

HIDROSTATIČKI SERVOUPRAVLJAČI

OPIS

- Primenjuju se na građevinskim i poljoprivrednim mašinama, sredstvima unutrašnjeg transporta, kao i na drugim vozilima čija brzina ne prelazi 50 km/h.

- Potpuna hidraulička veza između točka upravljača i upravljanih točkova vozila, bez njihove međusobne mehaničke veze.

- U nultom (neutralnom) položaju komore cilindra su blokirane, a pogonska pumpa povezana sa rezervoarom. Pri pravoj vožnji nema povratnog dejstva upravljanih točkova na točak upravljača.

- Minimalna sila na točku upravljača i velika preciznost upravljanja.

- Kompaktna konstrukcija, kao rezultat korišćenja najsavremenijih tehnoloških rešenja.

- Vrhunski kvalitet, kao rezultat dugogodišnjeg iskustva u proizvodnji servoupravljača.



HYDROSTATIC SERVO STEERING GEARS

DESCRIPTION

- Applied to building-construction and agricultural machines, local means of transportation, as well as to other vehicles the running speed of which does not exceed 50 km/h.

- Complete hydraulic link between the steering wheel and steered wheels on a vehicle, without their mutual mechanical feedback.

- In zero (neutral) position, cylinder chambers are locked and the drive pump connected to the tank. At straight motion there is no feedback of the steered wheels to the steering wheel.

- Minimum force exerted on steering wheel and great steering accuracy.

- Compact design as a result of most advanced technological achievements being used.

- Top quality, as a result of many-year experience in the production of servo steering gears.

OPŠTE HIDRAULIČKE KARAKTERISTIKE

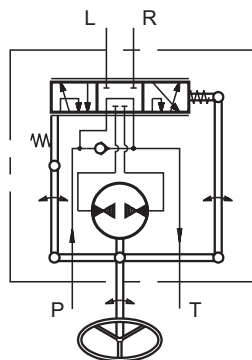
Moment upravljanja	pri normalnom funkcionisanju	~ 0,3 daNm
	ručno upravljanje (nedovolj. protok ulja)	~ 12 daNm
Radni fluid	mineralno ulje	
	viskozitet (mm ² /s)	od 20 do 40 (pri 50°C)
	temperatura (°C)	stalna temperatura u rezervoaru do +80, (dozvoljeno, kratkotrajno, i do +100)

GENERAL HYDRAULIC CHARACTERISTIC

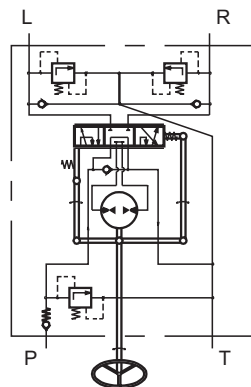
Steering torque	In normal steering situation	~ 0,3 daNm
	Manual steering at insufficient oil flow	~ 12 daNm
Working fluid	mineral oil	
	viscosity (mm ² /s)	from 20 to 40 (at 50°C)
	temperature (°C)	constant temperature up to +80, (short-term up to 100 permissible)

