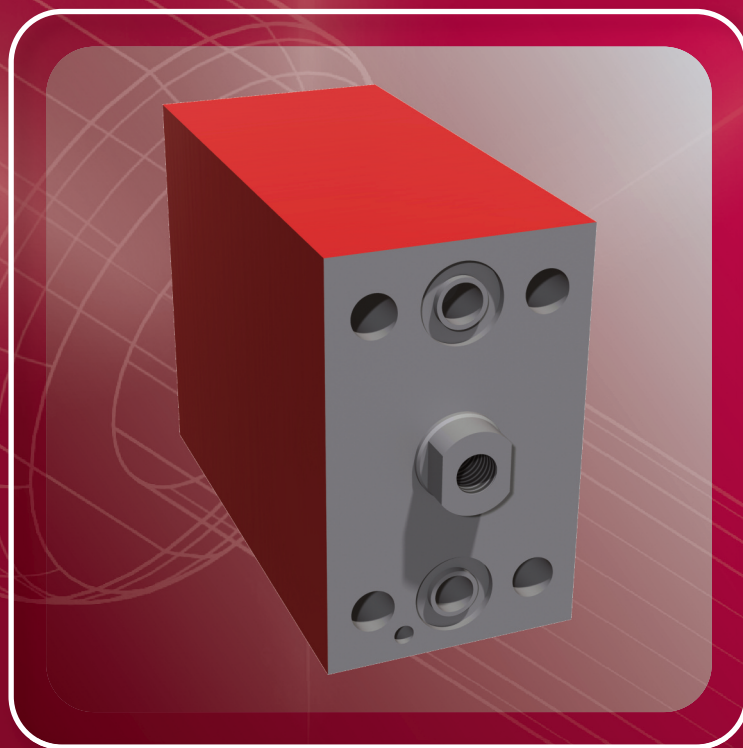


Hydraulic Cylinders

Double Acting



VXP SERIE

ISO Seals

Maximum working Pressure : 300 bar

Bores : Ø25 to 125 mm







VXP SERIE

■ GENERAL CHARACTERISTICS

- Use Pressure : 160 - 300 bar maxi
- Test Pressure : 450 bar
- Fluids : Hydraulic Mineral oils HM-HL
10 to 40 Cst at 50 °C
very low-flammability inflammables C or D class
- Temperature : from -20 to +80 °C : Seals class N
up to +200 °C : Seals class V
glycol water max 90 °C : Seals class G
- Operating speed : 0.5 m/sec max.
- Filtering : ISO 17/14 or better
- Direct fitting ports "manifold"
- Sealing by O-Ring

■ FORCES

- Thrust force (daN)

Ø Bore	Section cm ²	Pressure (bar)						
		90	120	140	160	180	200	300
25	4,90	441	588	686	784	882	980	1 470
32	8,04	723	965	1 126	1 286	1 447	1 608	2 412
40	12,56	1 130	1 500	1 760	2 009	2 260	2 512	3 768
50	19,63	1 766	2 350	2 740	3 140	3 530	3 925	5 889
63	31,17	2 805	3 740	4 363	4 987	5 610	6 230	9 351
80	50,26	4 523	6 031	7 036	8 040	9 045	10 052	15 078
100	78,54	7 065	9 420	10 995	12 565	14 135	15 705	23 562
125	122,72	11 045	14 725	17 180	19 635	22 090	24 540	36 816

All dimensions are in mm

- Pull force (daN)

