

Axial piston variable pump

A10VG Series 10



- ▶ Medium pressure pump for closed-circuit applications
- ▶ Size 18 ... 63
- ▶ Nominal pressure 300 bar
- ▶ Maximum pressure 350 bar
- ▶ Closed circuit

Features

- ▶ Integrated boost pump for boost and pilot oil supply
- ▶ Flow direction changes when the swashplate is moved through the neutral position
- ▶ High-pressure relief valves with integrated boost function
- ▶ Boost-pressure relief valve
- ▶ Optional with pressure cut-off
- ▶ Large variety of controls
- ▶ Swashplate design

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Type code

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
A10V	G								/	10		-	N		C						

Axial piston unit

01	Swashplate design, variable, nominal pressure 300 bar, maximum pressure 350 bar	A10V
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Operating mode

02	Pump, closed circuit	G
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Size (NG)

03	Geometric displacement, see "Technical data" on page 8	18	28	45	63
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Control device

			18	28	45	63	
04	Proportional control hydraulic	pilot-pressure related, with inlet filtration in P and X₁/X₂	•	•	•	•	HD3
		mechanical servo	•	•	•	•	HW
	Automatic control, speed related ¹⁾			•	•	•	DA1
		$U = 12\text{ V}$	-	•	•	•	DA2
		$U = 24\text{ V}$	-	•	•	•	DA2
	Hydraulic control	direct operated	•	•	•	•	DG
	Proportional control, electric	with proportional solenoid with inlet filtration in P and X₁/X₂		•	•	•	EP3
		$U = 12\text{ V}$	•	•	•	•	EP4
		$U = 24\text{ V}$	•	•	•	•	EP4
	Two-point control, electric	with switching solenoid		•	•	•	EZ1
		$U = 12\text{ V}$	•	•	•	•	EZ2
		$U = 24\text{ V}$	•	•	•	•	EZ2
	Electric control, direct operated			•	•	-	ET3
	two pressure reducing valves (FTDRE)			•	•	-	ET4
		$U = 12\text{ V}$	-	•	•	-	ET4
		$U = 24\text{ V}$	-	•	•	-	ET4
	Electric pressure controller, negative control,	de-energized, stroking chamber is controlled via X₁		•	•	•	ED2
	with 4/2 directional valve and one pressure reducing valve ¹⁾	de-energized, stroking chamber is controlled via X₂		•	•	•	ED2
		$U = 24\text{ V}$	-	•	•	•	ED4
		$U = 24\text{ V}$	-	•	•	•	ED4

Pressure cut-off

		18	28	45	63
05	Without pressure cut-off (without code)	•	•	•	•
	With pressure cut-off	-	•	•	•

Neutral position switch

		18	28	45	63
06	Without neutral position switch (without code)	•	•	•	•
	Neutral position switch with DEUTSCH connector (only for HW control)	•	•	•	•

Mechanical stroke limiter²⁾

		18	28	45	63
07	Without mechanical stroke limiter (without code)	•	•	•	•
	Mechanical stroke limiter, externally adjustable	•	•	•	•

Stroking chamber pressure port²⁾

		18	28	45	63
08	Without stroking chamber pressure port X₃ , X₄ (without code)	•	•	•	•
	Stroking chamber pressure port X₃ , X₄	-	•	•	•

• = Available ◦ = On request - = Not available = Preferred program

¹⁾ Only possible in combination with pressure cut-off (DA.D..., ED.D...)

²⁾ Not available in combination with DG control device

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01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
A10V	G								/	10		-	N		C						

DA control valve for NG28 ... 63

		HD	HW	DG	DA	EP	EZ	ET	ED	
09	Without DA control valve	●	●	●	-	●	●	●	●	1
	DA control valve, fixed setting	●	●	●	●	●	-	-	-	2
	DA control valve, mechanically adjustable, direction of actuation, counter-clockwise with position lever	●	●	●	●	●	-	-	-	3L
	DA control valve, mechanically adjustable, direction of actuation, clockwise with position lever	●	●	●	●	●	-	-	-	3R
	DA control valve, fixed setting, ports for pilot control device	●	●	-	●	●	-	-	-	7
	DA control valve, fixed setting, and hydraulic inch valve mounted, control with mineral oil	-	-	-	●	-	-	-	-	8

Series

10	Series 1, index 0	10
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Direction of rotation

		18	28	45	63	
11	Viewed on drive shaft	clockwise	●	●	●	R
		counter-clockwise	●	●	●	L

Sealing material

		18	28	45	63	
12	NBR (nitrile rubber), shaft seal made of FKM (fluoroelastomer)	●	●	●	●	N

Drive shaft

		18	28	45	63	
13	Splined shaft for single pump	●	●	●	●	S
	ANSI B92.1a-1976 for combination pump	-	●	●	●	T

Mounting flange

		18	28	45	63	
14	SAE J744 2-hole	●	●	●	●	C

Working port

15	Port thread: Metric with profile sealing ring sealing according to DIN 3852					
	Fastening thread at the SAE working port and through drive: Metric according to DIN 13	18	28	45	63	
	SAE working port A and B , same side left suction port S bottom	-	●	●	●	10
	SAE working port A and B , same side right suction port S at top (externally piped up, except for DG)	-	●	●	●	13
	Port and working port thread: Metric with profile sealing ring sealing according to DIN 3852					
	Fastening thread at the through drive: Metric according to DIN 13	18	28	45	63	
	Threaded port A and B , same side right suction port S bottom	●	-	-	-	16

Boost pump

		18	28	45	63	
16	Without integrated boost pump	without through drive	●	●	●	N
	without through drive	●	●	●	●	K
	Integrated boost pump	with and without through drive	●	●	●	F

● = Available ○ = On request - = Not available = Preferred program

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A10VG Series 10 Piston Pump



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
A10V	G								/	10		-	N		C						

Through drive³⁾

																	18	28	45	63	
17	Without through drive, only for version N and F (position 16)																•	•	•	•	00
	Flange SAE J744				Hub for splined shaft ⁴⁾																
	82-2 (A)				5/8 in		9T 16/32DP										•	•	•	•	01
					3/4 in		11T 16/32DP										-	•	•	•	52
	101-2 (B)				7/8 in		13T 16/32DP										•	•	•	•	02
					1 in		15T 16/32DP										-	•	•	•	04
	127-2 (C)				1 1/4 in		14T 12/24DP										-	-	-	•	07

High-pressure relief valve

Setting range Δp_{HD}

																	18	28	45	63	
18	High-pressure relief valve				250 ... 320 bar				without bypass								•	•	•	•	3
	direct operated, fixed setting								with bypass								•	•	•	•	5
					100 ... 250 bar				without bypass								-	•	•	•	4
									with bypass								-	•	•	•	6

Filtration boost circuit/external boost pressure supply

																	18	28	45	63	
19	Filtration in the boost pump suction line																•	•	•	•	S
	Filtration in the boost pump pressure line																-	• ⁵⁾	• ⁵⁾	•	D
	Ports for external boost circuit filtration (F_e and G (F_a))																				
	External boost pressure supply (on version without integrated boost pump - N, K)																•	•	•	•	E

Connector for solenoids⁶⁾

																	18	28	45	63	
20	Without connector (without code), only with purely hydraulic controls																•	•	•	•	
	DEUTSCH molded connector				without suppressor diode												•	•	•	•	P
	2-pin, DT04-2P				with suppressor diode (only for EZ, DA and ED switching solenoid)												•	•	•	•	Q

Flushing valve

																	18	28	45	63	
21	Without flushing valve (without code)																•	•	•	•	
	Flushing valve				SAE connection diagram, metric mounting												•	•	•	•	1
					metric threaded ports												•	•	•	•	3

Standard/special version

22	Standard version				without code																
	Special version																				-S

• = Available ◦ = On request - = Not available

 = Preferred program

Notice

- ▶ Note the project planning notes on page 59!
- ▶ In addition to the type code, please specify the relevant technical data when placing your order.
- ▶ Please note that not all type code combinations are available although the individual functions are marked as being available.

³⁾ Specifications for version with integrated boost pump, please contact us for version without boost pump

⁴⁾ Hub for splined shaft according to ANSI B92.1a-1976 (drive shaft allocation according to SAE J744)

⁵⁾ Pressure filtration is not possible in connection with DA control valve

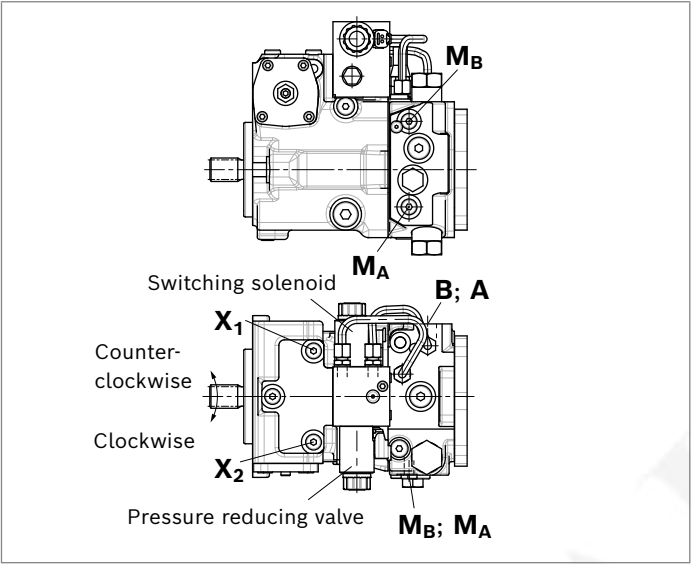
⁶⁾ Connectors for other electric components may deviate

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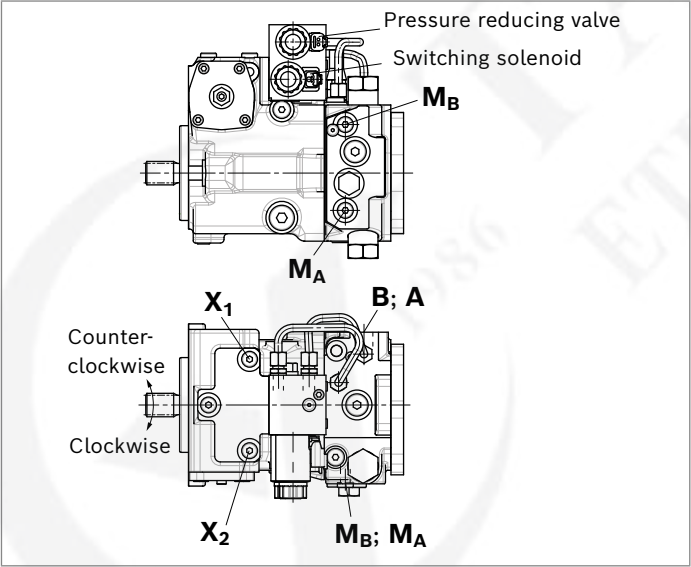
A10VG Series 10 Piston Pump

Correlation of direction of rotation, control and flow direction ¹⁾				
Version	ED2	ED2	ED4	ED4
Direction of rotation	Clockwise	Counter-clockwise	Clockwise	Counter-clockwise
Stroking chamber	X ₁	X ₁	X ₂	X ₂
Flow direction	A to B	B to A	B to A	A to B
Working pressure	M _B	M _A	M _A	M _B

▼ Version ED2



▼ Version ED4



1) Parameters apply to switching solenoid and pressure reducing valve in de-energized condition