SIMBOL SYMBOL

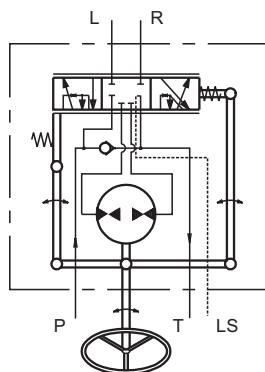
Tip Type 1



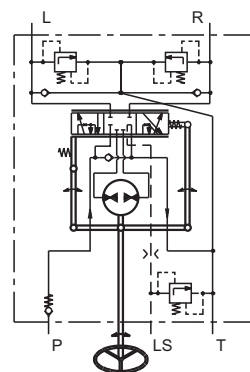
Tip Type 2



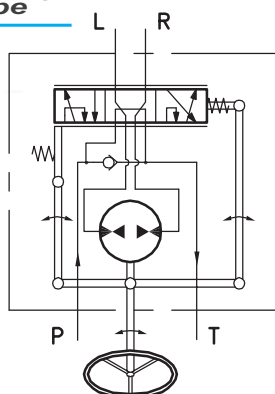
Tip Type 3



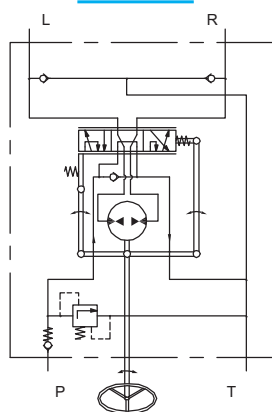
Tip Type 4



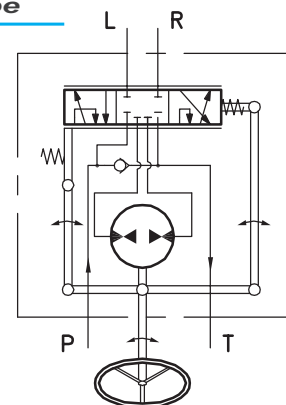
Tip Type 5



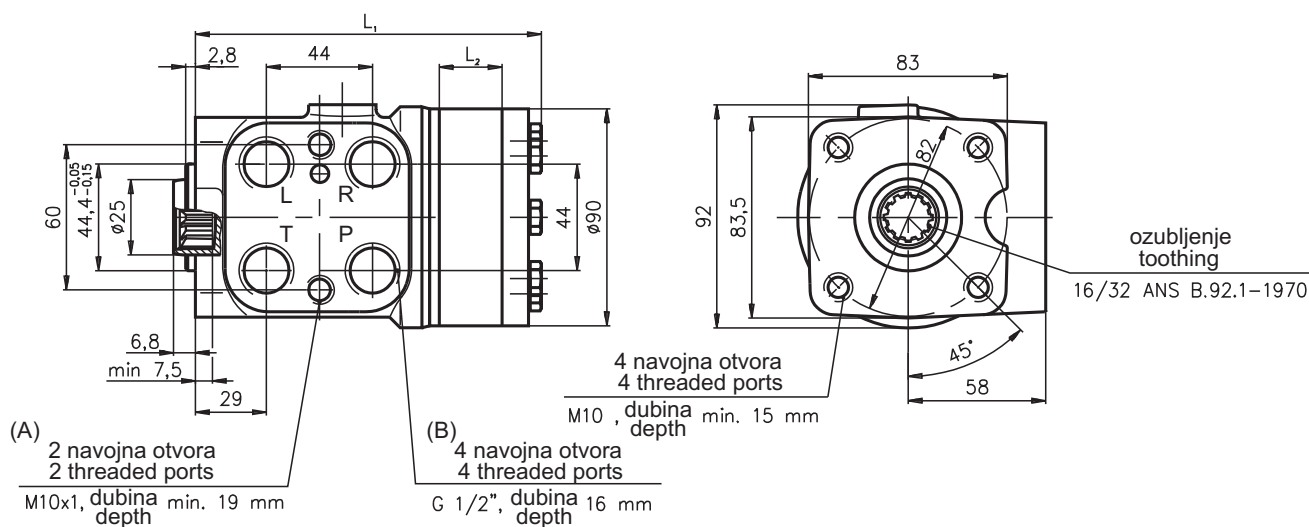
Tip Type 6



Tip Type 7



UGRADNI CRTEŽ
MOUNTING DIMENSIONS



Oznaka Designation	Specifini protok Specific flow (cm ³ /o) (cm ³ /rev)	Potreban protok servopumpe Required flow of servo pump (l/min)	L ₁ (mm)	L ₂ (mm)	Max. pritisak Max. pressure (bar)		Masa Mass (kg)
					P vod line	T vod line	
1031 050 ON	50	5	125	6,5	140	20	5,2
1031 063 ON	63	6,3	127	8,2			5,2
1031 080 ON	80	8	129	10,4			5,3
1031 100 ON	100	10	132	13,0			5,4
1031 125 ON	125	12,5	135	16,3			5,5
1031 160 ON	160	16	139	20,8			5,6
1031 200 ON	200	20	145	26,0			5,8
1031 250 ON	250	25	152	32,5			6,0
1031 315 ON	315	31,5	159	40,9			6,2
1031 400 ON	400	40	171	52,0			7,0
1031 500 ON	500	50	184	65,0			7,6
1031 630 ON	630	63	201	82,0			7,9
1031 800 ON	800	80	223	104,0			8,3

NARUČIVANJE
ORDERING

Hidrostatički servoupravljači se naručuju prema oznakama iz tabele.
Hydrostatic servo steering gears to be ordered according designations from the table.

NAPOMENA:

Postoji i podvarijanta gde su mere: A= M10 i B=M22x1,5, čija se oznaka dobija zamenom osnovnog broja 1031 brojem 1032 (npr. 1032 080 ON).

