



SGR-FPM rod seals are composed of bronze-filled PTFE ring manufactured by machining technique combined with a FPM O-ring that is used as an energising ring. They are suitable for high sliding speeds due to the low friction force which is among one of the essential properties of PTFE material.

Operating conditions

Pressure	≤ 50 MPa
Temperature	-20°C to 200°C
Speed	≤ 15 m/s

Materials

Energising element ①	FPM 75 Sh A
Dynamic sealing element ②	PT55

Assembly
O-ring and PTFE-ring may easily be mounted into the grooved housings (above 12 mm)

- Advantages**
- Optimal sealing in tandem system
 - Small sections
 - High extrusion resistance and long service life
 - Low break-out and running friction
 - Compatibility with nearly all media due to the high chemical resistance of the sealing element and the wide selection of O-ring compounds

Please contact us for applications approaching maximum values.

e (mm)			
L (mm)	0 - 20 MPa	20 - 40 MPa	> 40 MPa
2,2 - 3,2	0,15	0,1	H8/f7
4,2 - 6,3	0,25	0,15	
8,1	0,4	0,2	

d (mm)			r (mm)	L (mm)	D (mm)	O-ring C/S ①
111/GR Standard serie	111/GR-L Light serie	111/GR-P Heavy serie				
3→7,9	8→18,9		0,4	2,2	d+4,9	1,78
8→18,9	19→37,9		0,6	3,2	+7,3	2,62
19→37,9	38→199,9	8→18,9	1,0	4,2	+10,7	3,53
38→199,9	200→255,9	19→37,9	1,3	6,3	+15,1	5,34
200→255,9	256→649,9	38→199,9	1,8	8,1	+20,5	7
256→649,9	650→999,9	200→255,9	1,8	8,1	+24	7
650→999,9	≥ 1000	256→649,9	2,5	9,5	+27,3	8,4
≥ 1000		650→999,9	3	13,8	+38	12

SGR-L: Light serie SGR-P: Heavy serie

FPM energising element				
d	D	L	O-ring FPM 75 Sh A	Reference
20	30,7	4,2	23,39 x 3,53	SGR-0200-FPM
22	32,7	4,2	26,57 x 3,53	SGR-0220-FPM
25	35,7	4,2	29,74 x 3,53	SGR-0250-FPM
28	38,7	4,2	32,92 x 3,53	SGR-0280-FPM
30	40,7	4,2	34,52 x 3,53	SGR-0300-FPM
32	42,7	4,2	36,09 x 3,53	SGR-0320-FPM
35	45,7	4,2	37,69 x 3,53	SGR-0350-FPM
36	46,7	4,2	40,87 x 3,53	SGR-0360-FPM
40	50,7	4,2	44,04 x 3,53	SGR-0400-FPM
40	55,1	6,3	43,82 x 5,34	SGR-0400-FPM
45	55,7	4,2	49,2 x 3,53	SGR-0450-FPM
45	60,1	6,3	50,17 x 5,34	SGR-0450-FPM
50	60,7	4,2	53,97 x 3,53	SGR-0500-FPM
50	65,1	6,3	56,52 x 5,34	SGR-0500-FPM
55	65,7	4,2	59,92 x 3,53	SGR-0550-FPM
55	70,1	6,3	59,69 x 5,34	SGR-0550-FPM
56	71,1	6,3	62,87 x 5,34	SGR-0560-FPM
60	70,7	4,2	63,09 x 3,53	SGR-0600-FPM
60	75,1	6,3	66,04 x 5,34	SGR-0600-FPM
63	78,1	6,3	69,22 x 5,34	SGR-0630-FPM
65	80,1	6,3	69,22 x 5,34	SGR-0650-FPM
70	85,1	6,3	75,57 x 5,34	SGR-0700-FPM
75	90,1	6,3	79,73 x 5,34	SGR-0750-FPM
80	95,1	6,3	85,09 x 5,34	SGR-0800-FPM
85	100,1	6,3	89,69 x 5,34	SGR-0850-FPM
90	105,1	6,3	94,62 x 5,34	SGR-0900-FPM
100	115,1	6,3	107,32 x 5,34	SGR-1000-FPM
110	125,1	6,3	116,84 x 5,34	SGR-1100-FPM
120	135,1	6,3	126,37 x 5,34	SGR-1200-FPM
125	140,1	6,3	129,54 x 5,34	SGR-1250-FPM
140	155,1	6,3	145,42 x 5,34	SGR-1400-FPM
160	175,1	6,3	164,47 x 5,34	SGR-1600-FPM

All other dimensions from series SGR, SGR-L and SGR-P are also available with FPM O-rings.