

## KPOR 30/KPOR 31

### Description

Product group	Piston seal
Design	POR PTFE seal with an o-ring energising element
Profil no.	30/31
Specification	Z suitable for two-sided pressure load (30) E suitable for one-sided pressure load (31)
Seal material	PTFE 00 9807
O-ring material	NBR 70 0100

### Operational application limits

Pressure (MPa):	≤40
Temperature (°C):	-30 to +100
Running speed (m/s):	≤15

### Media

Hydraulic oils acc. to DIN 51524 Part 1 – 3, lubricating oils, mineral oil based lubricating greases, highly non-flammable hydraulic fluids HFA, HFB, HFC acc. to VDMA 24317

### Function

The KPOR seals consist of a PTFE sealing element which is energised by an o-ring. This results in an exceptionally good sealing function under high loads and good static sealing performance. While the KPOR 30 design is a double acting piston seal, the KPOR 31 is a single-acting piston seal.

### Installation

For small diameters, axially accessible installation housing is required.  
For larger pistons, the seals can be installed in closed installation housings. Subsequent calibration is necessary. (see: Installation section on page 9 )

### Remarks

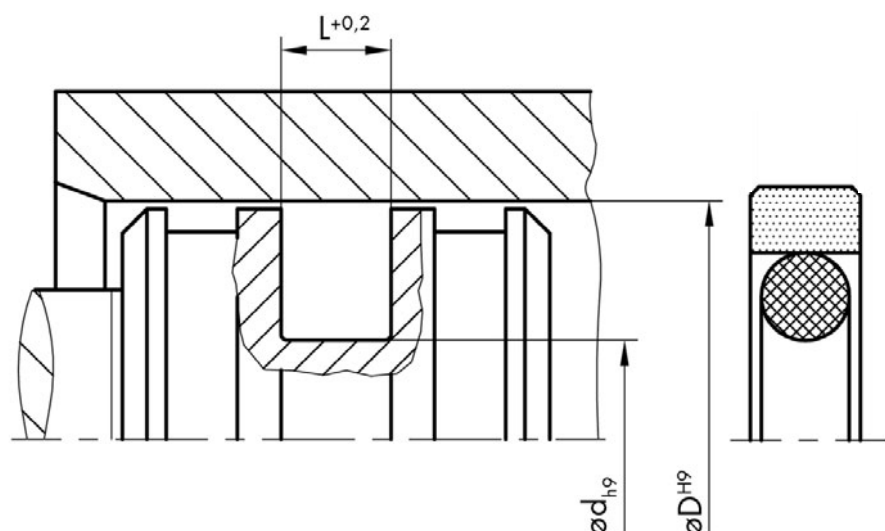
The standard for this design is a PTFE-Bronze/NBR 70 combination. Depending on the area of application, other materials such as PTFE-Glass, PTFE-Graphite and PTFE-Carbon for the seal element and EPDM, FKM, VMQ etc. for the energising element are available. Sufficient guiding of the piston using suitable guide elements is necessary.

### Order code

Please include our item numbers in your order. Should you require non-standard dimensions, materials or material combinations, please use the order code on page 12.

### Any seal. Any time.

All the items in our standard programme (marked red) are standard stock items. For all other items, please check the availability at [www.dichtomatik.de](http://www.dichtomatik.de).