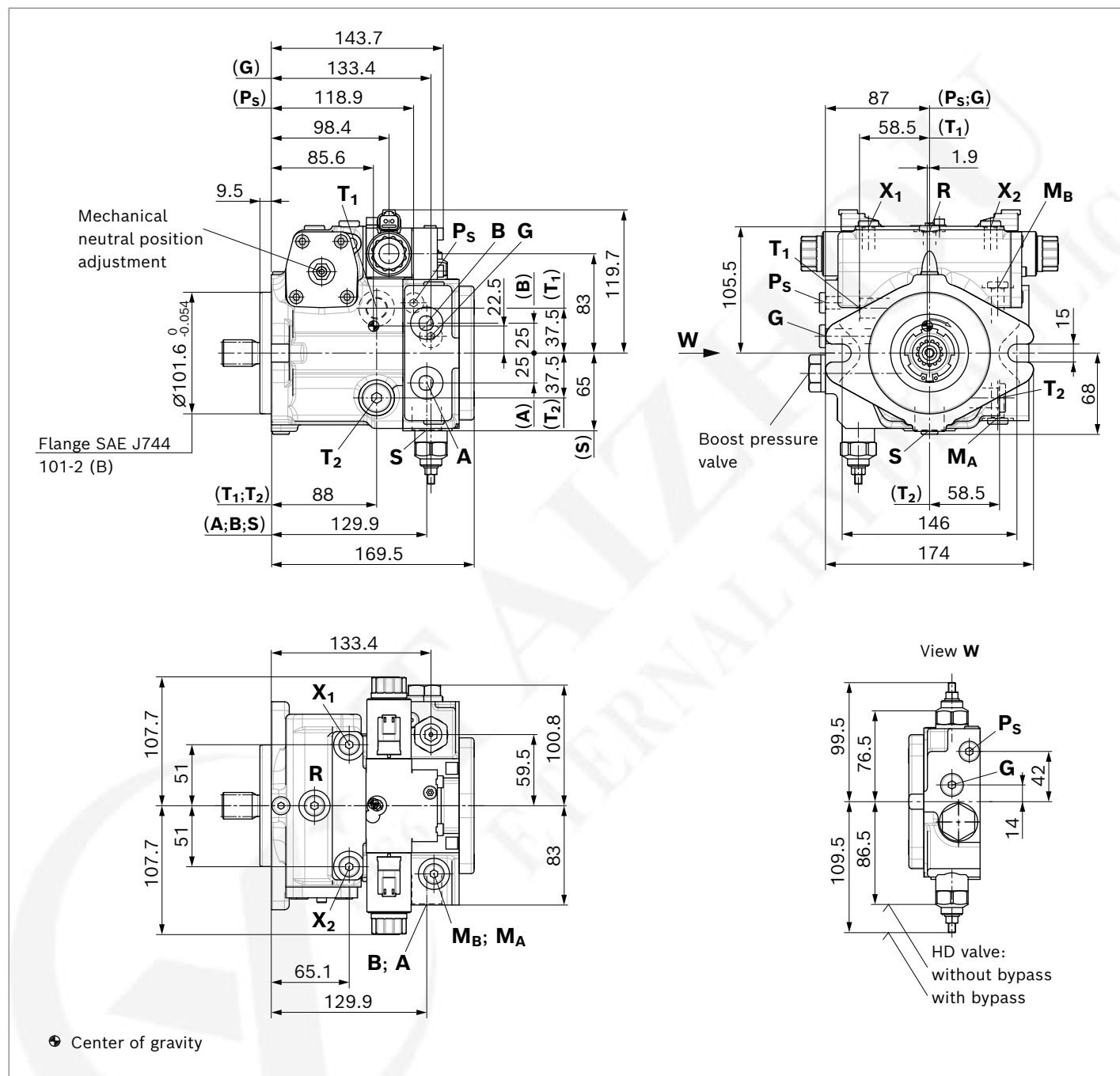
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A10VG Series 10 Piston Pump

Dimensions, size 18

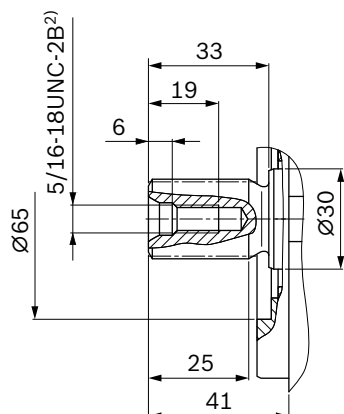
EP – Proportional control, electric

Standard: Threaded port **A** and **B**, same side right, suction port **S** bottom (16)



▼ Splined shaft ANSI B92.1a

S – 7/8 in 13T 16/32DP¹⁾



Ports		Standard	Size	$p_{\max}$ [bar] ³⁾	State ⁷⁾
A, B	Working port	DIN 3852 ⁶⁾	M27 × 2; 16 deep	350	O
S	Suction port	DIN 3852 ⁶⁾	M26 × 1.5; 16 deep	5	O ⁴⁾
T₁	Drain port	DIN 3852 ⁶⁾	M18 × 1.5; 12 deep	3	O ⁵⁾
T₂	Drain port	DIN 3852 ⁶⁾	M18 × 1.5; 12 deep	3	X ⁵⁾
R	Air bleed port	DIN 3852 ⁶⁾	M12 × 1.5; 12 deep	3	X
X₁, X₂	Control pressure port (upstream of orifice)	DIN 3852 ⁶⁾	M12 × 1.5; 12 deep	25	X
G	Boost pressure port inlet	DIN 3852 ⁶⁾	M14 × 1.5; 12 deep	25	X
P_s	Pilot pressure port	DIN 3852 ⁶⁾	M12 × 1.5; 12 deep	25	X
M_A, M_B	Measuring port pressure A, B	DIN 3852 ⁶⁾	M12 × 1.5; 12 deep	350	X
Y₁, Y₂	Pilot pressure port (pilot signal HD only)	DIN 3852 ⁶⁾	M14 × 1.5; 12 deep	40	O

1) Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit, tolerance class 5

2) Thread according to ASME B1.1

3) Depending on the application, momentary pressure peaks can occur. Keep this in mind when selecting measuring devices and fittings.

4) Plugged for external boost pressure supply.

5) Depending on installation position, **T₁** or **T₂** must be connected (see also installation instructions on page 56).

6) The countersink can be deeper than specified in the standard. Ports designed for straight stud ends according to EN ISO 9974-2 type E

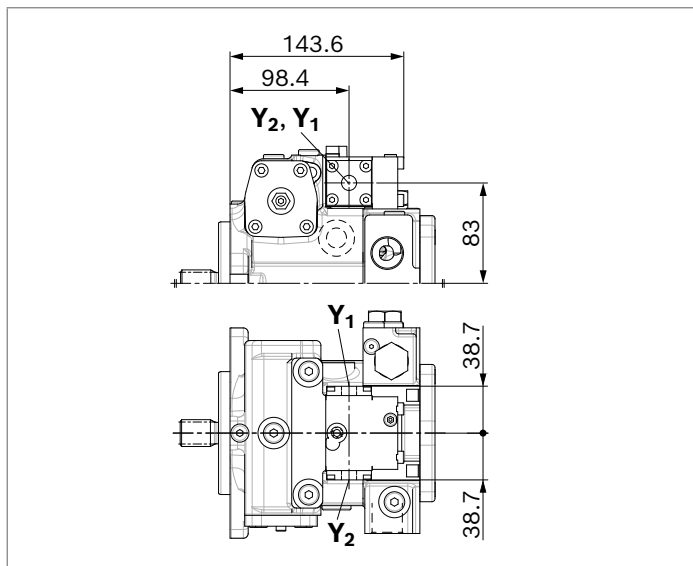
7) O = Must be connected (comes plugged)

X = Plugged (observe installation instructions)

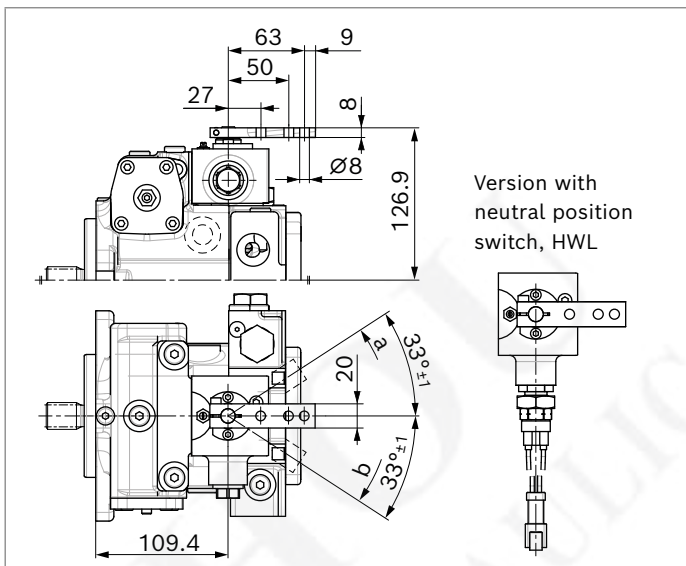
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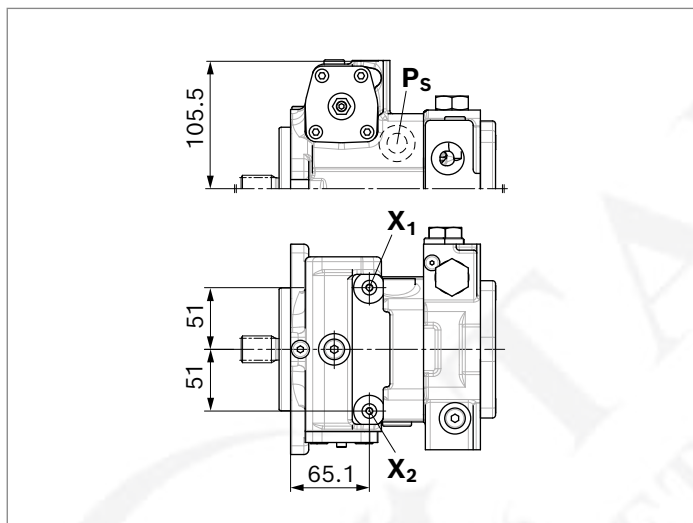
▼ **HD** – Proportional control, hydraulic, pilot-pressure related



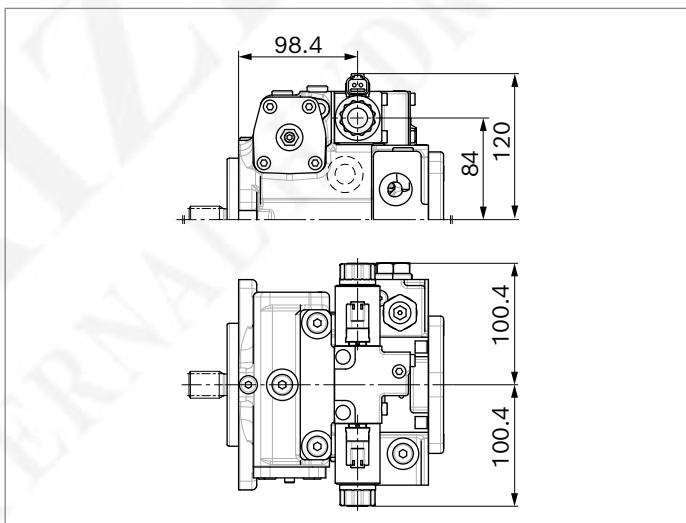
▼ **HW** – Proportional control, hydraulic, mechanical servo



▼ **DG** – Hydraulic control, direct operated



▼ **EZ** – Two-point control, electric



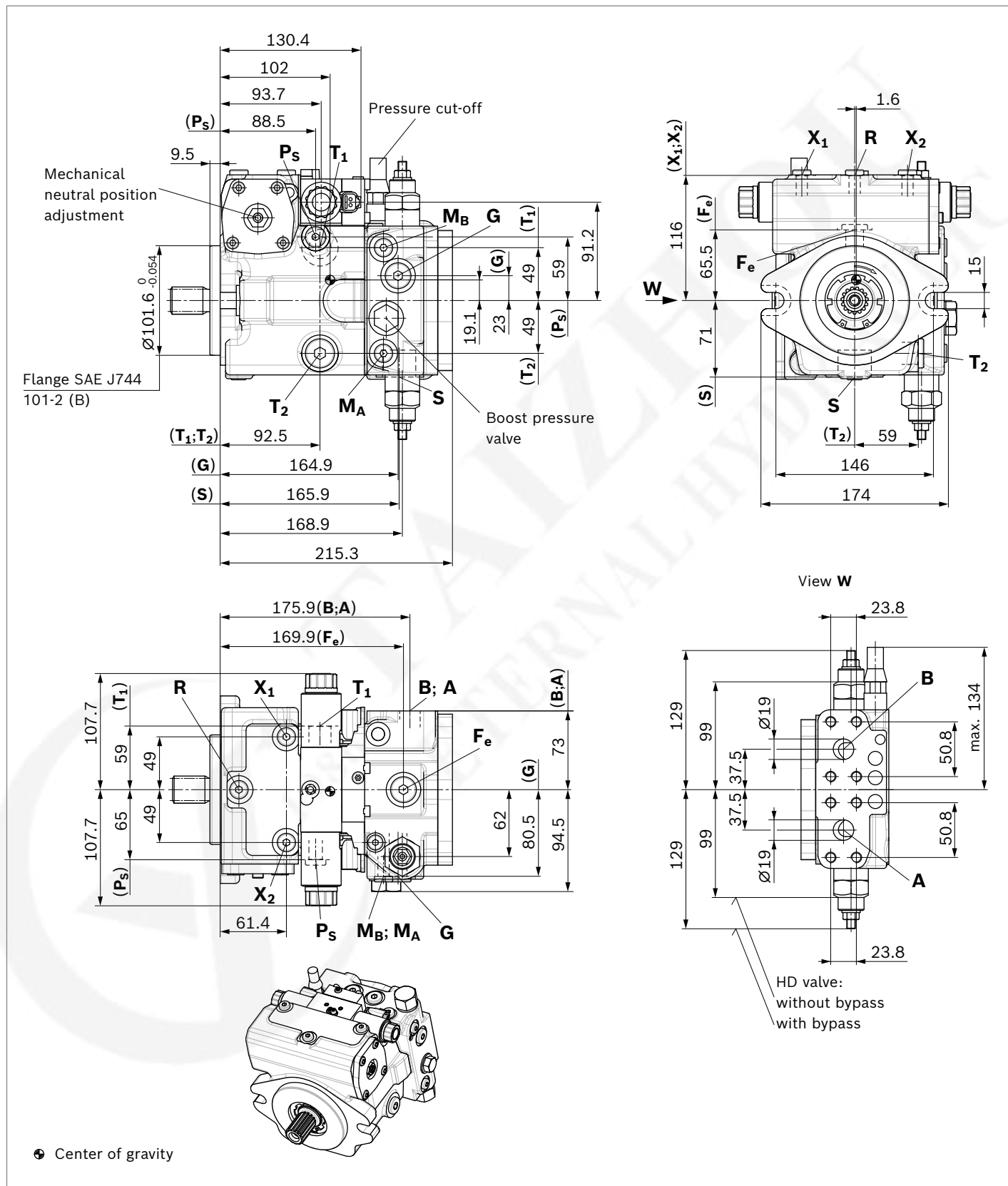
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Dimensions, size 28