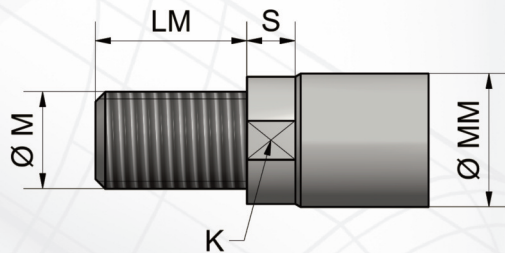
Ø Bore	Ø Rod	Annular area cm ²	Pressure (bar)						
			90	120	140	160	180	200	300
25	16	2,90	261	348	406	464	522	580	870
32	18	5,50	495	660	770	880	990	1 100	1 650
40	22	8,76	789	1 052	1 227	1 402	1 578	1 753	2 628
50	28	13,48	1 213	1 617	1 888	2 155	2 425	2 695	4 044
63	36	21,00	1 885	2 515	2 935	3 355	3 775	4 195	6 300
80	45	34,36	3 090	4 120	4 810	5 495	6 185	6 870	10 308
100	56	53,91	4 850	6 465	7 545	8 625	9 700	10 780	16 173
125	70	84,24	7 580	10 105	11 790	13 475	15 160	16 845	25 272

All dimensions are in mm

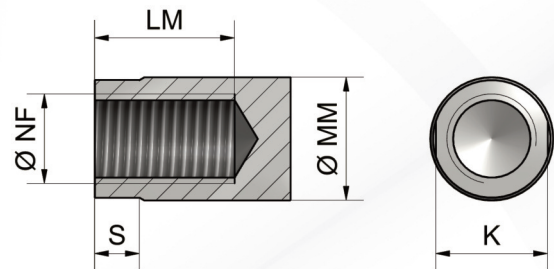
VXP SERIE

■ ROD END

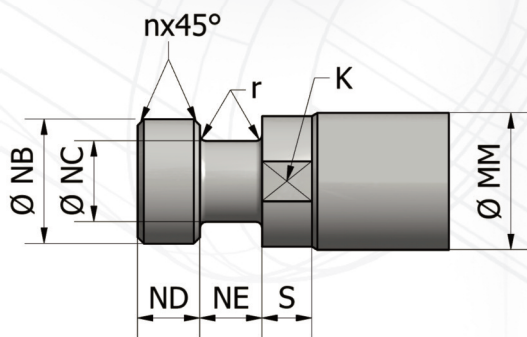

EXTERIOR THREAD (code1)



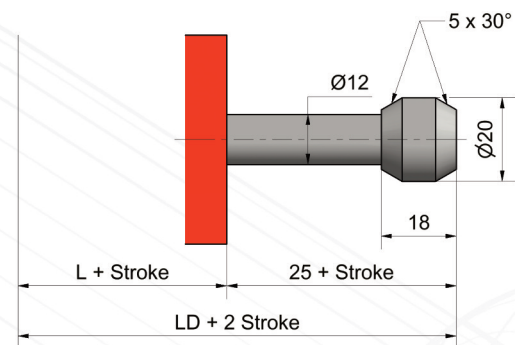
INTERIOR THREAD (code2)



TENON (code3)



INFORMATION ROD (codeD)



Ø Bore	25	32	40	50	63	80	100	125
Ø MM (Ø Rod)	16	18	22	28	36	45	56	70
K	12	14	17	22	30	36	46	60
LM	20	20	25	30	40	50	60	70
Ø M	M12x1,25	M12x1,25	M16x1,5	M20x1,5	M27x2	M33x2	M42x2	M52x2
Ø BN	14	16	20	25	33	42	53	67
Ø NC	8	10	13	16	22	30	36	46
ND ^{h13}	6	8	10	13	16	20	30	30
NE ^{H11}	6	8	10	13	16	20	30	30
n	0,5	1	1	1	2	2	2	2
r	1	1	1	1	2	2	2	2
Ø NF	M8x1,25	M8x1,25	M10x1,5	M16x1,5	M20x1,5	M27x2	M33x2	M42x2
S	5	6	8	8	10	12	12	13

All dimensions are in mm



VXP SERIE

OPERATING MODE

• L1 Non Cushioned :



• L2 Front and Rear Cushioned :

