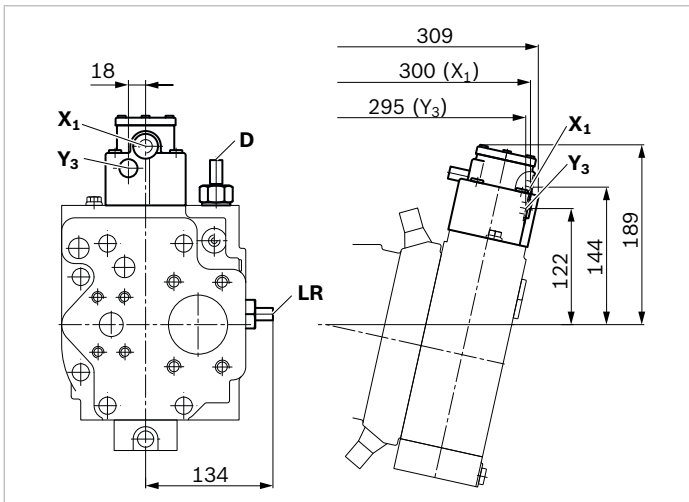
▼ **LRD** – Power controller with pressure cut-off



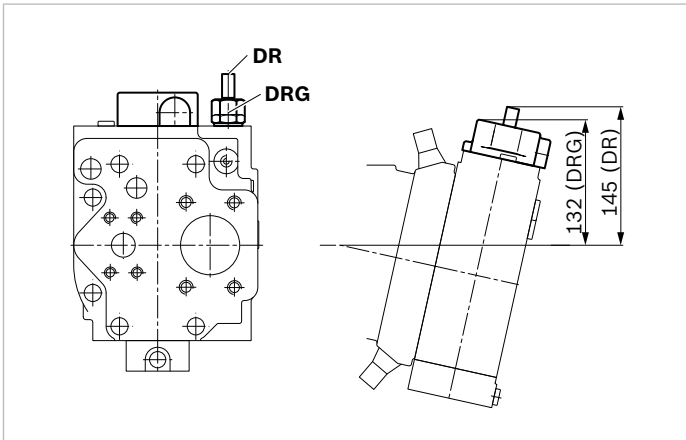
▼ **LRDS** – Power control with pressure cut-off and load sensing



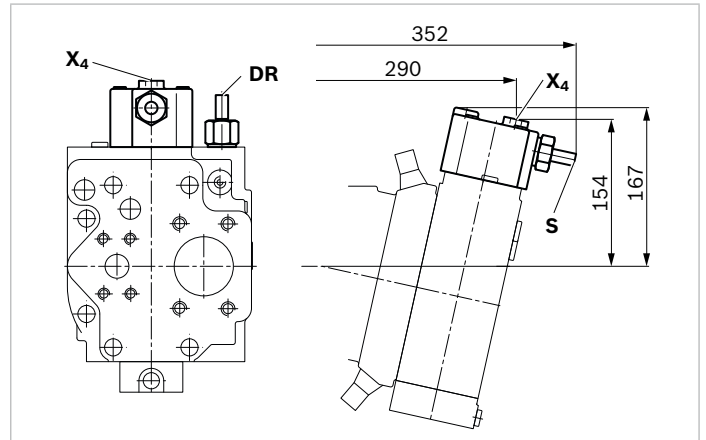
▼ **LRDH1** – Power control with pressure cut-off and stroke limiter