NOTE:

There is also a sub-variant with a following dimensions: A= M10 i B=M22x1,5, its designation is made by changing original number 1031 with number 1032 (example: 1032 080 ON).

Tip 2 Type 2

UGRADNI CRTEŽ MOUNTING DIMENSIONS

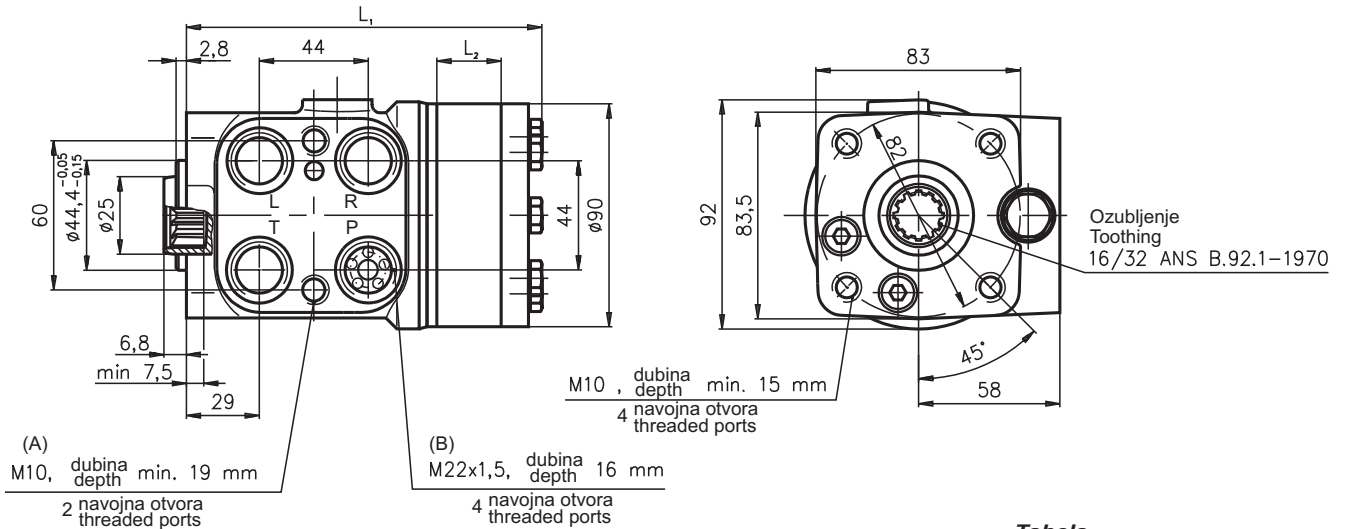


Tabela 1
Table 1

Oznaka Designation	Specifični protok Specific flow (cm ³ /o)	Potreban protok servopumpe Required flow of servo pump (l/min)	L_1 (mm)	L_2 (mm)	Maksimalni pritisak Max. pressure (bar)		Masa Mass (kg)
					P vod line	T vod line	
1132 050 X ON	50	5	125	6,5	videti tabelu 2 see table 2	20	
1132 063 X ON	63	6,3	127	8,2			
1132 080 X ON	80	8	129	10,4			
1132 100 X ON	100	10	132	13,0			
1132 125 X ON	125	12,5	135	16,3			
1132 160 X ON	160	16	139	20,8			
1132 200 X ON	200	20	145	26,0			
1132 250 X ON	250	25	152	32,5			
1132 315 X ON	315	31,5	159	40,9			
1132 400 X ON	400	40	171	52,0			
1132 500 X ON	500	50	184	65,0			

Tabela 2
Table 2

Podešeni pritisci ventila Set pressure of valves (bar)											
$p_1=150$ $p_2=90$	$p_1=200$ $p_2=140$	$p_1=240$ $p_2=175$	$p_1=160$ $p_2=120$	$P_1=160$ bez vent. sig. no saf. valve	$p_1=120$ $p_2=80$	$p_1=200$ $p_2=120$	$p_1=200$ $p_2=160$	$p_1=180$ $p_2=140$	$P_1=140$ bez vent. sig. no saf. valve	$p_1=160$ $p_2=100$	$p_1=140$ $p_2=100$
A	B	C	D	E	F	G	H	I	J	K	L

p_1 =podešen pritisak udarnih ventila p_1 = set pressure at shock valve
 p_2 =podešen pritisak ventila sigurnosti p_2 = set pressure at safety valve

NARUČIVANJE ING

Hidrostatički servoupravljači se naručuju prema oznakama iz tabele.