EP – Proportional control, electric

Standard: SAE working port **A** and **B**, same side left, suction port **S** bottom (10)

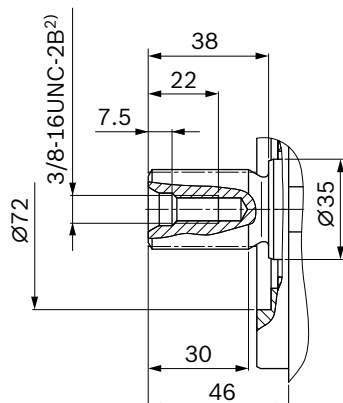


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A10VG Series 10 Piston Pump

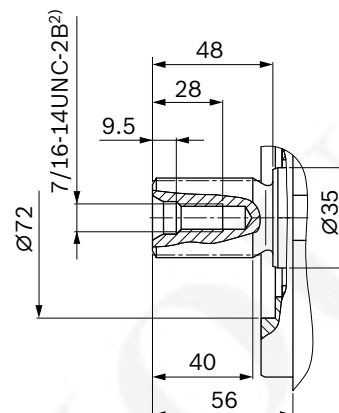
▼ Splined shaft ANSI B92.1a

S – 1 in 15T 16/32DP¹⁾



▼ Splined shaft ANSI B92.1a

T – 1 1/4 in 14T 12/24DP¹⁾



Ports	Standard	Size	p_{max} [bar] ³⁾	State ⁹⁾
A, B Working port Fastening thread	SAEJ518 ⁴⁾ DIN 13	3/4 in M10 × 1.5; 17 deep	350	O
S Suction port	DIN 3852 ⁷⁾	M33 × 2; 18 deep	5	O ⁵⁾
T₁ Drain port	DIN 3852 ⁷⁾	M22 × 1.5; 15 deep	3	O ⁶⁾
T₂ Drain port	DIN 3852 ⁷⁾	M22 × 1.5; 15 deep	3	X ⁶⁾
R Air bleed port	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	3	X
X₁, X₂ Control pressure port (upstream of orifice)	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	40	X
X₃, X₄ ⁸⁾ Stroking chamber pressure port	DIN 3852 ⁷⁾	M10 × 1; 8 deep	40	X
G (F_a) Boost pressure port inlet	DIN 3852 ⁷⁾	M18 × 1.5; 12 deep	40	X
G Boost pressure port inlet (only DA control valve)	DIN 3852 ⁷⁾	M10 × 1; 8 deep	40	X
P_s Pilot pressure port	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	X
Y Pilot pressure port outlet (only DA..7)	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	O
M_A, M_B Measuring port pressure A, B	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	350	X
F_e Boost pressure port outlet	DIN 3852 ⁷⁾	M18 × 1.5; 12 deep	40	X
Y₁, Y₂ Pilot pressure port (pilot signal HD only)	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	O
Z Pilot pressure port (inch signal only DA..8)	DIN 3852 ⁷⁾	M10 × 1; 8 deep	80	X

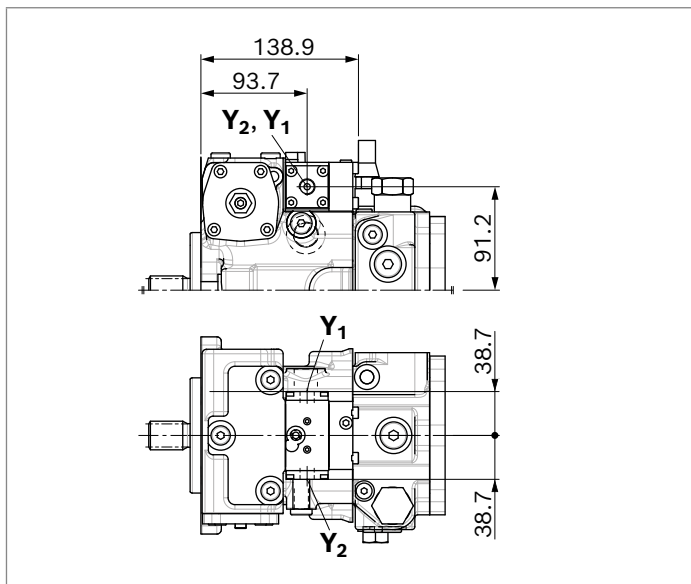
- 1) Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit, tolerance class 5
- 2) Thread according to ASME B1.1
- 3) Depending on the application, momentary pressure peaks can occur. Keep this in mind when selecting measuring devices and fittings.
- 4) Only dimensions according to SAE J518, metric fastening thread is a deviation from the standard.
- 5) Plugged for external boost pressure supply.

- 6) Depending on installation position, **T₁** or **T₂** must be connected (see also installation instructions on page 56).
- 7) The countersink can be deeper than specified in the standard. Ports designed for straight stud ends according to EN ISO 9974-2 type E
- 8) Optional, see page 49
- 9) O = Must be connected (comes plugged)
X = Plugged (in normal operation)

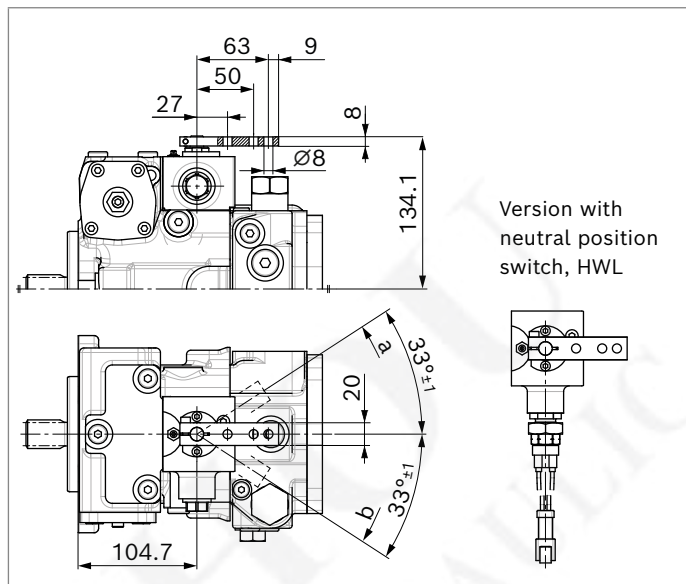
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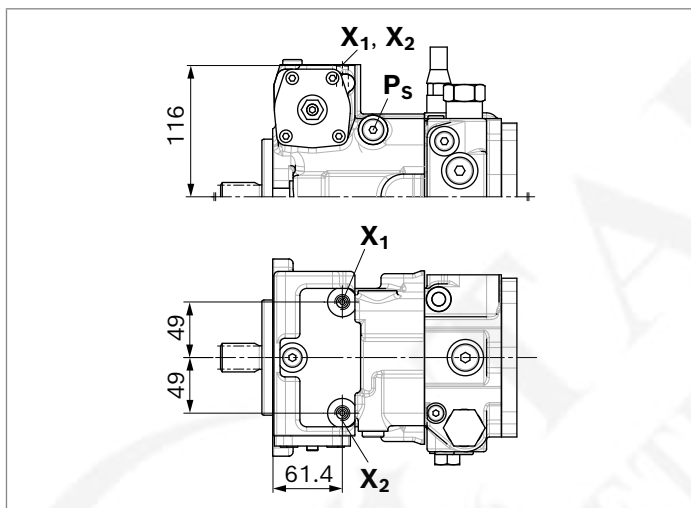
▼ **HD** – Proportional control, hydraulic, pilot-pressure related



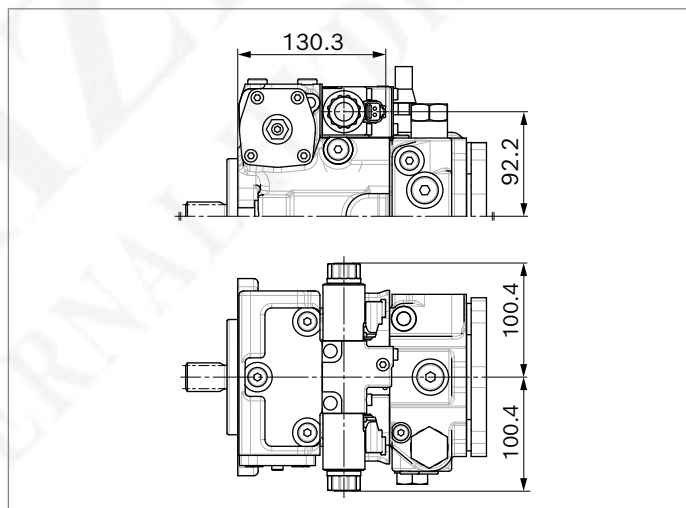
▼ **HW** – Proportional control, hydraulic, mechanical servo



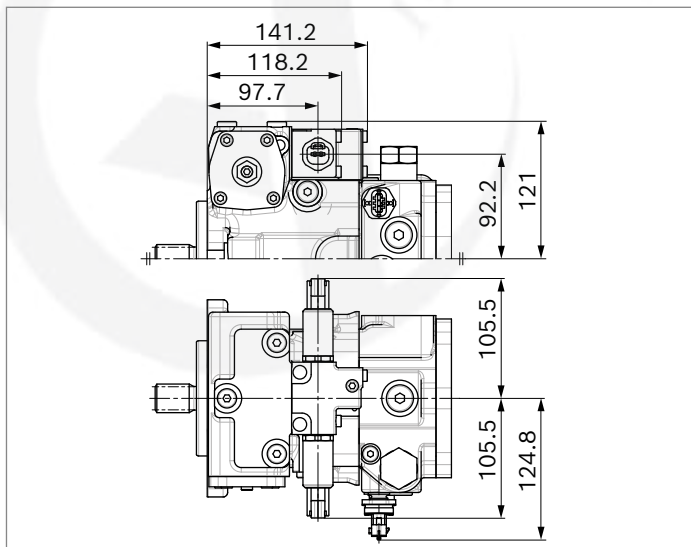
▼ **DG** – Hydraulic control, direct operated



▼ **EZ** – Two-point control, electric



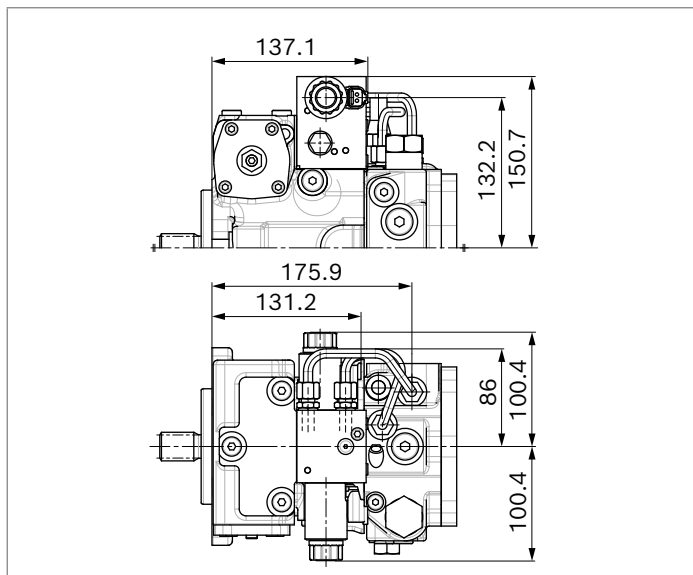
▼ **ET** – Electric control, direct operated



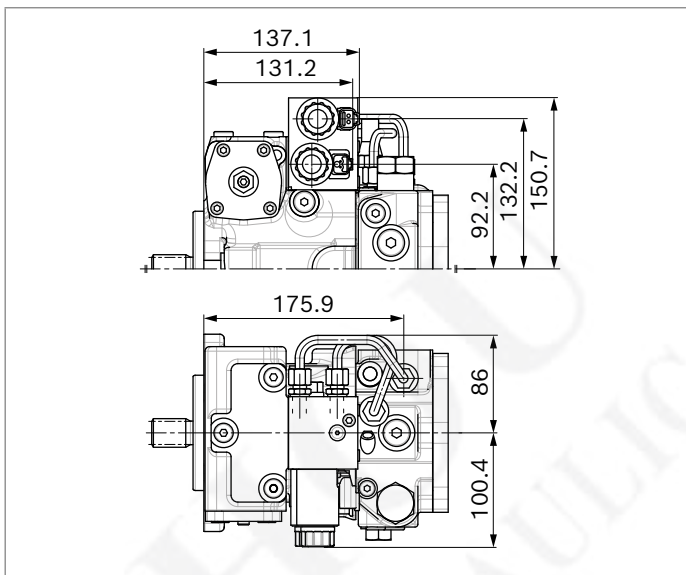
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▼ **ED2** – Electric pressure controller