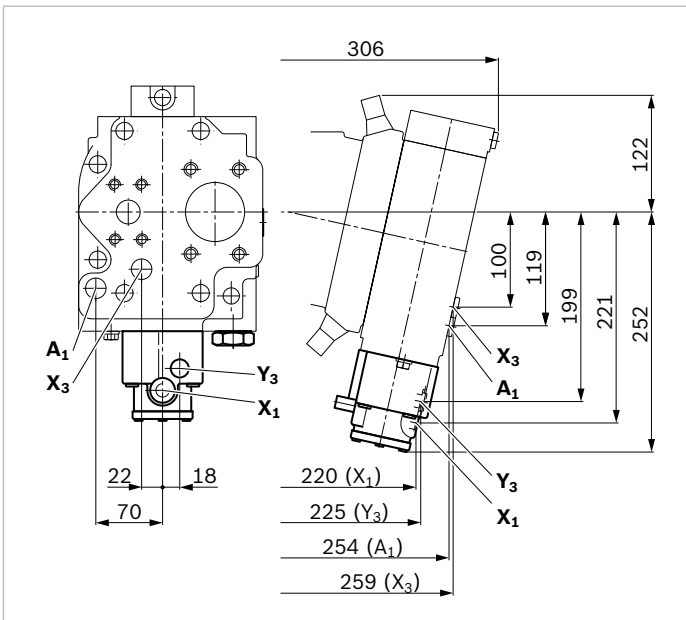
▼ **DR/DRG** – Pressure controller/pressure controller remotely controlled



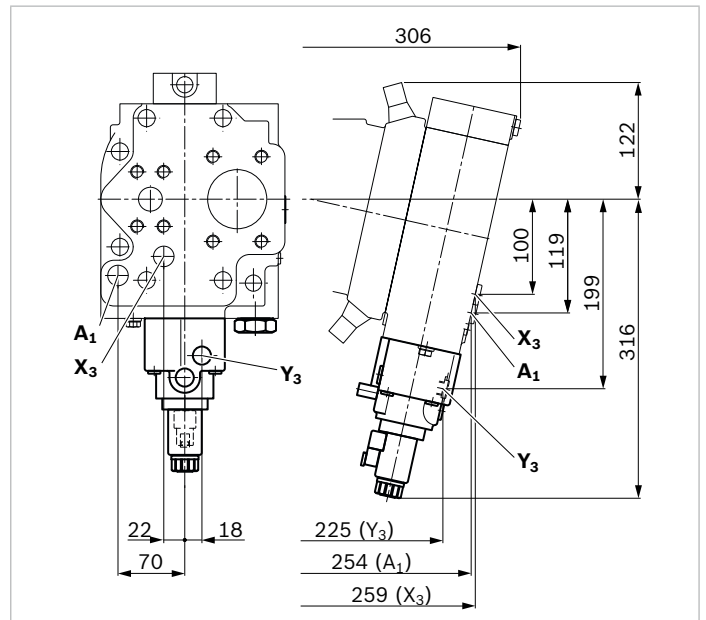
▼ **DRS** – Pressure controller with load sensing



▼ **HD1, HD1G** – Proportional hydraulic control, positive control, and variant with pressure cut-off, remotely controlled