Oznaka za naručivanje se formira zamenom slova X u oznaci (tabela 1) odgovarajućim slovnim simbolom (prema odabranoj kombinaciji pritiska ventila) iz tabele 2.

(npr. 1132 315 B ON za podešen pritisak udarnih ventila 200 bar i ventila sigurnosti 140 bar)

Hydrostatic servo steering gears to be ordered according designations from the table.

Ordering designation is formed by changing letter X in designation (table 1) with corresponding letter (according to chosen combination of valve pressure) from table 2.

(e.g. 1132 315 B ON for set pressure at shock valves 200 bar and safety valve 140 bar)

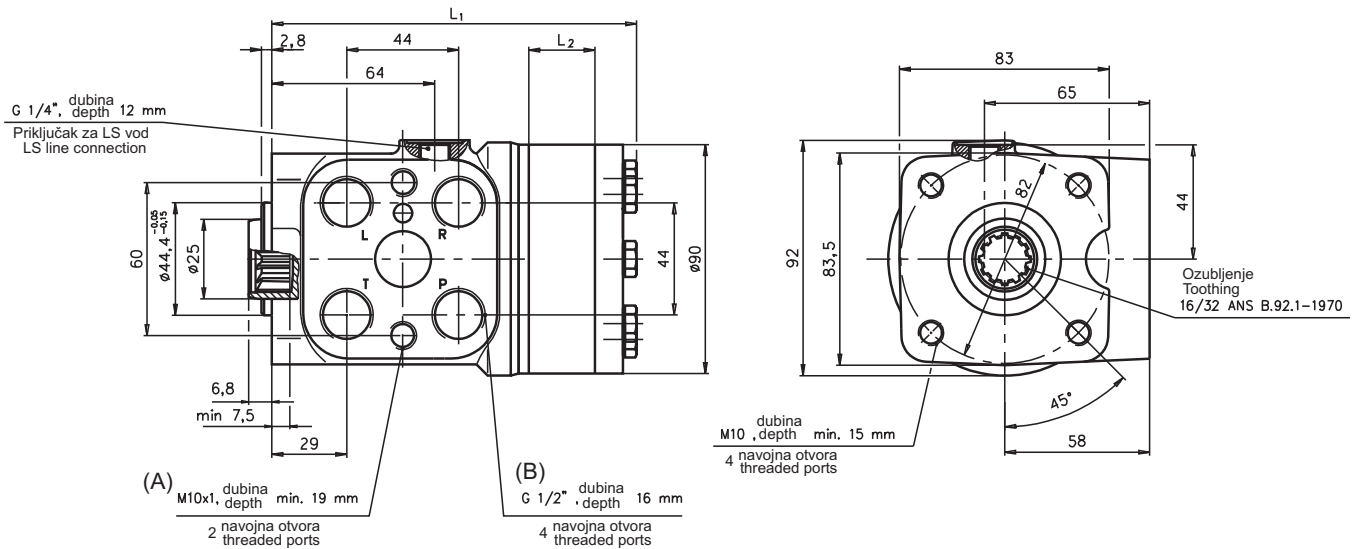
Postoji i podvarijanta gde su mere A= M10x1 i B=G¹/₂" , čija se oznaka dobija zamenom osnovnog broja 1132 brojem 1131 (npr. 1131 080 A ON).

NOTE:

There is also a sub-variant with a following dimensions: A= M10 i B=G¹/₂" ,

its designation is made by changing original number 1132 with number 1131 (example: 1131 080 A ON).

UGRADNI CRTEŽ
MOUNTING DIMENSIONS



Oznaka Designation	Specifični protok Specific flow (cm ³ /o) (cm ³ /rev)	Potreban protok servopumpe Required flow of servo pump (l/min)	L ₁ (mm)	L ₂ (mm)	Maksimalni pritisak Max. pressure (bar)		Masa Mass (kg)
					P vod line	T vod line	
1031 315 LS	315	31,5	159	40,9	175	15	
1031 400 LS	400	40,0	171	52,0			
1031 500 LS	500	50,0	184	65,0			
1031 630 LS	630	63,0	201	82,0			
1031 800 LS	800	80,0	223	104,0			

NARUČIVANJE
ORDERING

Hidrostatički servoupravljači se naručuju prema oznakama iz tabele.
Hydrostatic servo steering gears to be ordered according designations from the table.

NAPOMENA:

Postoji i podvarijanta gde su mere A= M10 i B=M22x1,5 , čija se oznaka dobija zamenom osnovnog broja 1031 brojem 1032 (npr. 1032 315 LS).

