

ROV Oval Bore Cylinder



Specifications

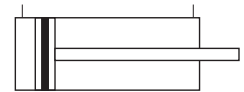
Features							
Type	Oval Bore (ISO 6432)						
Series	ROV						
Configurations	ROV 6 Double Acting, Single Rod, Magnetic Piston ROV 7 Single Acting, Single Rod, Magnetic Piston, Spring Return ROVD 6 Double Acting, Double Rod, Magnetic Piston ROVDG Double Acting, Double Rod, Magnetic Piston, Hollow Rod						
Construction Materials							
Barrel	Stainless Steel						
End Caps	Aluminum, Anodized (10µ)						
Piston Rod	Stainless Steel						
Rod Bearing	Teflon Impregnated Bronze						
Piston	Urethane						
Seals	Urethane						
Cushion Needle	Brass						
Characteristics							
Operating Temperature	Min. 14° F (-10°C) Max. +176°F (+70°C)						
Operating Pressure	Min. Double Acting - 15 PSI (1 bar), Single Acting - 30 PSI (2 bar) Max. 145 PSI (10 bar)						
Normal Operating Pressure	90 PSI (6 bar)						
Lubrication	Pre-lubricated at factory. If additional lubrication is required use oil compatible with NBR seals and designed for use in pneumatic systems.						
Media	Filtered and Regulated Compressed Air						
Installation	In any Position						
Weight	See Chart - Page 15						
Stroke Length	Varies by Bore Size						
Theoretical Forces	See Technical Information Sheet						
Load Capacity	See Technical Information Sheet						
Specifications							
Piston Diameter		8	10	12	16	20	25
Port Sizes	Metric (G)	M5	M5	M5	M5	G 1/8	G 1/8
Rod Diameter	mm	4	4	6	6	8	10
Cushion Lengths	mm	--	--	--	--	14	16

Series ROV

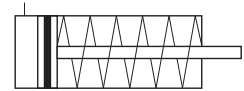
Ø8mm - 25mm

Oval Bore (ISO 6432)

ROV 6: Double Acting, Single Rod, Magnets



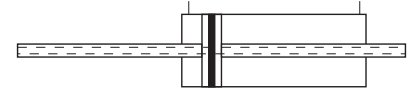
ROV 7: Single Acting, Single Rod, Magnets



ROVD 6: Double Acting, Double Rod, Magnets



ROVDG: Double Acting, Double Rod, Magnets, Hollow Rod



Features:

Stainless Steel Rod
Pre-Lubricated Design
Magnetic Piston
Adjustable Cushions
(Ø20 & 25 only)
Double Hollow Rod

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Ordering Information

Example: ROV 6020/50
Oval Piston
Single Rod
Double Acting, Magnets
20mm Bore
50mm Stroke

ROV 6020 / 50

Versions:

- ROV - Single Rod
- ROVD - Double Rod
- ROVDG - Double Hollow Rod

Actuation:

- 5 - Double Acting, Magnets, Cushions
- 6 - Double Acting, Magnets
- 7 - Single Acting, Magnets

Proximity Sensors/Brackets: See Page 73

Stroke:

- MM: (standard)
- Ø8 & 10: any mm increment up to 100mm standard
 - Ø12 & 16: any mm increment up to 300mm standard
 - Ø20 & 25: any mm increment up to 500mm standard
 - Contact factory for special stroke lengths
 - Single acting stroke lengths of 10, 25 & 50mm

Bore:

- 008 - 8mm (nom. 5/16")
- 010 - 10mm (nom. 7/16")
- 012 - 12mm (nom. 1/2")
- 016 - 16mm (nom. 3/4")
- 020 - 20mm (nom. 7/8")
- 025 - 25mm (nom. 1")