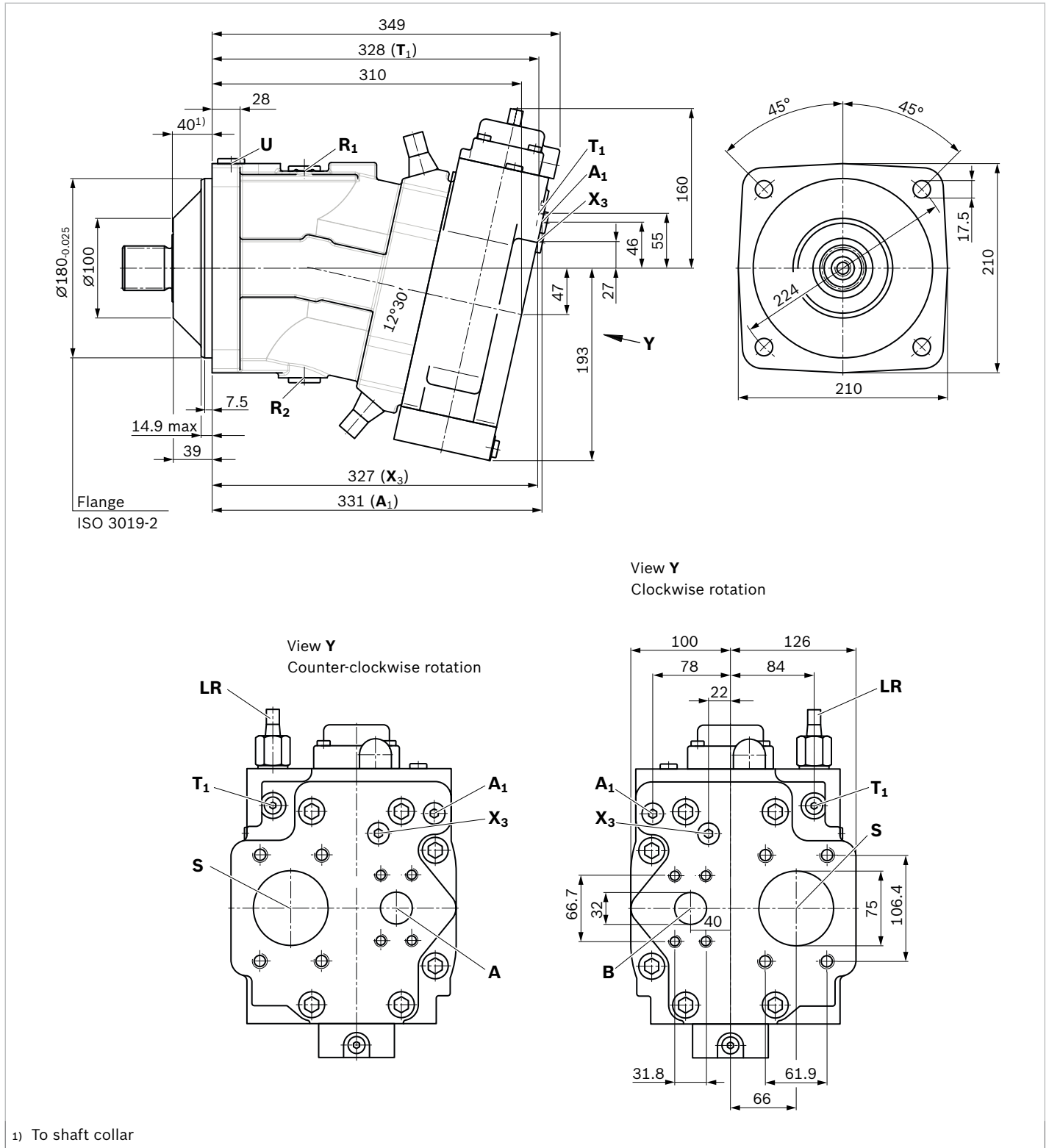
▼ **EP2** – Proportional control electric, positive control



Dimensions, size 160

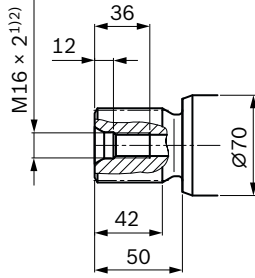
LR – Power controller without power override

All of the variants of the controllers on pages 38 and 39 are shown for the clockwise direction of input rotation (view Y)