NOTE:

There is also a sub-variant with the following dimensions A= M10 i B=M22x1,5 , its designation is made by changing original number 1031 with number 1032 (e.g. 1032 315 LS).

Tip Type 4

UGRADNI CRTEŽ MOUNTING DIMENSIONS

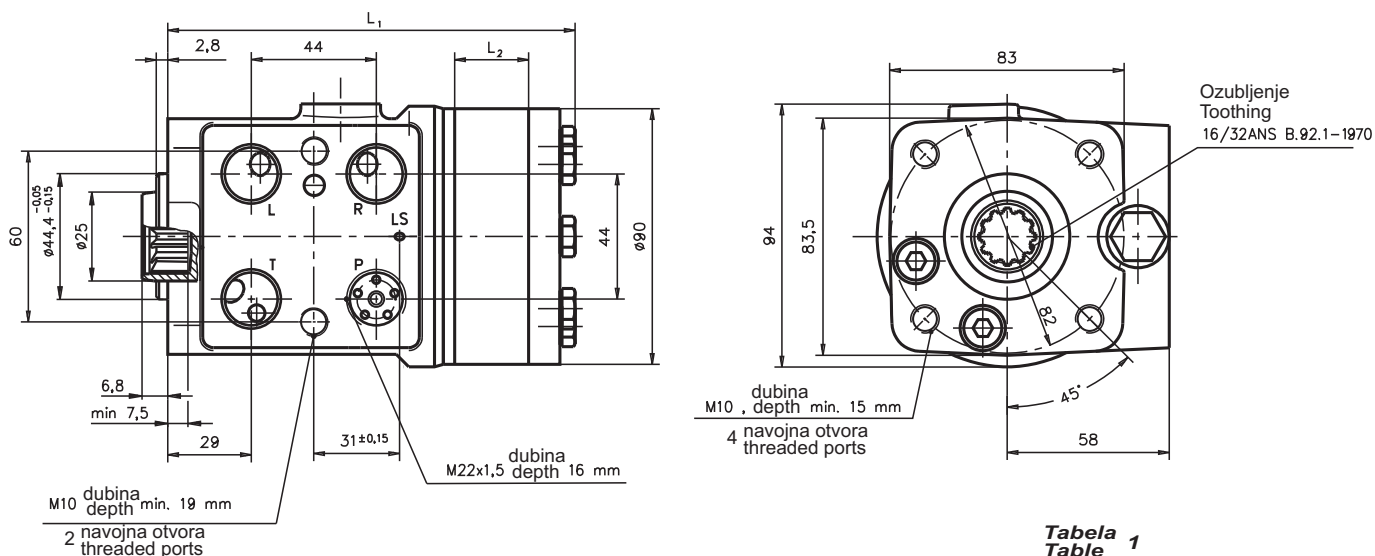


Tabela 1
Table 1

Oznaka Designation	Specifični protok Specific flow (cm ³ /o) (cm ³ /rev)	Potreban protok servopumpe Required flow of servo pump (l/min)	L_1 (mm)	L_2 (mm)	Maksimalni pritisak Max. pressure (bar)		Masa Mass (kg)
					P vod line	T vod line	
1132 050 X LS	50	5	125	6,5	videti tabelu 2 see table 2	15	
1132 063 X LS	63	6,3	127	8,2			
1132 080 X LS	80	8	129	10,4			
1132 100 X LS	100	10	132	13,0			
1132 125 X LS	125	12,5	135	16,3			
1132 160 X LS	160	16	139	20,8			
1132 200 X LS	200	20	145	26,0			
1132 250 X LS	250	25	152	32,5			
1132 315 X LS	315	31,5	159	40,9			
1132 400 X LS	400	40	171	52,0			
1132 500 X LS	500	50	184	65,0			

Tabela 2
Table 2

	Podešeni pritisci ventila Set pressure of valves (bar)											
	$p_1=150$ $p_2=90$	$p_1=200$ $p_2=140$	$p_1=240$ $p_2=175$	$p_1=160$ $p_2=120$	$P_1=160$ bez vent. sig. no saf. valve	$p_1=120$ $p_2=80$	$p_1=200$ $p_2=120$	$p_1=200$ $p_2=160$	$p_1=180$ $p_2=140$	$P_1=140$ bez vent. sig. no saf. valve	$p_1=160$ $p_2=100$	$p_1=140$ $p_2=100$
X	A	B	C	D	E	F	G	H	I	J	K	L

p_1 =podešen pritisak udarnih ventila p_1 = set pressure at shock valve
 p_2 =podešen pritisak ventila sigurnosti p_2 = set pressure at safety valve