▼ **ED4** – Electric pressure controller

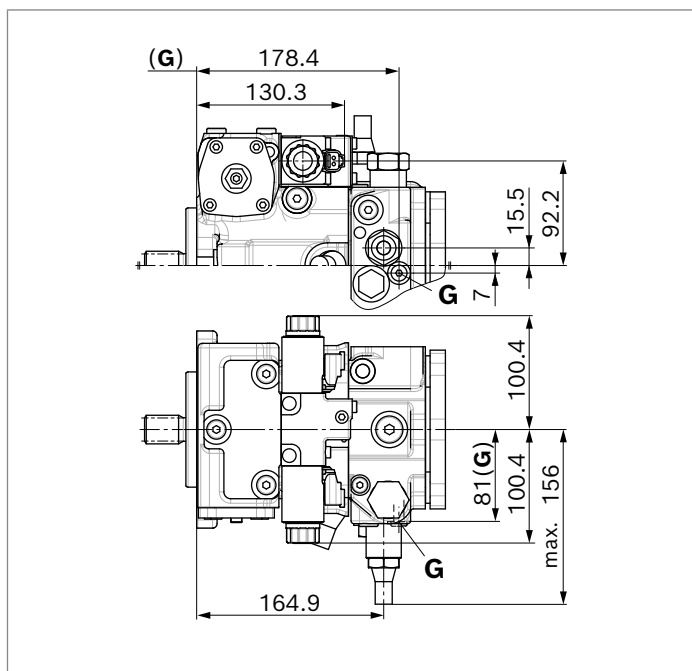


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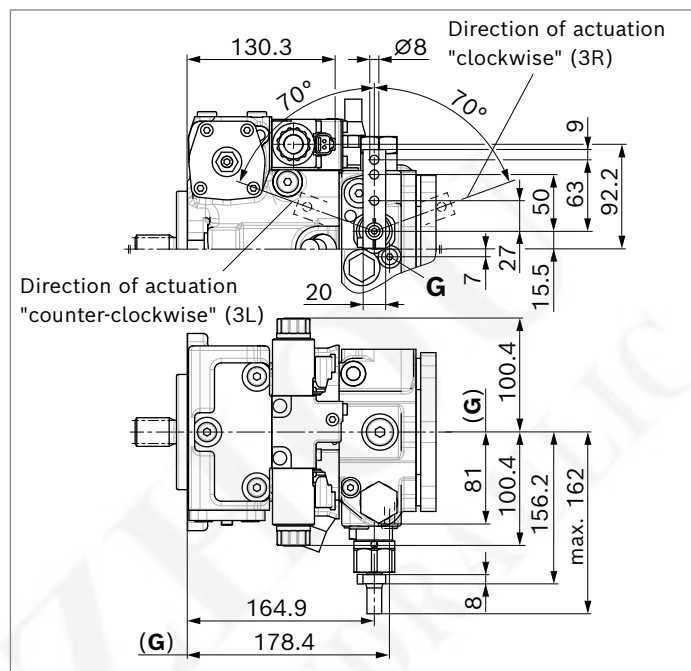
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DA control valve

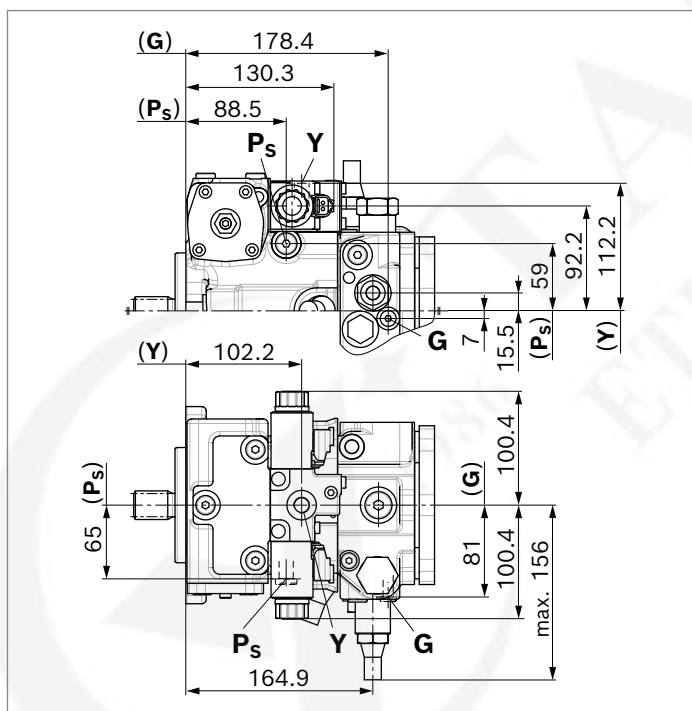
▼ DA..2 – fixed setting



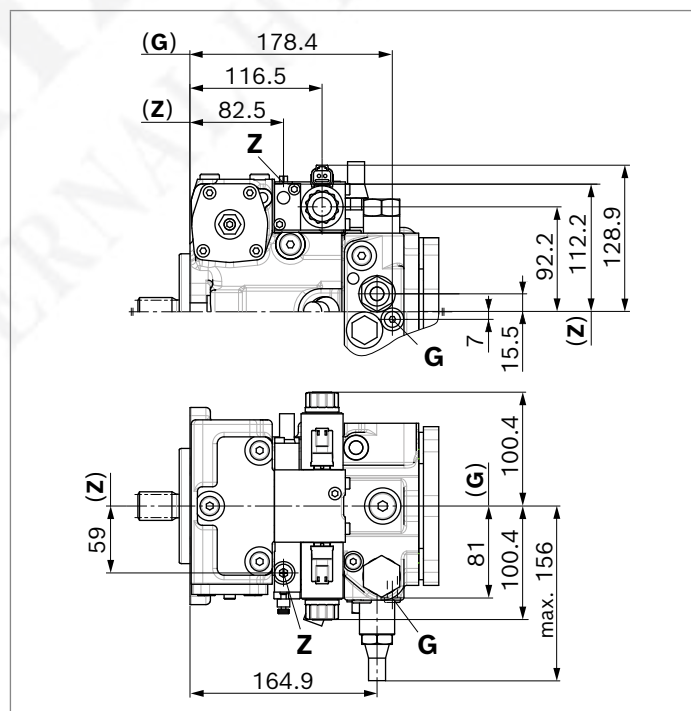
▼ DA..3 – mechanically adjustable with position lever



▼ DA..7 – fixed setting and ports for pilot control device



▼ DA..8 – fixed setting and inch valve mounted



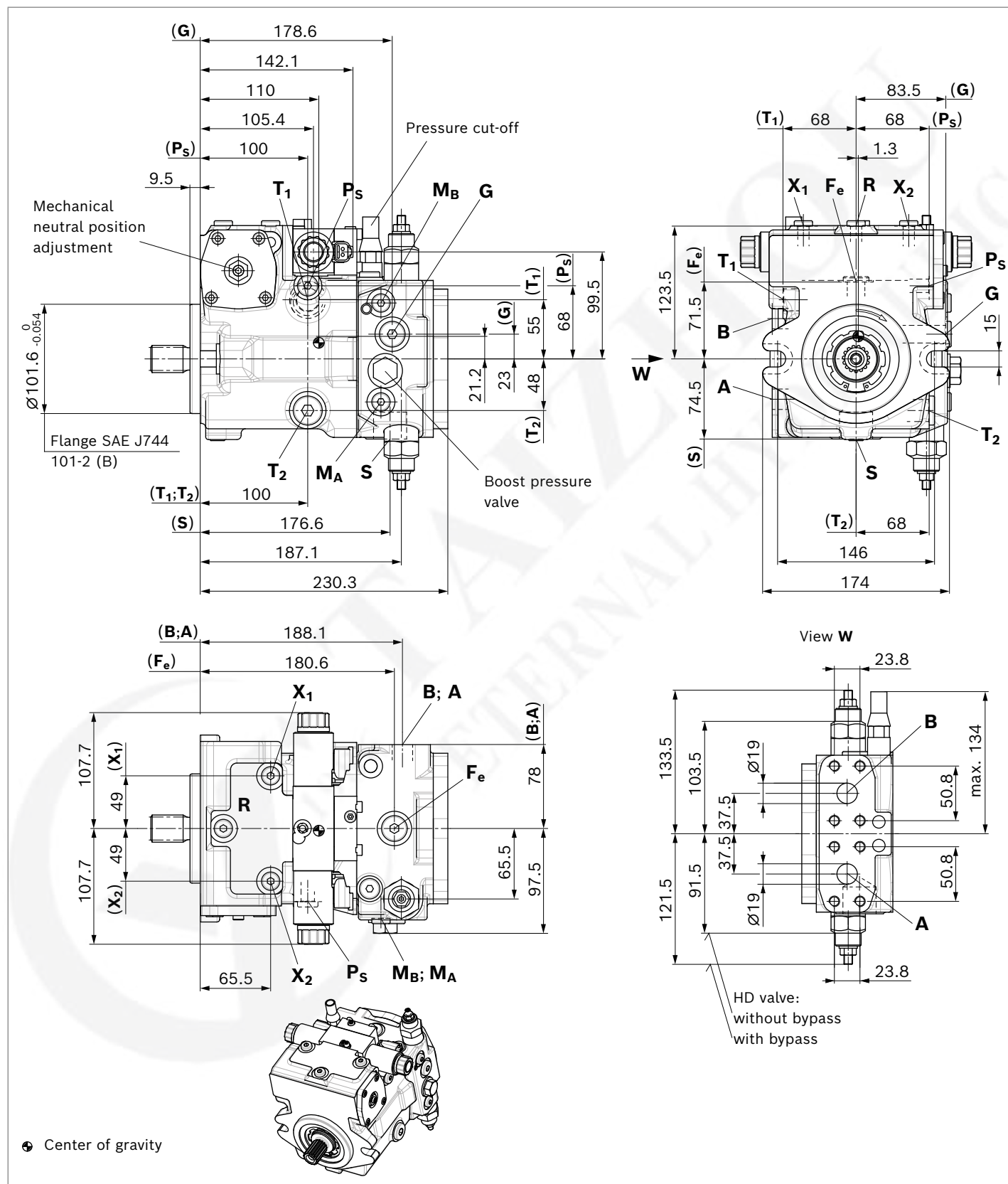
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A10VG Series 10 Piston Pump

Dimensions, size 45

EP – Proportional control, electric

Standard: SAE working port **A** and **B**, same side left, suction port **S** bottom (10)

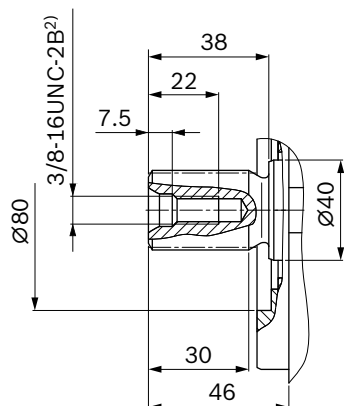


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A10VG Series 10 Piston Pump

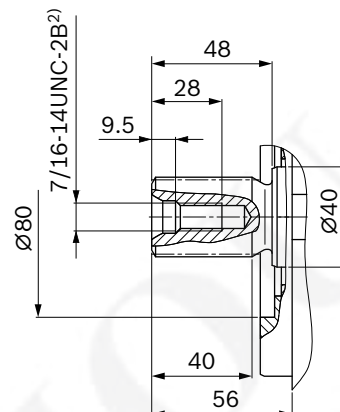
▼ Splined shaft ANSI B92.1a

S – 1 in 15T 16/32DP¹⁾



▼ Splined shaft ANSI B92.1a

T – 1 1/4 in 14T 12/24DP¹⁾



Ports		Standard	Size	$p_{\max}$ [bar] ³⁾	State ⁹⁾
A, B	Working port	SAEJ518 ⁴⁾	3/4 in	350	O
	Fastening thread	DIN 13	M10 × 1.5; 17 deep		
S	Suction port	DIN 3852 ⁷⁾	M33 × 2; 18 deep	5	O ⁵⁾
T₁	Drain port	DIN 3852 ⁷⁾	M22 × 1.5; 15 deep	3	O ⁶⁾
T₂	Drain port	DIN 3852 ⁷⁾	M22 × 1.5; 15 deep	3	X ⁶⁾
R	Air bleed port	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	3	X
X₁, X₂	Control pressure port (upstream of orifice)	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	40	X
X₃, X₄⁸⁾	Stroking chamber pressure port	DIN 3852 ⁷⁾	M10 × 1; 8 deep	40	X
G (F_a)	Boost pressure port inlet	DIN 3852 ⁷⁾	M18 × 1.5; 12 deep	40	X
G	Boost pressure port inlet (only DA control valve)	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	X
P_s	Pilot pressure port	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	X
Y	Pilot pressure port outlet (only DA..7)	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	O
M_A, M_B	Measuring port pressure A, B	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	350	X
F_e	Boost pressure port outlet	DIN 3852 ⁷⁾	M18 × 1.5; 12 deep	40	X
Y₁, Y₂	Pilot pressure port outlet (only HD)	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	O
Z	Pilot pressure port (inch signal only DA..8)	DIN 3852 ⁷⁾	M10 × 1; 8 deep	80	X

1) Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit, tolerance class 5

2) Thread according to ASME B1.1

3) Depending on the application, momentary pressure peaks can occur. Keep this in mind when selecting measuring devices and fittings.