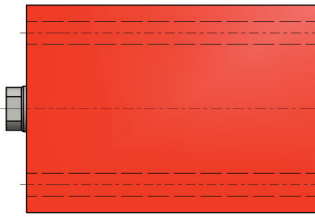
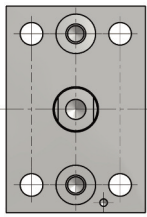
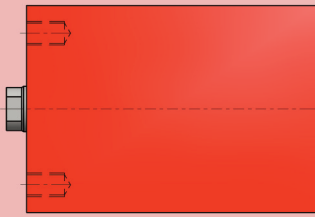
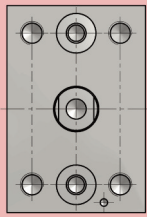
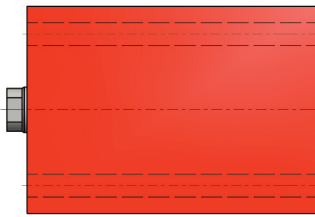
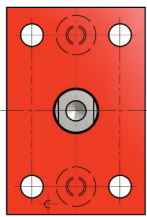

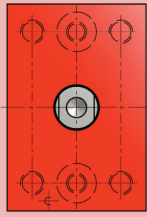


• L3 Front Cushioned :



• L4 Rear Cushioned :

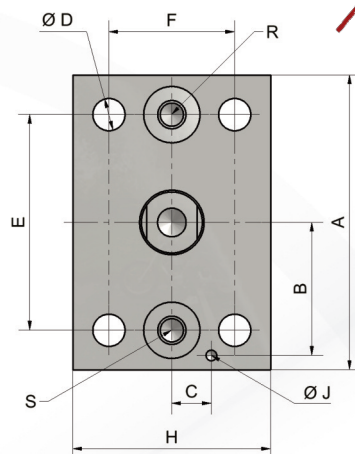
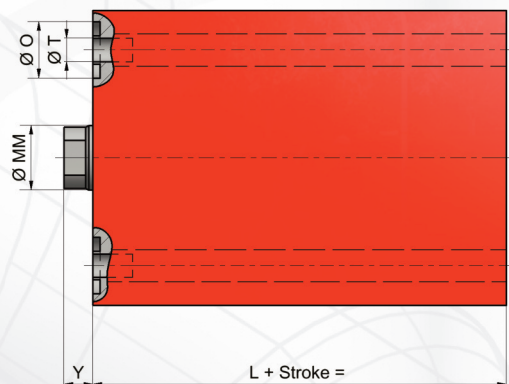


	L1	L2	L3	L4	Mounting Types	
4L	X	X	X	X		
4T	X	X	X	X		
5L	X	X	X	X		
5T	X	X	X	X		

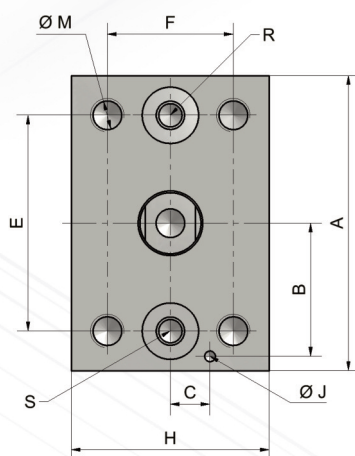
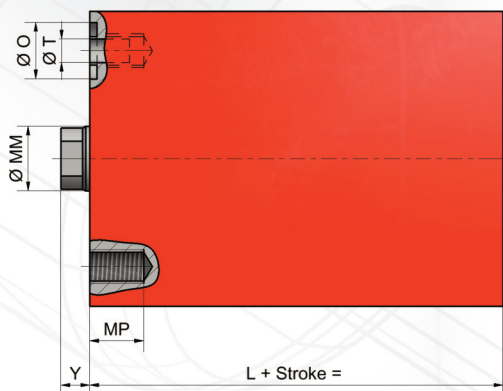