NARUČIVANJE ORDERING

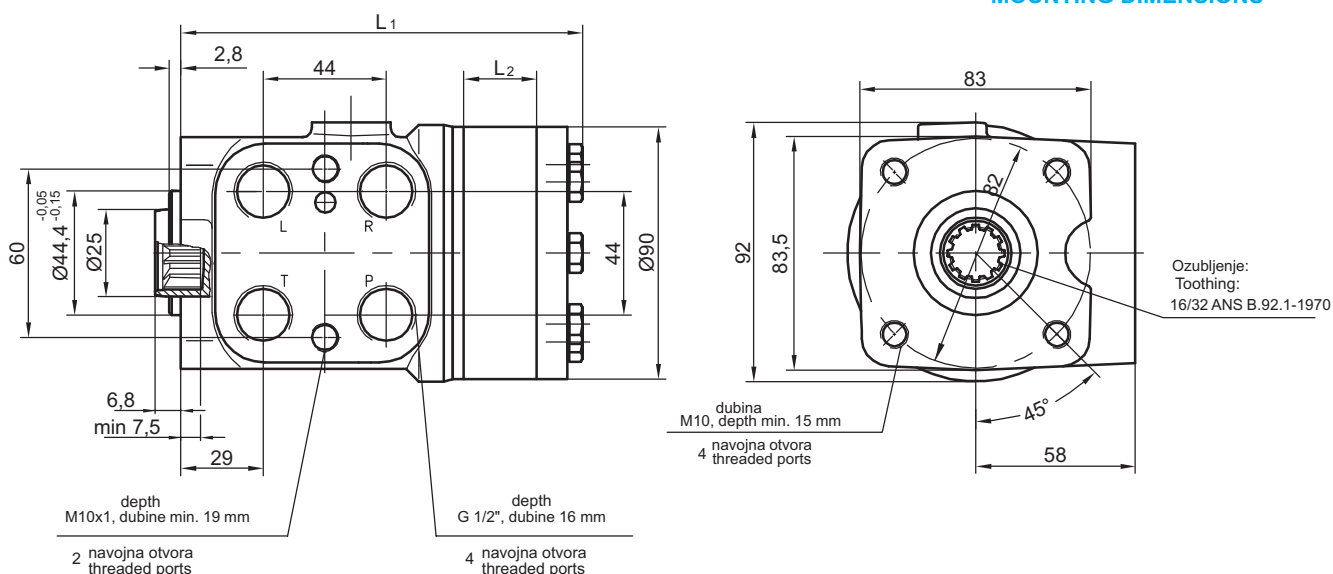
Hidrostatički servoupravljači se naručuju prema oznakama iz tabele.

Oznaka za naručivanje se formira zamenom slova X u oznaci (tabela 1) odgovarajućim slovnim simbolom (prema odabranoj kombinaciji pritiska ventila) iz tabele 2.
(npr. 1132 315 B LS za podešen pritisak udarnih ventila 200 bar i ventila sigurnosti 140 bar)

Hydrostatic servo steering gears to be ordered according designations from the table.

Ordering designation is formed by changing letter X in designation (table 1) with corresponding letter (according to chosen combination of valve pressure) from table 2.
(e.g. 1132 315 B LS for set pressure at shock valves 200 bar and safety valves 140 bar)

UGRADNI CRTEŽ
MOUNTING DIMENSIONS



Oznaka Designation	Specifini protok Specific flow (cm ³ /o) (cm ³ /rev)	Potreban protok servopumpe Required flow of servo pump (l/min)	L_1 (mm)	L_2 (mm)	Max. pritisak Max. pressure (bar)		Masa Mass (kg)
					P vod line	T vod line	
1031 050 OR	50	5	125	6,5	140	20	5,2
1031 063 OR	63	6,3	127	8,2			5,2
1031 080 OR	80	8	129	10,4			5,3
1031 100 OR	100	10	132	13,0			5,4
1031 125 OR	125	12,5	135	16,3			5,5
1031 160 OR	160	16	139	20,8			5,6
1031 200 OR	200	20	145	26,0			5,8
1031 250 OR	250	25	152	32,5			6,0
1031 315 OR	315	31,5	159	40,9			6,2
1031 400 OR	400	40	171	52,0			7,0
1031 500 OR	500	50	184	65,0	7,6		

NARUČIVANJE
ORDERING

Hidrostatički servoupravljači se naručuju prema oznakama iz tabele.
Hydrostatic servo steering gears to be ordered according designations from the table.