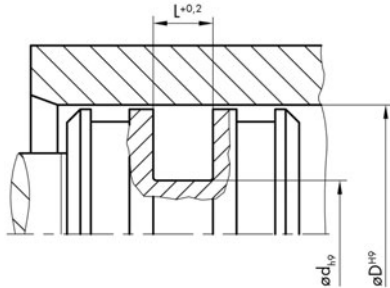
**KPOR 30/KPOR 31**

**Sizes**

Item No.	Code	D	d	L
76656	KPOR 30 Z	8	3.1	2.2
76894	KPOR 31 E	8	3.1	2.2
76657	KPOR 30 Z	10	5.1	2.2
76895	KPOR 31 E	10	5.1	2.2
108028	KPOR 30 Z	11	6.1	2.2
76658	KPOR 30 Z	12	7.1	2.2
22257	KPOR 31 E	12	7.1	2.2
151285	KPOR 31 E	12.5	7.6	2.2
77334	KPOR 30 Z	14	9.1	2.2
133720	KPOR 31 E	14	9.1	2.2
76659	KPOR 30 Z	15	7.5	3.2
76896	KPOR 31 E	15	10.1	2.2
76660	KPOR 30 Z	16	8.5	3.2
89835	KPOR 30 Z	16	11.1	2.2
151	KPOR 31 E	16	11.1	2.2
133969	KPOR 30 Z	17	12.1	2.2
76661	KPOR 30 Z	18	10.5	3.2
76897	KPOR 31 E	18	10.7	3.2
90336	KPOR 30 Z	19.05	11.55	3.2
76334	KPOR 30 Z	20	12.5	3.2
76898	KPOR 31 E	20	12.7	3.2
95504	KPOR 30 Z	20	15.1	2.2
115889	KPOR 31 E	20	15.1	2.2
76662	KPOR 30 Z	22	14.5	3.2
76899	KPOR 31 E	22	14.7	3.2
83331	KPOR 31 E	22	17.1	2.2
76663	KPOR 30 Z	24	16.5	3.2
172376	KPOR 31 E	25	14.3	4.2
75297	KPOR 30 Z	25	17.5	3.2
76900	KPOR 31 E	25	17.7	3.2
81028	KPOR 30 Z	25	20.1	2.2
75311	KPOR 31 E	25	20.1	2.2
76664	KPOR 30 Z	25.4	17.9	3.2
81938	KPOR 30 Z	27	19.5	3.2
46894	KPOR 30 Z	28	17	4.2
76902	KPOR 31 E	28	17.3	4.2
76665	KPOR 30 Z	28	20.5	3.2
84430	KPOR 31 E	28	20.7	3.2
90467	KPOR 30 Z	28	23.1	2.2
173682	KPOR 30 Z	28.5	21	3.2
108038	KPOR 30 Z	28.5	23.6	2.2
90060	KPOR 30 Z	28.58	21.08	3.2
79393	KPOR 31 E	30	19.3	3.2
76904	KPOR 31 E	30	19.3	4.2
90283	KPOR 30 Z	30	22	3.8
126	KPOR 30 Z	30	22.5	3.2
121349	KPOR 31 E	30	22.7	3.2
76905	KPOR 31 E	31.7	21	4.2
76667	KPOR 30 Z	31.7	24.2	3.2
132595	KPOR 30 Z	32	21	4.2
76906	KPOR 31 E	32	21.3	4.2
76668	KPOR 30 Z	32	24.5	3.2
80788	KPOR 31 E	32	24.7	3.2
92998	KPOR 30 Z	32	27.1	2.2
84415	KPOR 30 Z	34	26.5	3.2