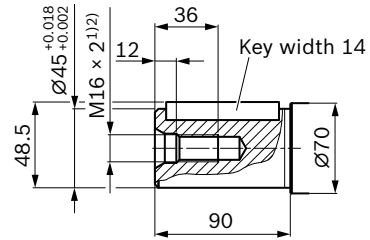
▼ Splined shaft DIN 5480

Z – W45×2×21×9g



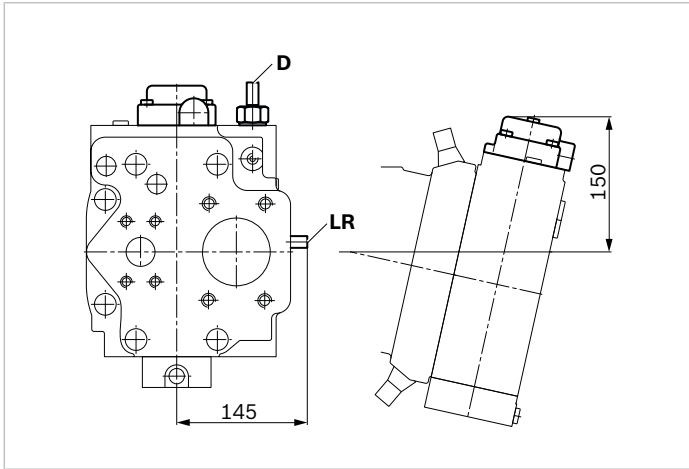
▼ Parallel keyed shaft DIN 6885

P – AS14×9×70

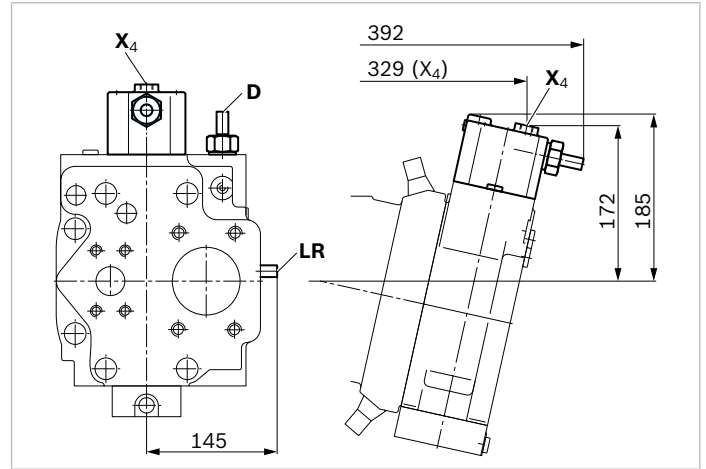


Ports		Standard	Size ²⁾	$p_{\max \text{ abs}}$ [bar] ³⁾	Status
A (B)	Working port (high-pressure series) fastening thread	SAE J518 ⁴⁾ DIN 13	1 1/4 in M14 × 1.5; 19 deep	400	O
S	Suction port (standard series) fastening thread	SAE J518 ⁴⁾ DIN 13	3 in M16 × 1.5; 24 deep	2	O
U	Bearing flushing	DIN 3852 ⁵⁾	M22 × 1.5; 14 deep	2	X
R₁, R₂	Air bleed	DIN 3852 ⁵⁾	M26 × 1.5; 16 deep	2	X
A₁	Measuring high pressure	DIN 3852 ⁵⁾	M16 × 1.5; 12 deep	400	X
T₁	Control fluid drain	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400	X ⁶⁾
X₃	Override	DIN 3852 ⁵⁾	M16 × 1.5; 12 deep	400	X
Y₃	External control pressure	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	40	X
X₁	Pilot pressure	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	40	O
X₄	Load pressure	DIN 3852 ⁵⁾	M14 × 1.5; 12 deep	400	O
M₁	Control pressure measurement	DIN 3852 ⁵⁾	M12 × 1.5; 12 deep	400	X

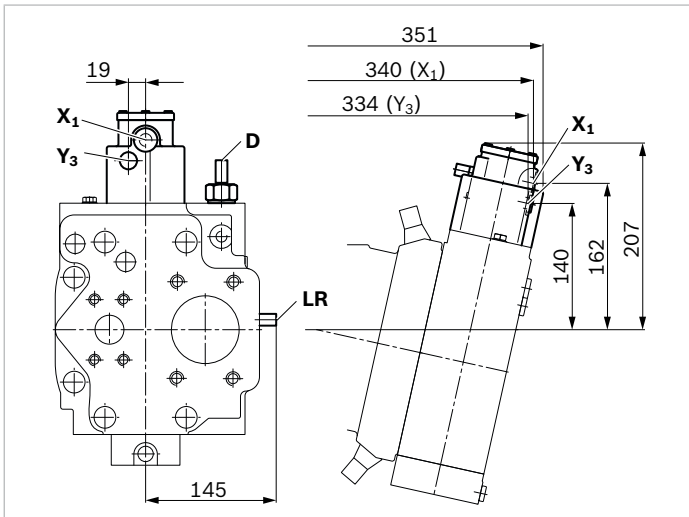
▼ **LRD** – Power controller with pressure cut-off