4) Only dimensions according to SAE J518, metric fastening thread is a deviation from the standard.

5) Plugged for external boost pressure supply.

6) Depending on installation position, **T₁** or **T₂** must be connected (see also installation instructions on page 56).

7) The countersink can be deeper than specified in the standard. Ports designed for straight stud ends according to EN ISO 9974-2 type E

8) Optional, see page 49

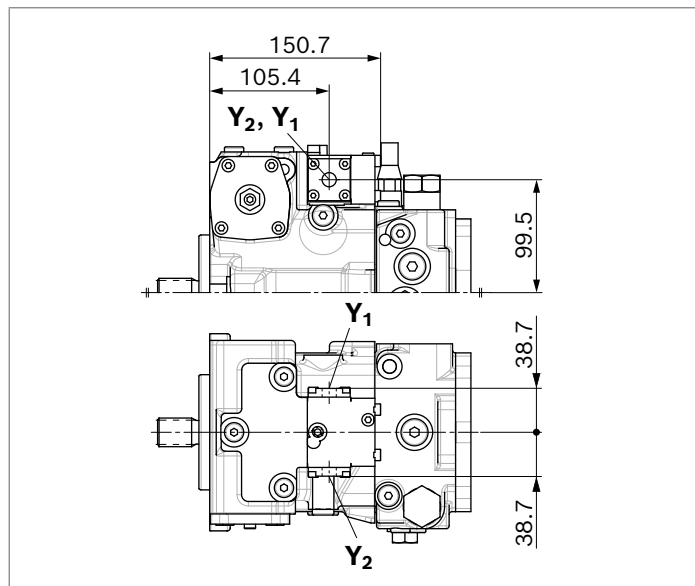
9) O = Must be connected (comes plugged)

X = Plugged (in normal operation)

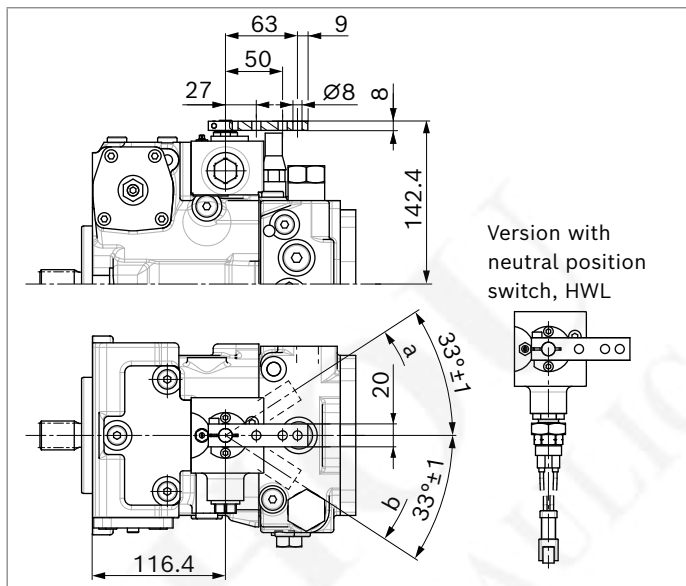
A10VG 10系列柱塞泵

A10VG Series 10 Piston Pump

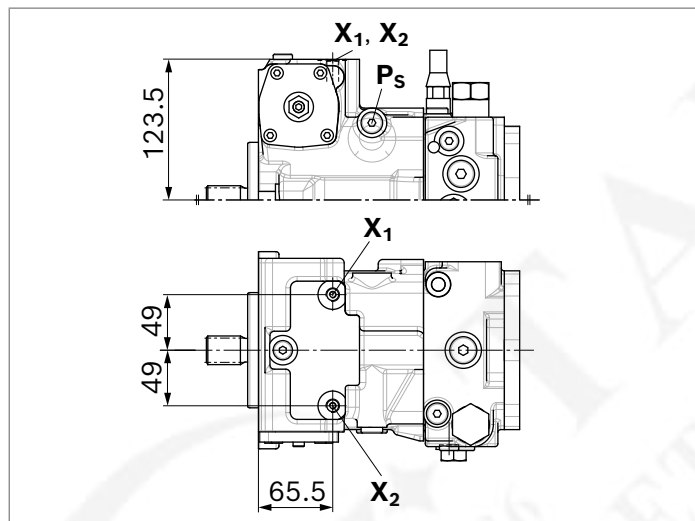
▼ **HD** – Proportional control, hydraulic, pilot-pressure related



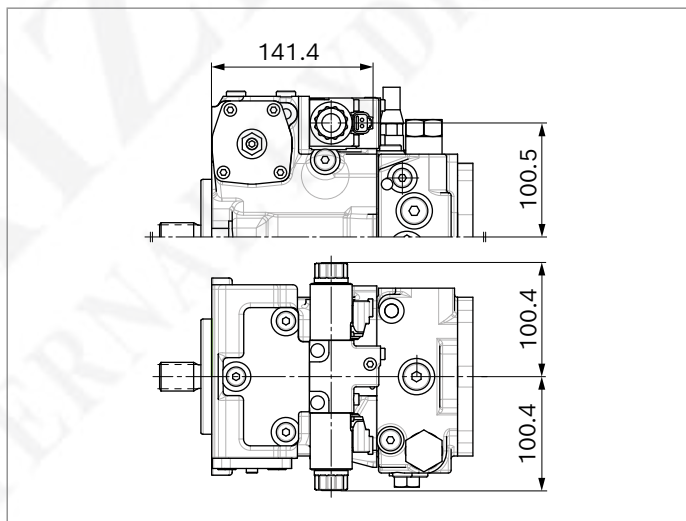
▼ **HW** – Proportional control, hydraulic, mechanical servo



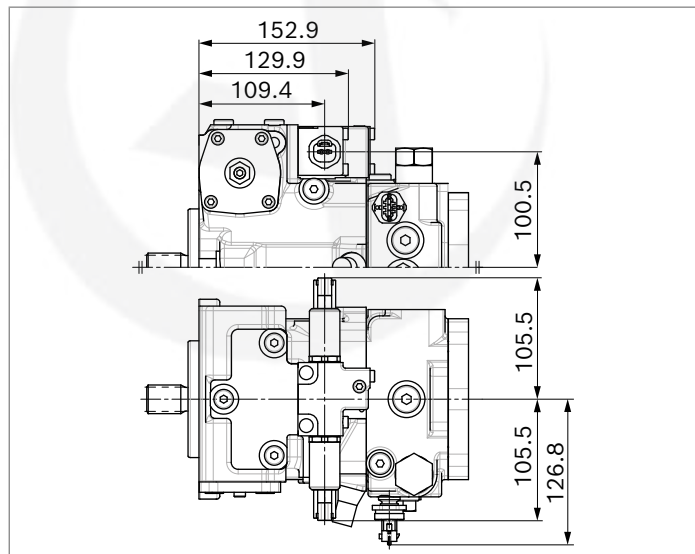
▼ **DG** – Hydraulic control, direct operated



▼ **EZ** – Two-point control, electric



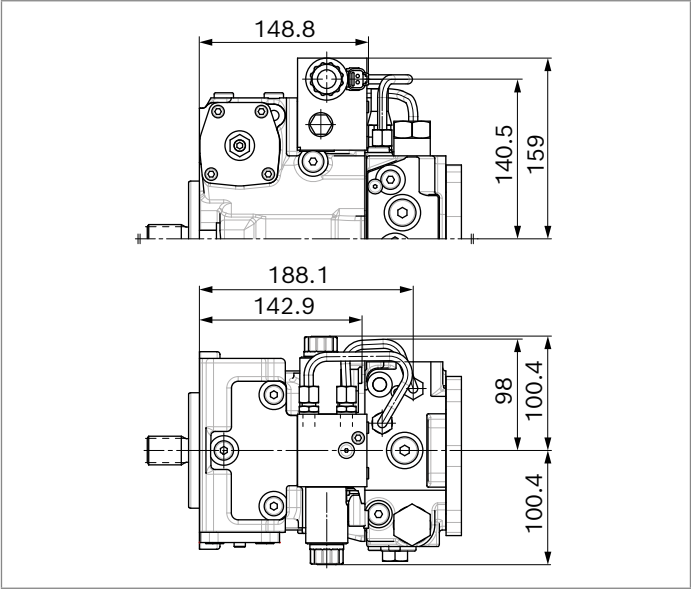
▼ **ET** – Electric control, direct operated



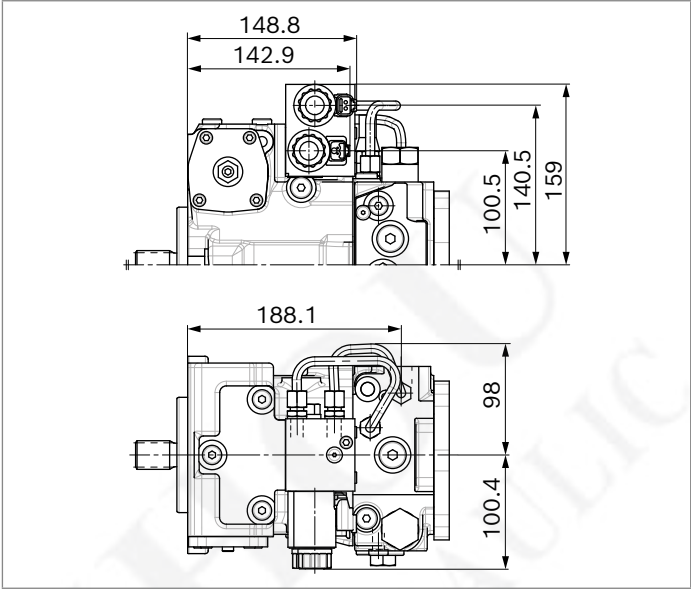
A10VG 10系列柱塞泵
A10VG Series 10 Piston Pump