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Cylinder Mounts

Weights		8mm		10mm		Bore Ø 12mm		16mm		20mm		25mm	
		*1	*2	1	2	1	2	1	2	1	2	1	2
Basic Cylinder	lbs.	.178		.198	.088	0.33	.132	.374	.176	.847	.286	.847	.286
	kg	0.081		0.090	0.040	0.150	0.060	0.170	0.080	0.385	0.130	0.385	0.130
Type RA (1 bracket)	lbs.	.048		.048		.095		.095		0.22		0.22	
	kg	0.022		0.022		0.043		0.043		0.100		0.100	
Type RC	lbs.	.029		.029		.062		.062		0.11		0.11	
	kg	0.013		0.013		0.028		0.028		0.050		0.050	
Type RB	lbs.	.051		.051		.079		.079		.176		.176	
	kg	0.023		0.023		0.036		0.036		0.080		0.080	

*1 = Weight for cylinder with (100 mm) stroke

*2 = Weight for every additional (100 mm) stroke length

Body Mounts		8mm	10mm	Bore Ø 12mm	16mm	20mm	25mm
Foot Mount (single pc.)							
Type: RA1-	Metric	KX 9271	KX 9271	KK 26.302	KK 26.302	KK 28.302	KK 28.302
Foot Mount (Set)							
Type: RA2-	Metric	PD 31522	PD 31522	PD 25771	PD 25771	PD 25772	PD 25772
Rear Clevis							
Type: RB-	Metric	KZ 1412	KZ 1412	KZ 1419	KZ 1419	KZ 1420	KZ 1420
Front or Rear Flange							
Type: RC	Metric	KX 9272	KX 9272	KK 26.305	KK 26.305	KK 28.305	KK 28.305

Dimensional Information: See R Series Cylinder on Page 10.

Rod Accessories		8mm	10mm	Bore Ø 12mm	16mm	20mm	25mm
Rod Nut	Metric	ZP 3838	ZP 3838	ZP 1730	ZP 1730	ZP 2128	ZP 1810
Nose Nut	Metric	ZP 4077	ZP 4077	ZP 4078	ZP 4078	PD 35855	PD 35855
Rod Clevis	Metric	KZ 1413	KZ 1413	KY 6132	KY 6132	KY 6133	KY 6135
Rod Eye	Metric	KX 6023	KX 6023	KY 6144	KY 6144	KY 6145	KY 6147
Rod Alignment Coupling	Metric	KY 1152	KY 1152	KY 1126	KY 1126	KY 1127	KY 1129

Dimensional Information: See R Series Cylinder on Page 11

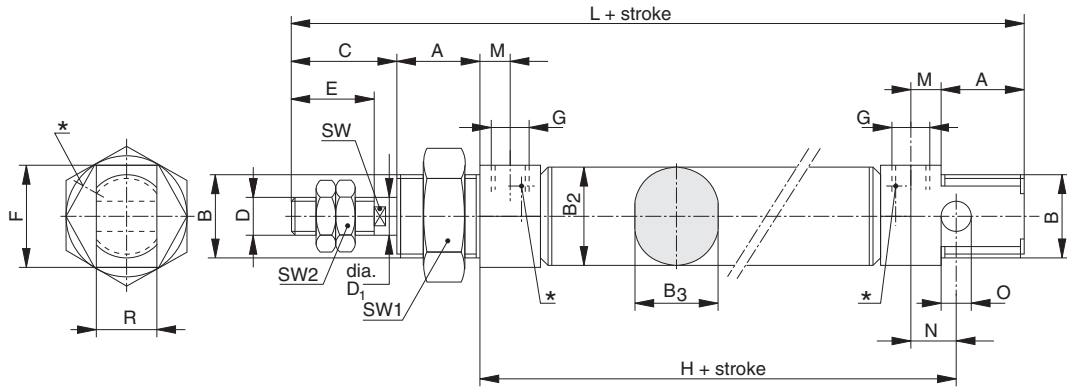
Proximity Sensors/Brackets: See Page 73

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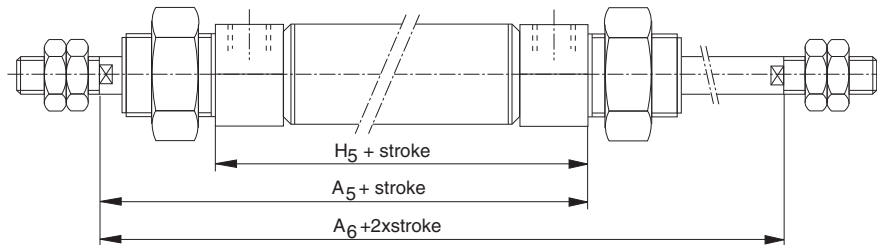
Dimensional Data