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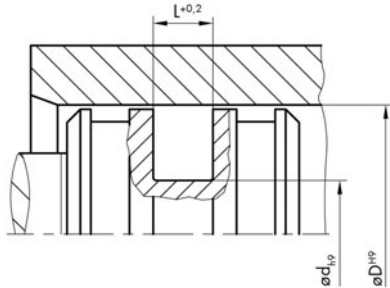
Item No.	Code	D	d	L
76637	KPOR 31 E	35	24.3	4.2
76669	KPOR 30 Z	35	27.5	3.2
76670	KPOR 30 Z	36	28.5	3.2
76671	KPOR 30 Z	38	30.5	3.2
76672	KPOR 30 Z	39	31.5	3.2
78421	KPOR 30 Z	40	26.3	5.7
76673	KPOR 30 Z	40	29	4.2
76913	KPOR 31 E	40	29.3	4.2
46549	KPOR 30 Z	40	32.5	3.2
115900	KPOR 31 E	40	32.7	3.2
76674	KPOR 30 Z	42	31	4.2
76914	KPOR 31 E	42	31.3	4.2
92811	KPOR 30 Z	44	33	4.2
173684	KPOR 30 Z	44.5	33.5	4.2
75940	KPOR 30 Z	45	34	4.2
76916	KPOR 31 E	45	34.3	4.2
75312	KPOR 31 E	45	37.5	3.2
76676	KPOR 30 Z	48	37	4.2
76917	KPOR 31 E	48	37.3	4.2
133688	KPOR 30 Z	49	38	4.2
93278	KPOR 30 Z	50	34.5	6.3
172388	KPOR 31 E	50	34.9	6.3
76628	KPOR 30 Z	50	39	4.2
76918	KPOR 31 E	50	39.3	4.2
143843	KPOR 31 E	50	42.7	3.2
76677	KPOR 30 Z	50.8	39.8	4.2
76678	KPOR 30 Z	52	41	4.2
76920	KPOR 31 E	52	41.3	4.2
85373	KPOR 30 Z	52	44.5	3.2
41757	KPOR 30 Z	54	43	4.2
93277	KPOR 30 Z	55	39.5	6.3
76679	KPOR 30 Z	55	44	4.2
76921	KPOR 31 E	55	44.3	4.2
77117	KPOR 30 Z	56	45	4.2
76680	KPOR 30 Z	57.1	46.1	4.2
135131	KPOR 30 Z	58	47	4.2
83148	KPOR 30 Z	60	44.5	6.3
76923	KPOR 31 E	60	44.9	6.3
76681	KPOR 30 Z	60	49	4.2
90021	KPOR 31 E	60	49.3	4.2
80159	KPOR 30 Z	62	51	4.2
93279	KPOR 30 Z	63	47.5	6.3
76924	KPOR 31 E	63	47.9	6.3
130599	KPOR 30 Z	63	48	7.5
76682	KPOR 30 Z	63	52	4.2
172389	KPOR 31 E	63	52.3	4.2
76683	KPOR 30 Z	63.5	52.5	4.2
107935	KPOR 30 Z	63.5	56	3.2
125899	KPOR 30 Z	64	48.5	6.3
76926	KPOR 31 E	64	48.9	6.3
76684	KPOR 30 Z	64	53	4.2
76927	KPOR 31 E	65	49.9	6.3
76685	KPOR 30 Z	65	54	4.2
130691	KPOR 31 E	65	54.3	4.2
157195	KPOR 30 Z	65	57.5	3.2

**KPOR 30/KPOR 31****Sizes**

Item No.	Code	D	d	L
173686	KPOR 30 Z	69.8	58.8	4.2
161	KPOR 30 Z	70	54.5	6.3
76929	KPOR 31 E	70	54.9	6.3
150454	KPOR 30 Z	70	57.5	5.6
75938	KPOR 30 Z	70	59	4.2
78119	KPOR 31 E	70	59.3	4.2
129795	KPOR 30 Z	72	61	4.2
76689	KPOR 30 Z	75	59.5	6.3
76930	KPOR 31 E	75	59.9	6.3
76687	KPOR 30 Z	75	64	4.2
117833	KPOR 30 Z	75	67.5	3.2
76688	KPOR 30 Z	76.2	65.2	4.2
83288	KPOR 30 Z	78	67	4.2
76690	KPOR 30 Z	80	59	8.1
172377	KPOR 31 E	80	59.5	8.1
75939	KPOR 30 Z	80	64.5	6.3
76932	KPOR 31 E	80	64.9	6.3
78213	KPOR 30 Z	80	69	4.2
80153	KPOR 30 Z	82	71	4.2
76691	KPOR 30 Z	82.5	67	6.3
76693	KPOR 30 Z	85	64	8.1
76692	KPOR 30 Z	85	69.5	6.3
76934	KPOR 31 E	85	69.9	6.3
81267	KPOR 30 Z	88	72.5	6.3
76696	KPOR 30 Z	90	69	8.1
76695	KPOR 30 Z	90	74.5	6.3
76936	KPOR 31 E	90	74.9	6.3
84206	KPOR 30 Z	90	78	6
122062	KPOR 30 Z	90	79	4.2
76698	KPOR 30 Z	95	74	8.1
76697	KPOR 30 Z	95	79.5	6.3
76937	KPOR 31 E	95	79.9	6.3
83402	KPOR 30 Z	95	84	4.2
81488	KPOR 31 E	97	81.9	6.3
76269	KPOR 30 Z	100	79	8.1
172378	KPOR 31 E	100	79.5	8.1
76699	KPOR 30 Z	100	84.5	6.3
76938	KPOR 31 E	100	84.9	6.3
115660	KPOR 30 Z	100	89	4.2
76700	KPOR 30 Z	101.6	86.1	6.3
76939	KPOR 31 E	101.6	86.5	6.3
76702	KPOR 30 Z	105	84	8.1
76701	KPOR 30 Z	105	89.5	6.3
76940	KPOR 31 E	105	89.9	6.3
76704	KPOR 30 Z	110	89	8.1
172379	KPOR 31 E	110	89	8.1
76703	KPOR 30 Z	110	94.5	6.3
76941	KPOR 31 E	110	94.9	6.3
73778	KPOR 30 Z	110	99	4.2
81645	KPOR 30 Z	112	96.5	6.3
173688	KPOR 30 Z	114.3	98.8	6.3
76707	KPOR 30 Z	115	94	8.1
76706	KPOR 30 Z	115	99.5	6.3
76943	KPOR 31 E	115	99.9	6.3