▼ **ED2** – Electric pressure controller



▼ **ED4** – Electric pressure controller

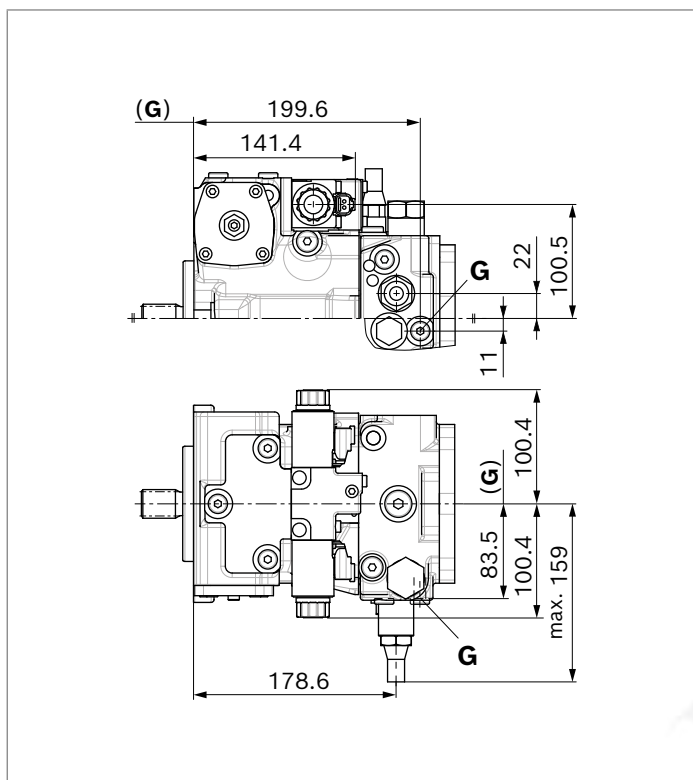


A10VG 10系列柱塞泵

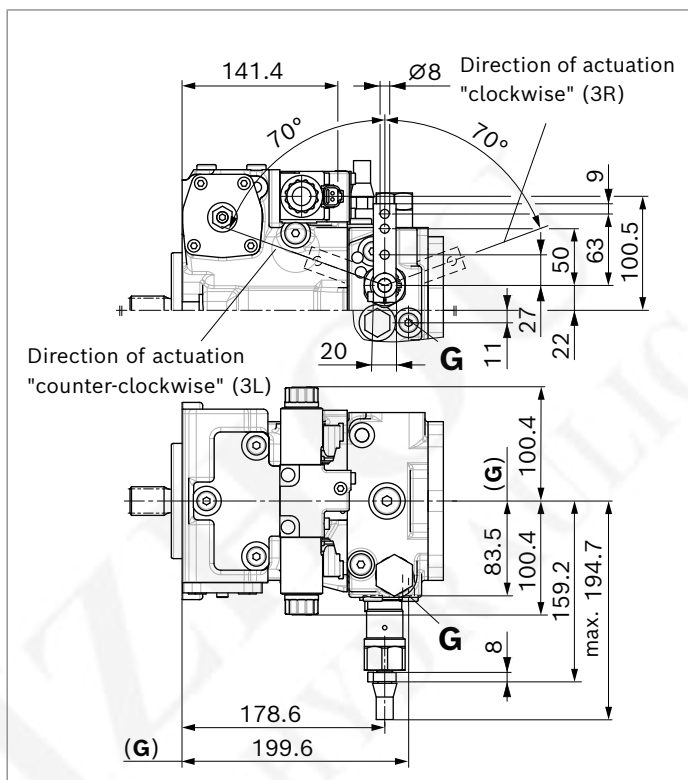
A10VG Series 10 Piston Pump

DA control valve

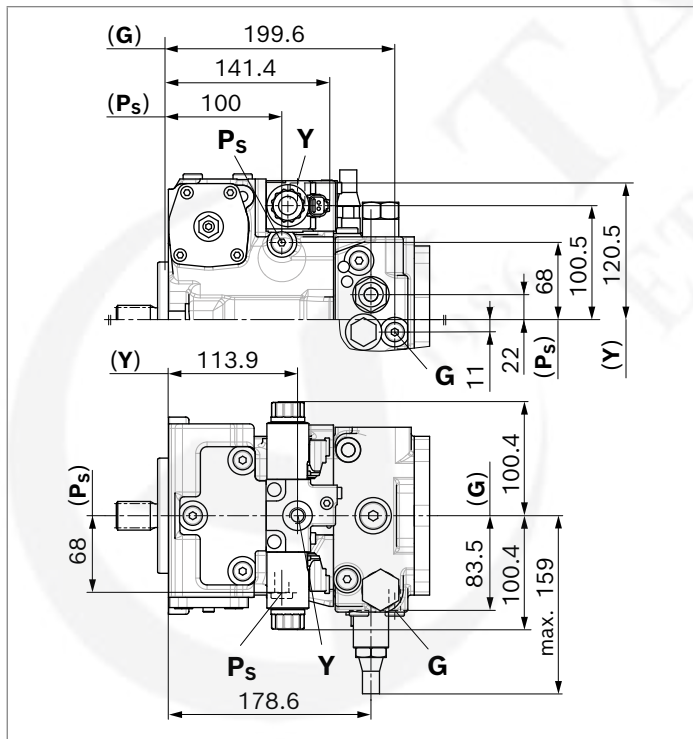
▼ DA..2 – fixed setting



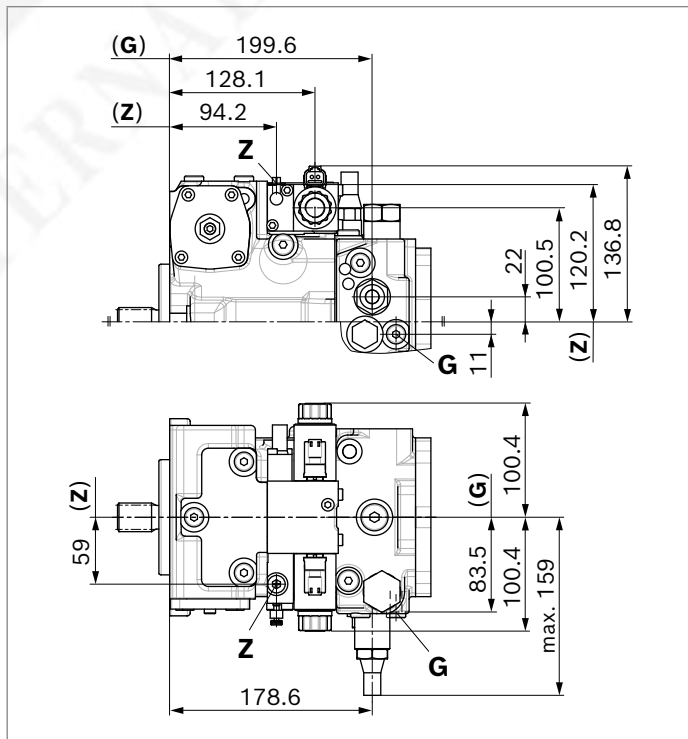
▼ DA..3 – mechanically adjustable with position lever



▼ DA..7 – fixed setting and ports for pilot control device



▼ DA..8 – fixed setting and inch valve mounted



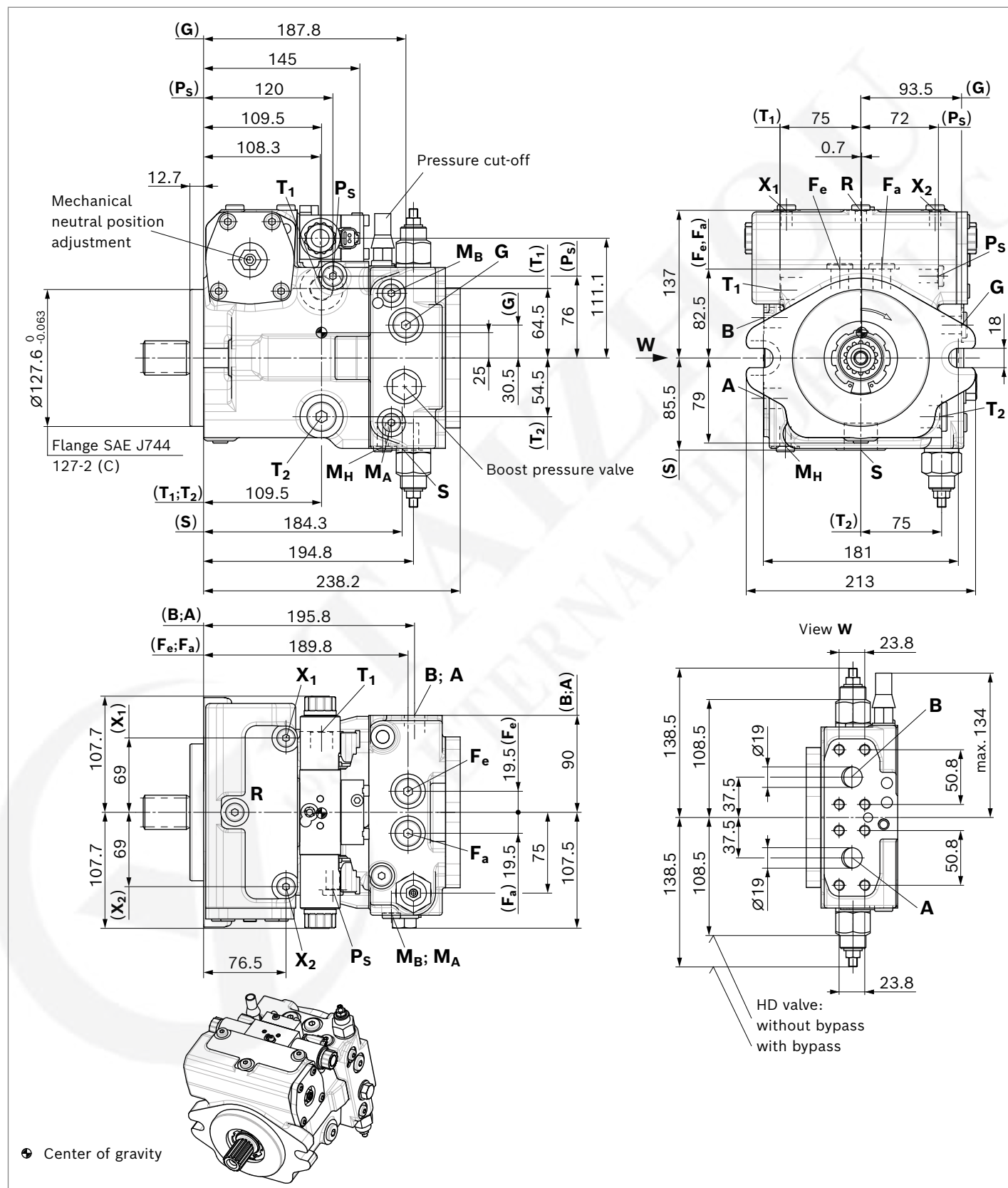
A10VG 10系列柱塞泵

A10VG Series 10 Piston Pump

Dimensions, size 63

EP – Proportional control, electric

Standard: SAE working port **A** and **B**, same side left, suction port **S** bottom (10)

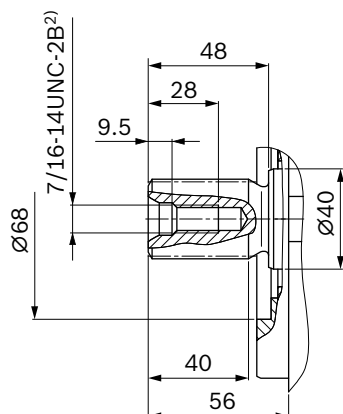


A10VG 10系列柱塞泵

A10VG Series 10 Piston Pump

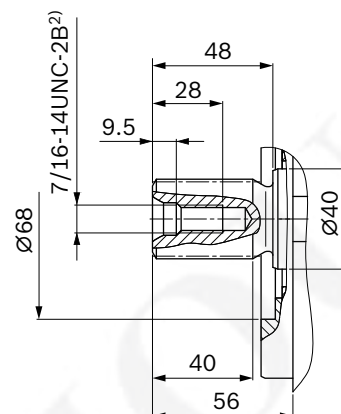
▼ Splined shaft ANSI B92.1a

S – 1 1/4 in 14T 12/24DP¹⁾



▼ Splined shaft ANSI B92.1a

T – 1 3/8 in 21T 16/32DP¹⁾



Ports	Standard	Size	p_{max} [bar] ³⁾	State ⁹⁾
A, B Working port Fastening thread	SAEJ518 ⁴⁾ DIN 13	3/4 in M10 × 1.5; 17 deep	350	O
S Suction port	DIN 3852 ⁷⁾	M33 × 2; 18 deep	5	O ⁵⁾
T₁ Drain port	DIN 3852 ⁷⁾	M22 × 1.5; 15 deep	3	O ⁶⁾
T₂ Drain port	DIN 3852 ⁷⁾	M22 × 1.5; 15 deep	3	X ⁶⁾
R Air bleed port	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	3	X
X₁, X₂ Control pressure port (upstream of orifice)	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	40	X
X₃, X₄ ⁸⁾ Stroking chamber pressure port	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	40	X
G Boost pressure port inlet	DIN 3852 ⁷⁾	M18 × 1.5; 12 deep	40	X
P_s Pilot pressure port	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	X
Y Pilot pressure port outlet (only DA..7)	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	O
M_A, M_B Measuring port pressure A, B	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	350	X
M_H Measuring port, high pressure	DIN 3852 ⁷⁾	M12 × 1.5; 12 deep	350	X
F_a Boost pressure port inlet	DIN 3852 ⁷⁾	M18 × 1.5; 12 deep	40	X
F_e Boost pressure port outlet	DIN 3852 ⁷⁾	M18 × 1.5; 12 deep	40	X
Y₁, Y₂ Pilot pressure port outlet (only HD)	DIN 3852 ⁷⁾	M14 × 1.5; 12 deep	40	O
Z Pilot pressure port (inch signal only DA..8)	DIN 3852 ⁷⁾	M10 × 1; 8 deep	80	X

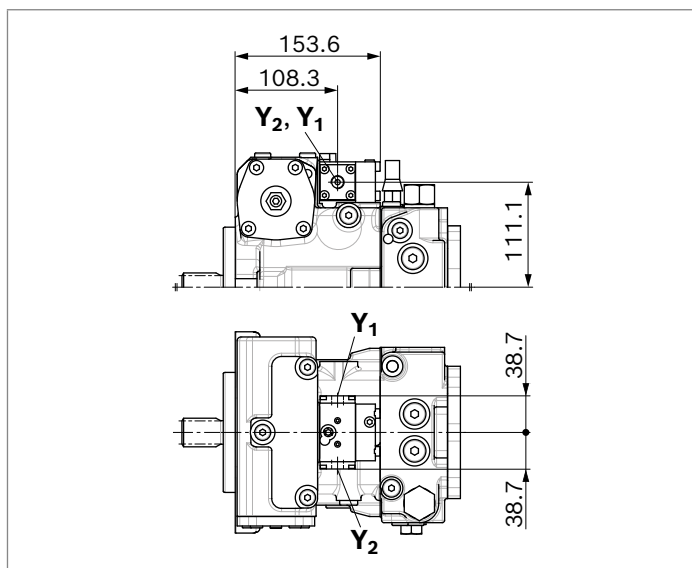
- 1) Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit, tolerance class 5
- 2) Thread according to ASME B1.1
- 3) Depending on the application, momentary pressure peaks can occur. Keep this in mind when selecting measuring devices and fittings.
- 4) Only dimensions according to SAE J518, metric fastening thread is a deviation from the standard.
- 5) Plugged for external boost pressure supply.