ROV Ø8-25mm



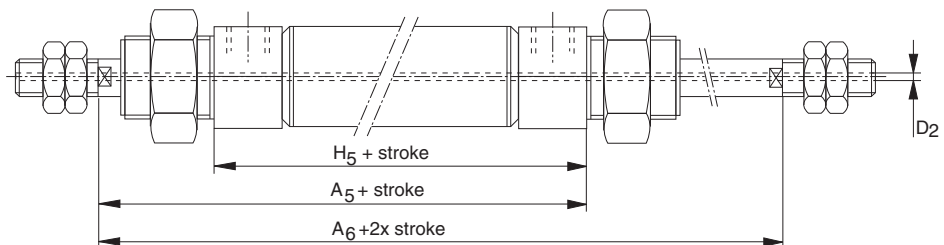
- * Port is omitted on the Spring Return version
- ** Adjustable Cushion Location. Bore 20 and 25 ONLY

ROVD Ø8-25mm



See ROV drawing for balance of dimensions

ROVDG Ø8-25mm



See ROV and ROVD drawings for balance of dimensions

ROV Oval Bore Cylinder



Dimensional Data

Bore Ø	A	A ₅ + stroke	A ₆ +2 x stroke	B	B ₂	B ₃	C	D	Ø D ₁	D ₂	E	F hex
8	0.51 13	2.40 61	3.03 77	M12 x 1.25	0.56 11.8	0.33 8.3	0.59 15	M4	0.16 4	0.04 1	0.47 12	14
10	0.51 13	2.40 61	3.03 77	7/16 • 20 M12 x 1.25	0.56 14.3	0.41 10.3	0.59 15	6 • 32 M4	0.16 4	0.04 1	0.47 12	0.55 14
12	0.67 17	2.68 68	3.54 90	M16 x 1.5	0.68 17.3	0.48 12.3	0.83 21	M6	0.24 6	0.05 1.2	0.63 16	0.79 20
16	0.67 17	2.95 75	3.82 97	5/8 • 18 M16 x 1.5	0.78 19.8	0.56 14.3	0.83 21	10 • 32 M6	0.24 6	0.05 1.2	0.63 16	0.79 20
20	0.79 20	3.58 91	4.53 115	M22 x 1.5	1.00 25.5	0.81 20.5	0.94 24	M8	0.30 8	0.13 3.2	0.79 20	1.06 27
25	0.87 22	3.94 100	5.04 128	7/8 • 14 M22 x 1.5	1.04 26.5	0.89 22.5	1.10 28	3/8 • 24 M10 x 1.25	0.39 10	0.13 3.2	0.87 22	1.06 27
Bore Ø	G	H + stroke	H ₅ + stroke	L + stroke	M	N	O _{H9}	R _{d13}	SW	SW1	SW2	
8	M5	1.89 48	1.77 45	3.39 86	0.24 6	0.24 6	0.16 4	0.30 8	--	19	7	
10	10 • 32 M5	1.89 48	1.77 45	3.39 86	0.24 6	0.24 6	0.16 4	0.3 8	--	19	7	
12	M5	2.09 53	1.81 46	4.21 102	0.24 6	0.35 9	0.24 6	0.47 12	5	23	10	
16	10 • 32 M5	2.36 60	2.09 53	4.21 107	0.24 6	0.35 9	0.24 6	0.47 12	5	23	10	
20	G1/8	2.80 71	2.64 67	5.20 132	0.30 8	0.47 12	0.31 8	0.63 16	7	32	13	
25	1/8 NPTF G1/8	2.99 76	2.83 72	5.63 143	0.31 8	0.47 12	0.31 8	0.63 16	9	32	17	