NAPOMENA:

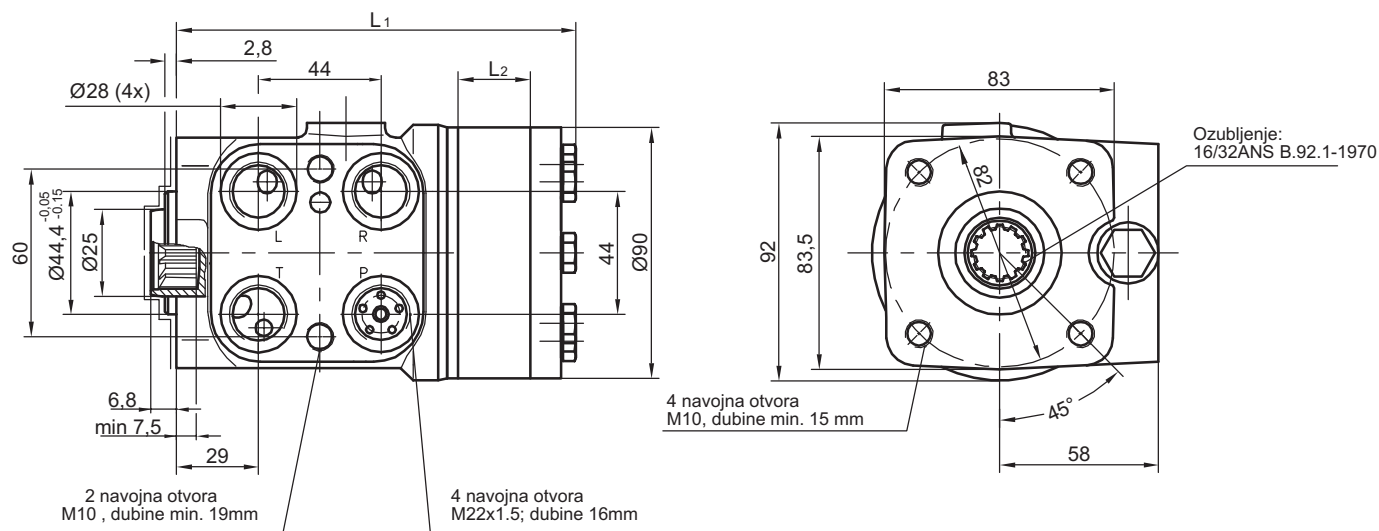
Postoji i podvarijanta gde su mere: A= M10 i B=M22x1,5, čija se oznaka dobija zamenom osnovnog broja 1031 brojem 1032 (npr. 1032 080 OR).

NOTE:

There is also a sub-variant with a following dimensions: A= M10 i B=M22x1,5, its designation is made by changing original number 1031 with number 1032 (example: 1032 080 OR).

Tip 6 Type 6

UGRADNI CRTEŽ MOUNTING DIMENSIONS



2

Tabela 1
Table 1

Oznaka Designation	Specifični protok Specific flow (cm ³ /o) (cm ³ /rev)	Potreban protok servopumpe Required flow of servo pump (l/min)	L_1 (mm)	L_2 (mm)	Maksimalni pritisak Max. pressure (bar)		Masa Mass (kg)
					P vod line	T vod line	
1132 050 X OR	50	5	125	6,5	videti tabelu 2 see table 2	20	
1132 063 X OR	63	6,3	127	8,2			
1132 080 X OR	80	8	129	10,4			
1132 100 X OR	100	10	132	13,0			
1132 125 X OR	125	12,5	135	16,3			
1132 160 X OR	160	16	139	20,8			
1132 200 X OR	200	20	145	26,0			
1132 250 X OR	250	25	152	32,5			
1132 315 X OR	315	31,5	159	40,9			
1132 400 X OR	400	40	171	52,0			
1132 500 X OR	500	50	184	65,0			

Tabela 2
Table 2

	Podešeni pritisci ventila Set pressure of valves (bar)							
	$p_1=150$ $p_2=90$	$p_1=200$ $p_2=140$	$p_1=240$ $p_2=175$	$p_1=160$ $p_2=120$	$P_1=160$ bez vent. sig. no saf. valve	$p_1=120$ $p_2=80$	$p_1=200$ $p_2=160$	$p_1=160$ $p_2=100$
X	A	B	C	D	E	F	H	K

p_1 =podešen pritisak udarnih ventila p_1 = set pressure at shock valve
 p_2 =podešen pritisak ventila sigurnosti p_2 = set pressure at safety valve

Hidrostatički servoupravljači se naručuju prema oznakama iz tabele.