VXP SERIE

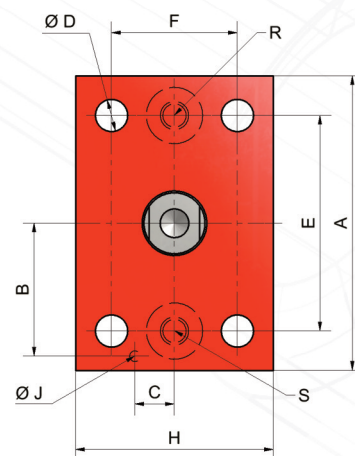
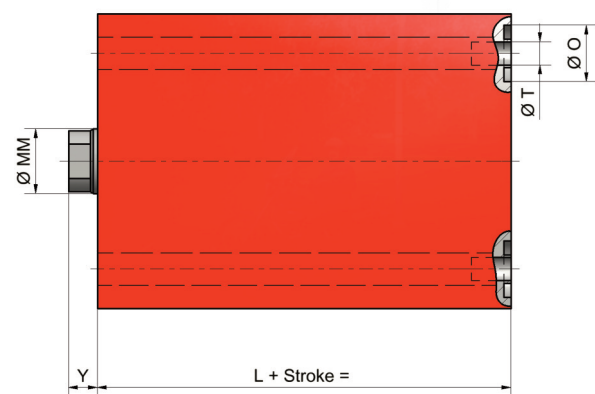
4L MOUNTING



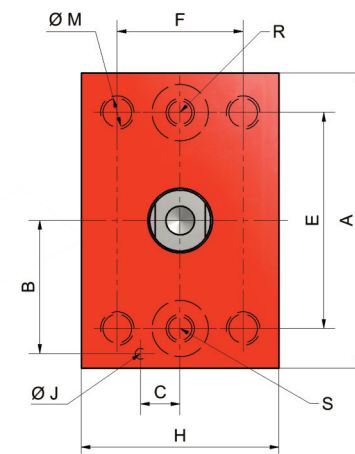
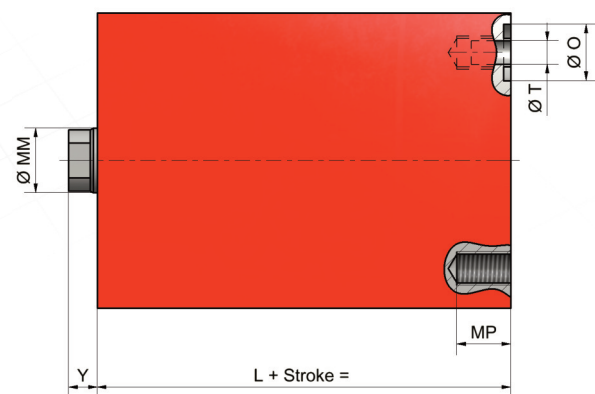
4T MOUNTING



5L MOUNTING



5T MOUNTING



S = Oil feeding for pushing movement

R = Oil feeding for pulling movement

VXP SERIE

Ø Bore	25	32	40	50	63	80	100	125	
Ø MM (Ø Rod)	16	18	22	28	36	45	56	70	
A	68	82	105	115	130	155	190	225	
B	30	37	46	50	55	67	85	90	
C	9	11	13	13	17	20	25	32	
Ø D	9	9	11	13	17	21	25	25	
E	50	60	75	85	100	120	150	180	
F	30	35	42	45	65	80	100	130	
H	45	55	65	75	95	120	150	180	
Ø J	3	3	5	6	8	10	10	12	
L+Stroke ± 1 mm	L1	66	76	85	95	108	126	140	165
	L2	95	108	120	141	151	176	-	-
	L3	82	94	102	116	130	152	-	-
	L4	79	90	103	120	129	150	-	-
Ø M	M8	M8	M10	M12	M16	M20	M24	M24	
MP	15	15	20	30	35	40	50	50	
Ø O - O-Ring Seals	R7	R9	R12	R12	R13	R14	R14	R14	
Ø T	5,5	6,5	10	10	12	14	14	14	
Y	7	8	10	10	12	14	14	15	
Stroke mini	L1	5	5	5	10	10	10	10	10
	L2	50	50	50	50	60	70	-	-
	L3	30	30	30	30	50	50	-	-
	L4	30	30	30	30	50	50	-	-