- 6) Depending on installation position, **T₁** or **T₂** must be connected (see also installation instructions on page 56).
- 7) The countersink can be deeper than specified in the standard. Ports designed for straight stud ends according to EN ISO 9974-2 type E
- 8) Optional, see page 49
- 9) O = Must be connected (comes plugged)
X = Plugged (in normal operation)

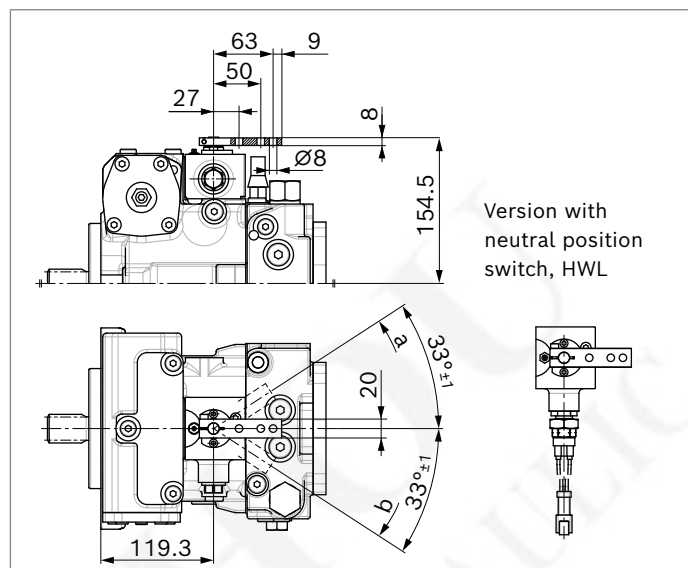
A10VG 10系列柱塞泵

A10VG Series 10 Piston Pump

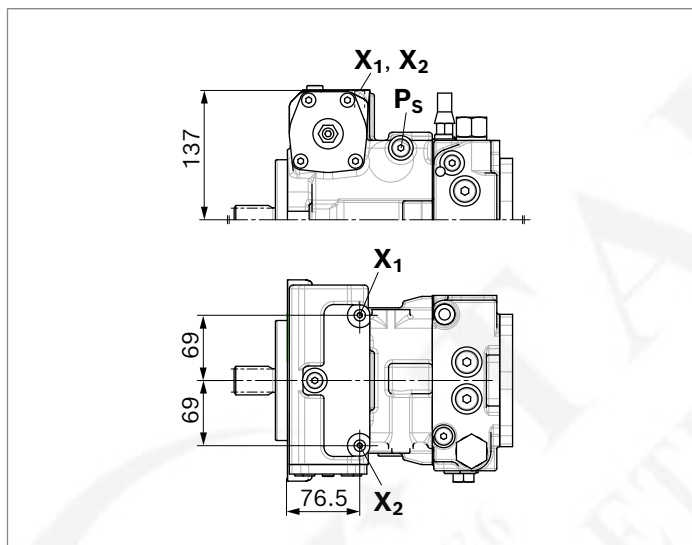
▼ **HD** – Proportional control, hydraulic, pilot-pressure related



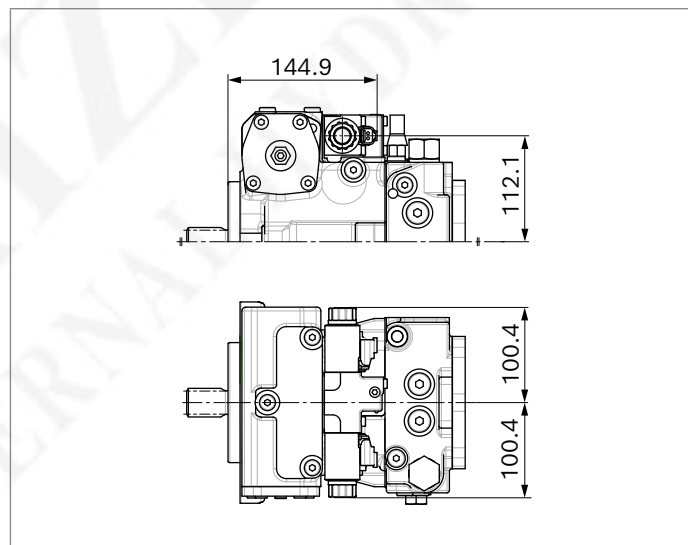
▼ **HW** – Proportional control, hydraulic, mechanical servo



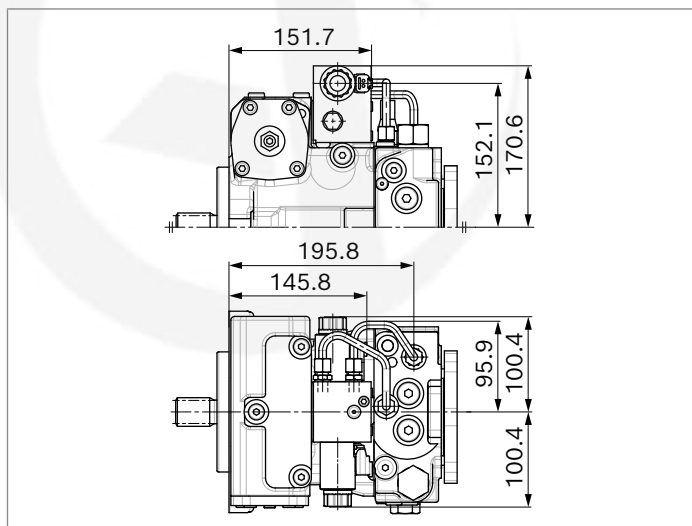
▼ **DG** – Hydraulic control, direct operated



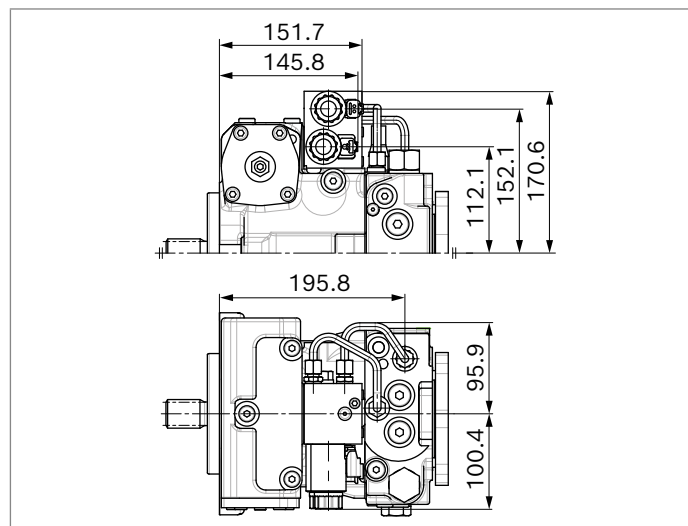
▼ **EZ** – Two-point control, electric



▼ **ED2** – Electric pressure controller



▼ **ED4** – Electric pressure controller

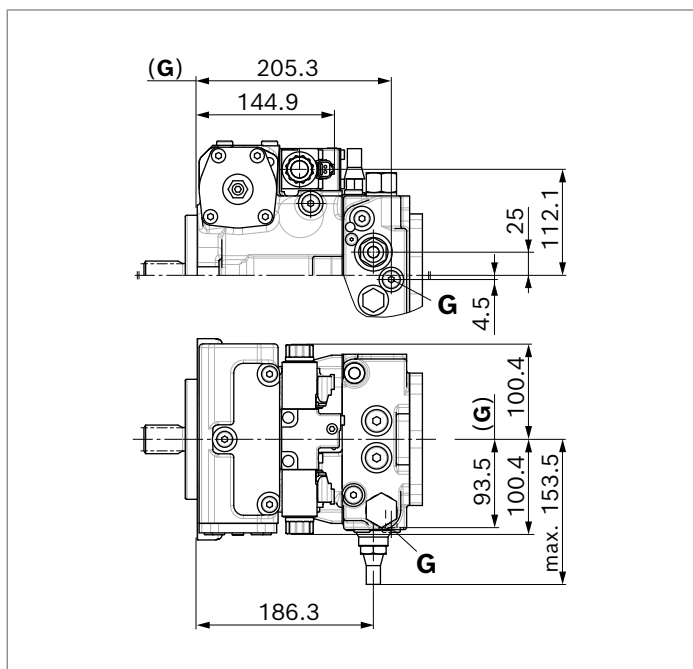


A10VG 10系列柱塞泵

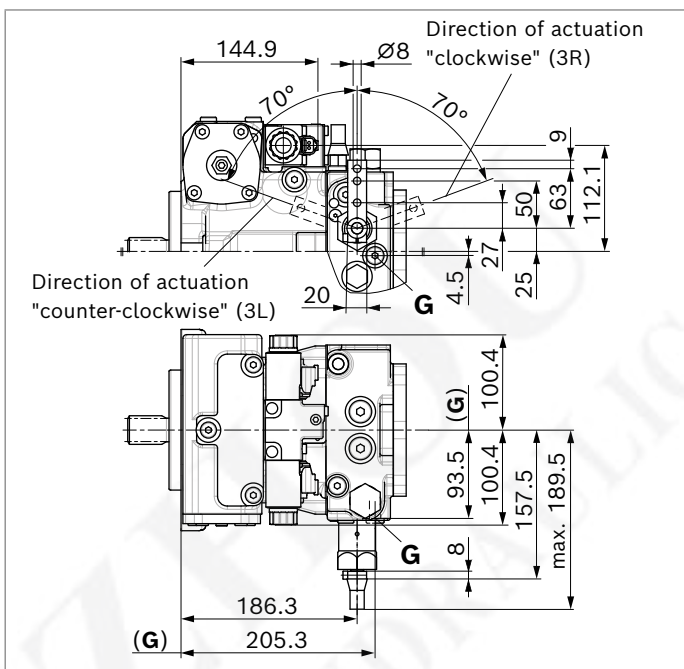
A10VG Series 10 Piston Pump

DA control valve

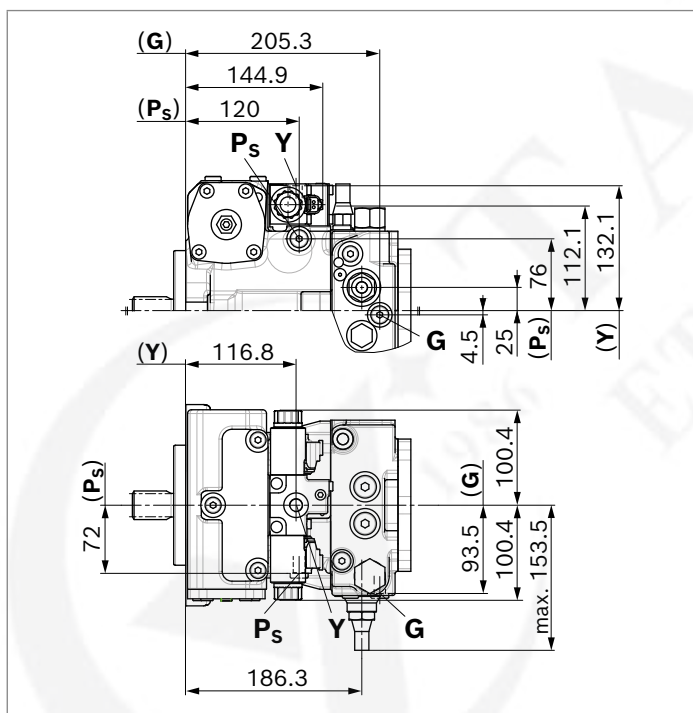
▼ DA..2 – fixed setting



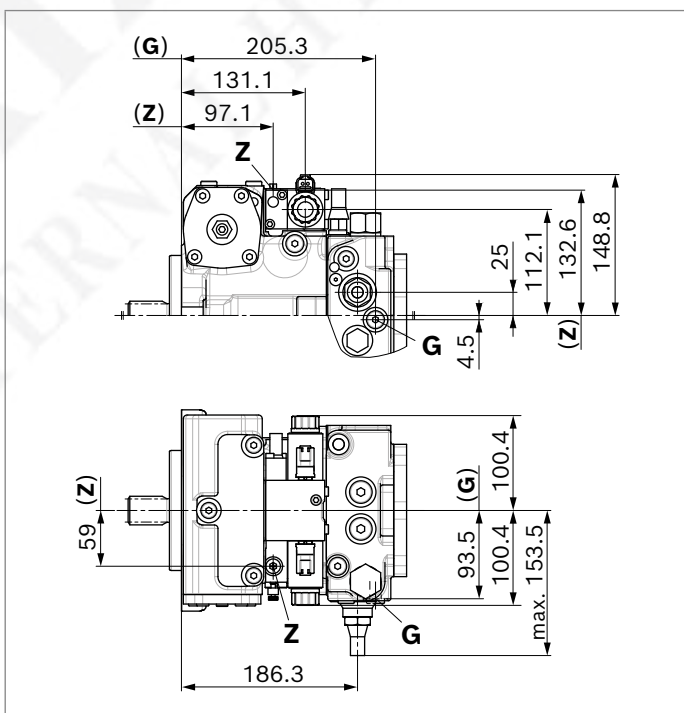
▼ DA..3 – mechanically adjustable with position lever