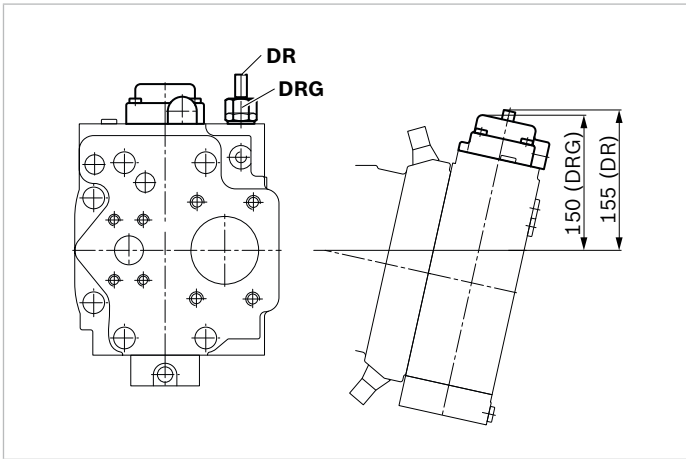
▼ **LRDS** – Power control with pressure cut-off and load sensing



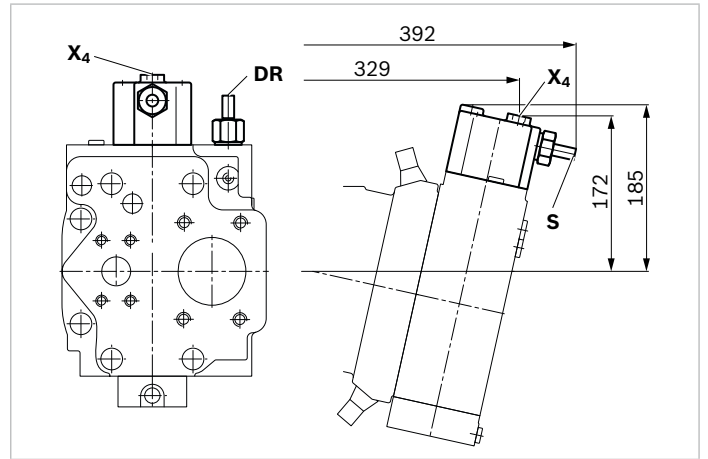
▼ **LRDH1** – Power control with pressure cut-off and stroke limiter



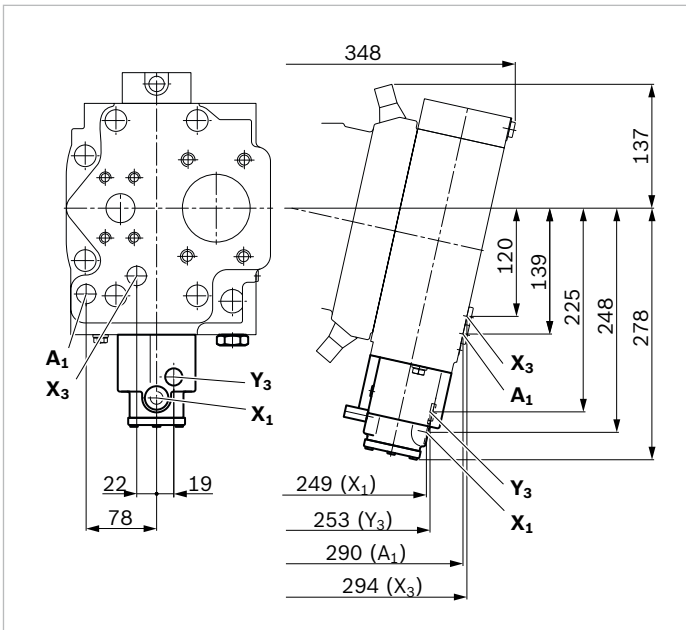
▼ **DR/DRG** – Pressure controller/pressure controller remotely controlled



▼ **DRS** – Pressure controller with load sensing



▼ **HD1, HD1G** – Proportional hydraulic control, positive control, and variant with pressure cut-off, remotely controlled



▼ **EP2** – Proportional control electric, positive control