All dimensions are in mm

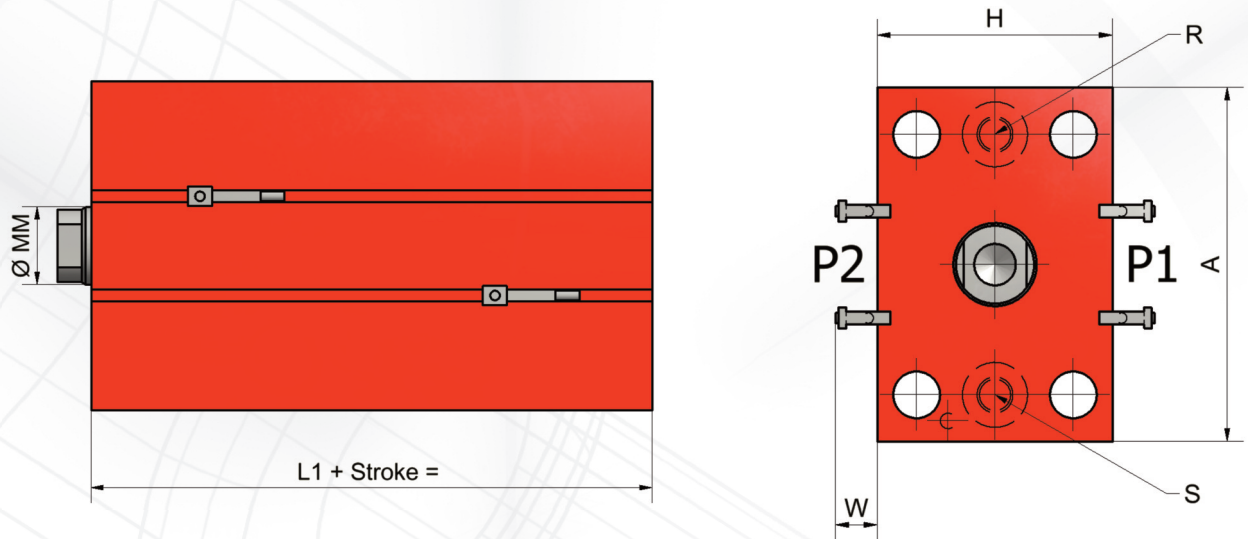


VXP SERIE

■ MAGNETIC SENSOR ONLY FOR OPTION L1

Ø32 TO 80

WORKING PRESSURE, 160 BAR MAXIMUM



S = Oil feeding for pushing movement

R = Oil feeding for pulling movement

Ø Bore	32	40	50	63	80
L	86	95	100	118	131
W	8	8	8	8	8

All dimensions are in mm

Note : For all VXP type magnetic detection cylinders, a minimum stroke of 15 mm is mandatory.
Operating Temperature - 25 + 85 °C.

WARNING !!!

- To avoid any contact errors no external magnetic field which exceeds 1Ka/m shall surround the cylinder.
- There must be no ferritic material close to the magnetic sensors.
- Covers must be provided against ferritic swarf.
- Ambient temperature must not exceed + 85° C.