▼ DA..7 – fixed setting and ports for pilot control device



▼ DA..8 – fixed setting and inch valve mounted



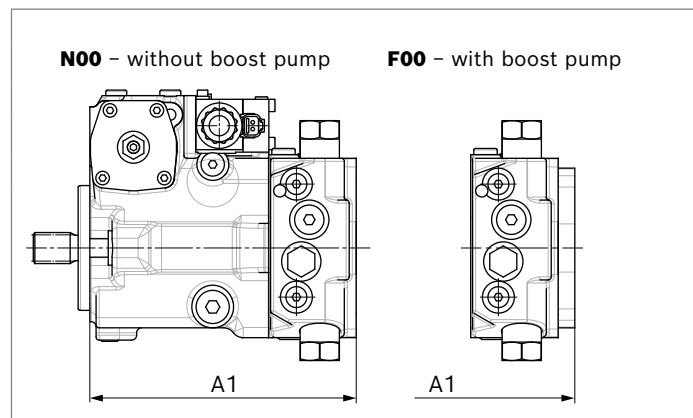
A10VG 10系列柱塞泵

A10VG Series 10 Piston Pump

Dimensions, through drive

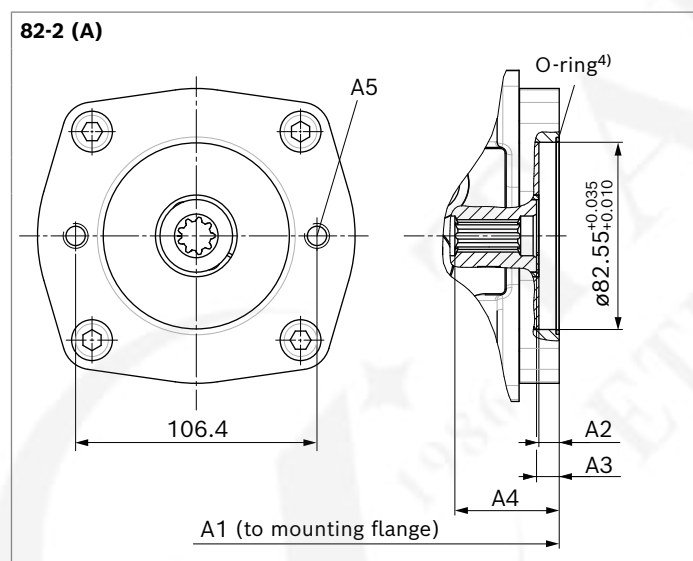
Flange SAE J744	Hub for splined shaft ¹⁾	18	28	45	63	Code
Without through drive		•	•	•	•	00
82-2 (A)	5/8 in 9T 16/32DP	•	•	•	•	01

▼ **N00** – without boost pump, without through drive / **F00** – with boost pump, without through drive



NG	A1 (N00)	A1 (F00)
18	169.4	169.4
28	201.7	215.3
45	216.8	230.5
63	224.5	238.2

▼ **F01/K01**⁵⁾



NG	A1	A2 ²⁾	A3	A4	A5 ³⁾
18	178.4	min. 8.8	9	32	M10 × 1.5; 13 deep
28	219.2	min. 8.8	9	35.7	
45	234.5	min. 8.8	9	46	
63	242.2	min. 8.8	9	45	

1) Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit, tolerance class 5

2) According to SAE J744

3) Thread according to DIN 13

4) O-ring included in the scope of delivery

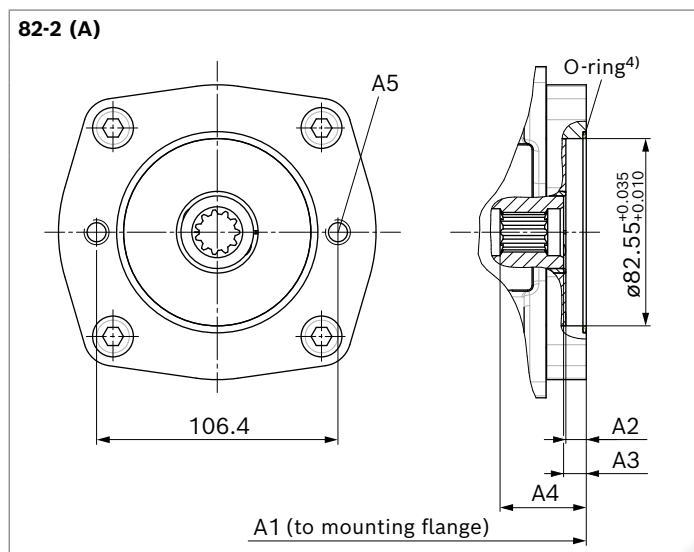
5) Please state in plain text whether the 2-hole horizontal or the 2-hole vertical version is used.

A10VG 10系列柱塞泵

A10VG Series 10 Piston Pump

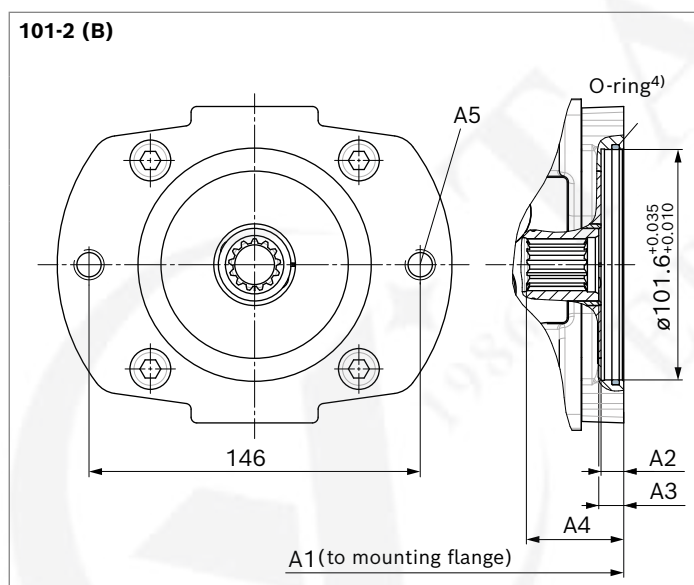
Flange SAE J744	Hub for splined shaft ¹⁾	18	28	45	63	Code
82-2 (A)	3/4 in 11T16/32DP	-	●	●	●	52
101-2 (B)	7/8 in 13T 16/32DP	●	●	●	●	02
	1 in 15T 16/32DP	-	●	●	●	04

F52/K52⁵⁾



NG	A1	A2 ²⁾	A3	A4	A5 ³⁾
28	219.1	min. 8.8	9	37.6	M10 × 1.5; 13 deep
45	234.5	min. 8.8	9	38	
63	242	min. 8.8	9	37	

▼ F02/K02; F04/K04⁵⁾



NG	A1	A2 ²⁾	A3	A4 (02)	A4 (04)	A5 ³⁾
18	187.4	min. 8.8	10	39.7	-	M12 × 1.75; 18 deep
28	220.2	min. 8.8	10	43.7	43.7	M12 × 1.75; 18.5 deep
45	235.5	min. 8.8	10	47.6	50.0	
63	243.2	min. 8.8	10	51.9	43.7	

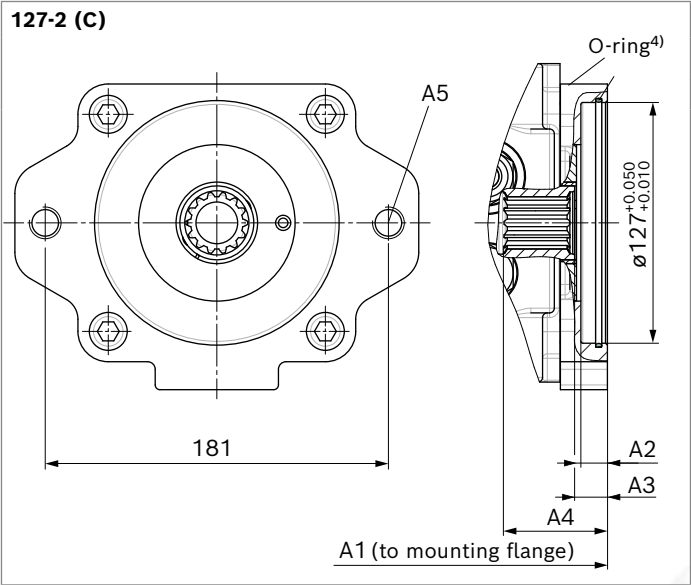
- 1) Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit, tolerance class 5
- 2) According to SAE J744
- 3) Thread according to DIN 13
- 4) O-ring included in the scope of delivery
- 5) Please state in plain text whether the 2-hole horizontal or the 2-hole vertical version is used.

A10VG 10系列柱塞泵
A10VG Series 10 Piston Pump



Flange SAE J744	Hub for splined shaft ¹⁾	18	28	45	63	Code
127-2 (C)	1 1/4 in 14T 12/24DP	-	-	-	●	07

▼ F07/K07⁵⁾



NG	A1	A2 ²⁾	A3	A4	A5 ³⁾
63	249.5	min. 8.8	14	53.9	M16 × 2; 24.8 deep

1) Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit, tolerance class 5
2) According to SAE J744
3) Thread according to DIN 13
4) O-ring included in the scope of delivery
5) Please state in plain text whether the 2-hole horizontal or the 2-hole vertical version is used.

Overview of mounting options

Through drive ¹⁾			Mounting option – 2nd pump						
Flange	Hub for splined shaft	Code	A10VG/10 NG (shaft)	A4VG/32 NG (shaft)	A10V(S) O/3X NG (shaft)	A10V(S) O/5X NG (shaft)	A11VO/1 NG (shaft)	A1VO/10	External gear pump ²⁾
82-2 (A)	5/8 in	F/K01	–	–	18 (U)	10, 18 (U)	–	–	AZPF, AZPS NG4 ... 28 AZPW NG5 ... 22
	3/4 in	F/K52	–	–	–	–	–	–	AZPF NG4 ... 28
101-2 (B)	7/8 in	F/K02	18 (S)	–	28 (S) 45 (U)	28 (S) 45 (U)	–	35 (S4)	AZPN-11 NG20 ... 25 AZPG-22 NG28 ... 100
	1 in	F/K04	28, 45 (S)	28 (S)	45 (S)	45 (S) 60, 63 (U)	40 (S)	35 (S5)	–
127-2 (C)	1 1/4 in	F/K09	63 (S)	40, 56 (S)	–	–	–	–	–

Notice

The mounting options listed only apply for drive shaft versions with undercut. Please contact us for drive shafts without undercut.

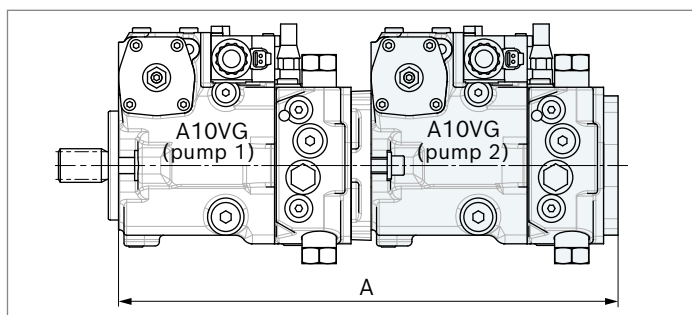
¹⁾ Availability of the individual sizes, see type code on page 4.

²⁾ Bosch Rexroth recommends special versions of the gear pumps. Please contact us.

Combination pumps A10VG + A10VG

Total length A

A10VG 1st pump	A10VG 2nd pump ¹⁾			
	NG18	NG28	NG45	NG63
NG18	356.8	–	–	–
NG28	389.6	435.5	–	–
NG45	404.9	450.8	466.0	–
NG63	412.6	458.5	473.7	487.7



By using combination pumps, it is possible to have independent circuits without the need for splitter gearboxes. When ordering combination pumps, the type designations of the 1st and 2nd pumps must be linked by a "+".

Order example:

A10VG45EP4D1/10R-NTC10F043SP +

A10VG45EP4D1/10R-NSC10F003SP

For combination pumps, we recommend a support.

Without additional support from the second pump, calculation of the mounting flange is necessary for every load case, please contact us.

Notice

- The combination pump type code is shown in shortened form in the order confirmation.
- The permissible through-drive torques are to be observed (see page 9).

¹⁾ 2. pump without through drive and with boost pump, F00