Oznaka za naručivanje se formira zamenom slova X u oznaci (tabele 1) odgovarajućim slovnim simbolom (prema odabranoj kombinaciji pritiska ventila) iz tabele 2.

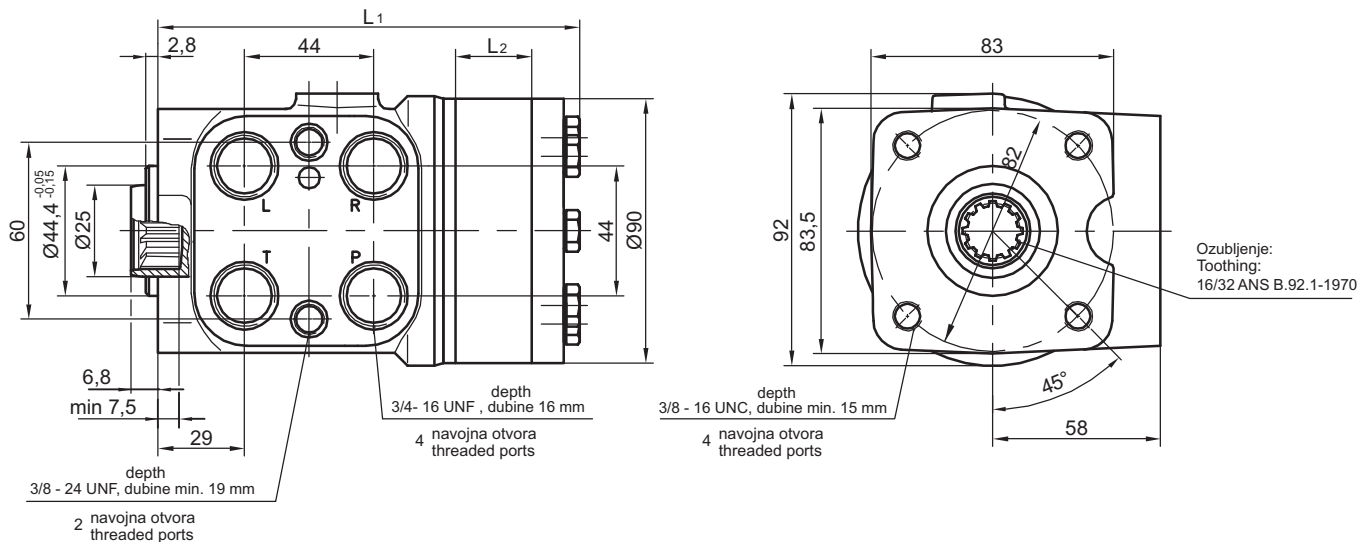
(npr. 1132 315 H OR za podešen pritisak udarnih ventila 200 bar i ventila sigurnosti 160 bar)

Hydrostatic servo steering gears to be ordered according designations from the table.

Ordering designation is formed by changing letter X in designation (table 1) with corresponding letter (according to chosen combination of valve pressure) from table 2.

(e.g. 1132 315 H OR for set pressure at shock valves 200 bar and safety valves 160 bar)

UGRADNI CRTEŽ
MOUNTING DIMENSIONS



Oznaka Designation	Specifini protok Specific flow (cm ³ /o) (cm ³ /rev)	Potreban protok servopumpe Required flow of servo pump (l/min)	L ₁ (mm)	L ₂ (mm)	Max. pritisak Max. pressure (bar)		Masa Mass (kg)
					P vod line	T vod line	
1033 050 CN	50	5	125	6,5	140	20	5,2
1033 063 CN	63	6,3	127	8,2			5,2
1033 080 CN	80	8	129	10,4			5,3
1033 100 CN	100	10	132	13,0			5,4
1033 125 CN	125	12,5	135	16,3			5,5
1033 160 CN	160	16	139	20,8			5,6
1033 200 CN	200	20	145	26,0			5,8
1033 250 CN	250	25	152	32,5			6,0
1033 315 CN	315	31,5	159	40,9			6,2
1033 400 CN	400	40	171	52,0			7,0

NARUČIVANJE
ORDERING

Hidrostatički servoupravljači se naručuju prema oznakama iz tabele.

Hydrostatic servo steering gears to be ordered according designations from the table.