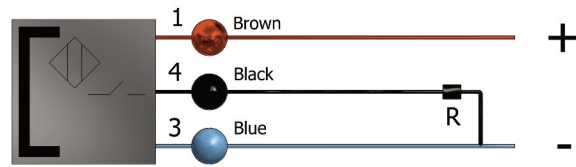




VXP SERIE

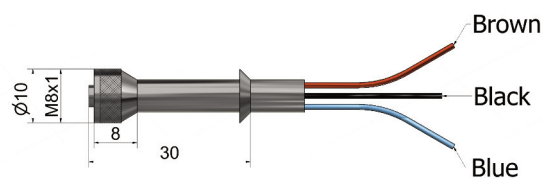
TECHNICAL CHARACTERISTICS OF MAGNETIC SENSOR

PNP
Normally-open / positive sensing



Operating voltage U_B	10...30 V DC
Voltage drop U_d	$\leq 3,1V$
Rated insulation voltage U_i	75 V DC
Eff. operating current I_e	200 mA
No-load current I_o max.	≤ 30 mA
Polarity reversal protected	Yes
Short circuit protected	Yes
Intervention protected	Yes
Rated switching field strength $I H_n I$	1,2 kA/m
Assured switching field streng	≥ 2 kA/m
Hysteresis of $I H_n I$	≤ 45 %
Temperature drift $I H_n I$	$\leq 0,3$ %/°C
Ambient temperature T_a	-25...+85 °C
Enclosure Type per IEC 60529	IP 67
Approvals/ conformity	CE, cULus
Housing material	LCP
Connection type	Cable with connector M8

Straight plug - 3 m of cable



VXP SERIE







OPTIONAL AVAILABLE ON REQUEST

	<p>Information rod only L1</p> <p>Code D</p> <table border="1"> <tr> <td>Ø Bore</td> <td>25</td> <td>32</td> <td>40</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> <td>125</td> </tr> <tr> <td>LD + 2 Stroke</td> <td>98</td> <td>109</td> <td>120</td> <td>130</td> <td>145</td> <td>165</td> <td>179</td> <td>205</td> </tr> </table>	Ø Bore	25	32	40	50	63	80	100	125	LD + 2 Stroke	98	109	120	130	145	165	179	205
Ø Bore	25	32	40	50	63	80	100	125											
LD + 2 Stroke	98	109	120	130	145	165	179	205											
	<p>Magnetic sensor</p> <p>Code DM</p>																		
	<p>Purge screws from bore Ø 40</p> <p>Code PG</p>																		
	<p>Screw countebore (DIN 912)</p> <p>Code LV</p>																		
	<p>Interior threads for handling from bore Ø 40</p> <p>Code TA</p>																		



■ HOW TO ORDER

Serie	Cylinder	VXP
Ø Bore	Indicate the diameter in mm 25, 32, 40, 50, 63, 80, 100, 125	***
Mounting	Longitudinal mounting plan	ML
Rod end	Exterior thread	1
	Interior thread	2
	Tenon	3
Seals quality	Standard seals, +80° max	N
	Viton seals, +200° max	V
	Glycol water, +90° max	G
Stroke	Indicate real stroke in mm	***
Rod	Single rod	S
	Information rod	D
Oil Feeding	Unblocked smooth holes	4
	Threaded holes	5
Mounting Holes	Through flat holes	L
	Interior threaded holes	T
Operating mode	Non cushioned	 L1
	Front and rear cushioned	 L2
	Front cushioned	 L3
	Rear cushioned	 L4

■ OPTIONAL AVAILABLE ON REQUEST

Magnetic sensor	Only L1 from Ø 32 to Ø 80 Seals quality N Working pressure 160 bar maxi	DM P1 or P2
Purges	From bore Ø 40	PG
Counterbores	Counterbores	LV
Interior threads for handling	From bore Ø 40	TA

■ EXAMPLE

										OPTIONS :	
Serie	Ø Bore	Mounting	Rod end	Seals	Stroke	Rod	Oil Feeding	Mounting Holes	Operating Mode	Magnetic Sensor	Counterbores
VXP	50	ML	1	N	45	S	4	L	L1	P2	LV

*HPS reserves the right to modify at any time and without notice the dimensions that are presented only for guidance.



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