

The volume discount rate is also applicable to alteration cost. All price & lead time are to be quoted.

**RoHS**

**ORS** (Space saving, static type)  
**ORP** (Movable type)  
**ORG** (Static type)

Catalog No.	Usable temperature range*	M
ORS	-30°C ~ 80°C	Nitrile rubber (JIS Class 1 A)
ORP · ORG	-15°C ~ 150°C	Fluoric rubber (JIS Class 4 D)

\* Usable temperature range is for reference only.

**Order** **Catalog No.**  
**ORS 30**

**Delivery** **SGP Stock**

For area out of Singapore please refer to P.i.

**Quantity discount rate**

Quantity	1~29	30~199	200~299	300~500
Rate	—	5%	10%	15%

O-ring groove machining dimension (Reference value)					Catalog No.		U/Price
*d	*D	*D <sub>1</sub>	W (thickness)	do (inner diameter)	Type	No.	1~29
3	5	5.3	1.5±0.1	2.5	ORS (Space saving, static type)	3	Quotation
4	6	6.3		3.5		4	
5	7	7.3		4.5		5	
6	8	8.3		5.5		6	
7	9	9.3		6.5		7	
8	10	10.3		7.5		8	
9	11	11.3		8.5		9	
10	12	12.3		9.5		10	
12	14	14.3		11.5		12	
14	16	16.3		13.5		14	
15	17	17.3	14.5	15			
16	18	18.3	15.5	16			
18	20	20.3	17.5	18			
20	22	22.3	19.5	20			
22	24	24.3	21.5	22			
24	27	27.5	2.0±0.1	23.5	ORS (Space saving, static type)	24	Quotation
25	28	28.5		24.5		25	
26	29	29.5		25.5		26	
28	31	31.5		27.5		28	
30	33	33.5		29.5		30	
32	35	35.5		31.5		32	
34	37	37.5		33.5		34	
35	38	38.5		34.5		35	
36	39	39.5		35.5		36	
38	41	41.5		37.5		38	
39	42	42.5	38.5	39			
40	43	43.5	39.5	40			
42	45	45.5	41.5	42			
44	47	47.5	43.5	44			
46	49	49.5	45.5	46			
48	51	51	47.5	48			

O-ring groove machining dimension (Reference value)					Catalog No.		U/Price
*d	*D, D <sub>1</sub> (Common)	W (thickness)	do (inner diameter)	O-rings JIS No.	Type	No.	1~29
3	6	1.9±0.07	2.8	P 3	ORP (Movable type)	3	Quotation
4	7		3.8	P 4		4	
5	8		4.8	P 5		5	
6	9		5.8	P 6		6	
7	10		6.8	P 7		7	
8	11		7.8	P 8		8	
9	12		8.8	P 9		9	
10	13		9.8	P 10		10	
11	15		10.8	P 11		11	
12	16		11.8	P 12		12	
14	18	2.4±0.07	13.8	P 14	ORP (Movable type)	14	Quotation
15	19		14.8	P 15		15	
16	20		15.8	P 16		16	
18	22		17.8	P 18		18	

O-ring groove machining dimension (Reference value)					Catalog No.		U/Price				
*d	*D, D <sub>1</sub> (Common)	W (thickness)	do (inner diameter)	O-rings JIS No.	Type	No.	1~29				
20	24	2.4±0.07	19.8	P 20	ORP (Movable type)	20	Quotation				
21	25		+0.06	20.8		P 21		21			
22	26		0	21.8		P 22		22			
24	30		0	23.7		P 24		24			
25	31		+0.08	24.7		P 25		ORP (Movable type)	25	Quotation	
26	32			0		25.7			P 26		26
28	34			0		27.7			P 28		28
30	36			0		29.7			P 30		30
31	37			0		30.7			P 31		31
32	38			0		31.7			P 32		32
34	40	0		33.7	P 34	34					
35	41	0		34.7	P 35	35					
36	42	0		35.7	P 36	36					
38	44	0		37.7	P 38	38					
39	45	+0.10	38.7	P 39	ORG (Static type)	39	Quotation				
40	46		0	39.7		P 40		40			
42	48		0	41.7		P 42		42			
44	50		0	43.7		P 44		44			
46	52		0	45.7		P 46		46			
48	54		0	47.7		P 48		48			
25	30		3.1±0.1	24.4		G 25		ORG (Static type)	25	Quotation	
30	35			±0.3		29.4			G 30		30
35	40			±0.3		34.4			G 35		35
40	45			±0.5		39.4			G 40		40
45	50	±0.5		44.4	G 45	45					
50	55	±0.5		49.4	G 50	50					
55	60	±0.5		54.4	G 55	55					
60	65	±0.5		59.4	G 60	60					
65	70	±0.5		64.4	G 65	65					
70	75	±0.5		69.4	G 70	70					
75	80	±0.8	74.4	G 75	ORG (Static type)	75	Quotation				
80	85		0	79.4		G 80		80			
85	90		0	84.4		G 85		85			
90	95		0	89.4		G 90		90			
95	100		0	94.4		G 95		95			
100	105		0	99.4		G100		100			
105	110		0	104.4		G105		105			
110	115		0	109.4		G110		110			
115	120		0	114.4		G115		115			
120	125		0	119.4		G120		120			

\* For d, D and D<sub>1</sub> sizes, refer to the following. ORP is the equivalent of P series of JIS standard. ORG is the equivalent of G series of JIS standard.

**Example**

- For Cylinder Face Fixing
- For Flat Surface Fixing

Labels: Cylindrical cavity insert, O-ring, Base plate, IN, OUT, φD, φd, G, φD<sub>1</sub>, H, R0.1~0.2.

**O-ring Groove Dimensions**

Catalog No.	G <sup>+0.25</sup>	H	H	Rmax.	D · d Eccentricity max.
ORS 3~22	2.5	1.0	0	—	—
ORS 24~48	2.7	1.5	-0.1	—	—
ORP 3~10	2.5	1.4	±0.05	0.4	0.05
ORP 11~22	3.2	1.8	±0.05	0.4	0.05
ORP 24~48	4.7	2.7	±0.05	0.7	0.08
ORG 25~120	4.1	2.4	±0.05	0.8	0.08

Groove machining example

- H size is required for flat surface fixing.
- Use the ORP O-rings for movable applications.
- Calculate the groove depth for cylinder face fixing from  $\frac{\phi D(D_1) - \phi d}{2}$
- Notation of O-rings for movable applications and for flat surface fixing is according to the specifications of JIS B2401.
- There is difference between sizes of O-rings for movable applications and for flat surface fixing.
- O-rings for movable applications can be used for flat surface fixing as well.