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**Sizes**



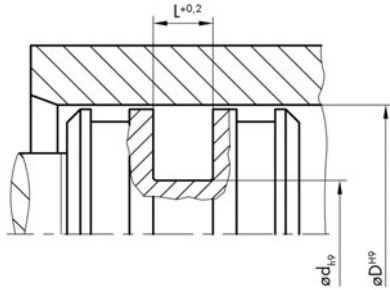
Item No.	Code	D	d	L
76709	KPOR 30 Z	120	99	8.1
76708	KPOR 30 Z	120	104.5	6.3
76944	KPOR 31 E	120	104.9	6.3
152593	KPOR 31 E	120	109	4.2
90125	KPOR 30 Z	120	109	4.2
76711	KPOR 30 Z	125	104	8.1
76710	KPOR 30 Z	125	109.5	6.3
76945	KPOR 31 E	125	109.9	6.3
173690	KPOR 30 Z	125	114	4.2
76712	KPOR 30 Z	127	111.5	6.3
76714	KPOR 30 Z	130	109	8.1
172380	KPOR 31 E	130	109	8.1
76713	KPOR 30 Z	130	114.5	6.3
76947	KPOR 31 E	130	114.9	6.3
173692	KPOR 30 Z	132	111	8.1
173694	KPOR 30 Z	133	112	8.1
76717	KPOR 30 Z	135	114	8.1
172381	KPOR 31 E	135	114	8.1
75309	KPOR 30 Z	135	119.5	6.3
76950	KPOR 31 E	135	119.9	6.3
90780	KPOR 30 Z	138	117	8.1
76090	KPOR 30 Z	140	119	8.1
75298	KPOR 30 Z	140	124.5	6.3
76951	KPOR 31 E	140	124.9	6.3
76718	KPOR 30 Z	145	124	8.1
76719	KPOR 30 Z	150	129	8.1
172382	KPOR 31 E	150	129.5	8.1
76953	KPOR 31 E	150	134.9	6.3
133952	KPOR 30 Z	150	134.9	6.3
79456	KPOR 30 Z	152.4	131.4	8.1
156892	KPOR 30 Z	153	142	4.2
76721	KPOR 30 Z	155	134	8.1
76956	KPOR 31 E	155	139.9	6.3
76629	KPOR 30 Z	160	139	8.1
172383	KPOR 31 E	160	139.5	8.1
135107	KPOR 30 Z	160	144.5	5.8
4703	KPOR 30 Z	160	144.5	6.3
76957	KPOR 31 E	160	144.9	6.3
76722	KPOR 30 Z	165	144	8.1
122030	KPOR 30 Z	165	149.5	6.3
76958	KPOR 31 E	165	149.9	6.3
76092	KPOR 30 Z	170	149	8.1
89926	KPOR 30 Z	170	154.5	6.3
76959	KPOR 31 E	170	154.9	6.3
76723	KPOR 30 Z	175	154	8.1
116509	KPOR 30 Z	175	159.5	6.3
76960	KPOR 31 E	175	159.9	6.3
76093	KPOR 30 Z	180	159	8.1
172384	KPOR 31 E	180	159	8.1
90385	KPOR 30 Z	180	164.5	6.3
75290	KPOR 31 E	180	164.9	6.3
76724	KPOR 30 Z	190	169	8.1
172385	KPOR 31 E	190	169	8.1
90749	KPOR 30 Z	190	174.5	6.3
76961	KPOR 31 E	190	174.9	6.3

**KPOR 30/KPOR 31****Sizes**

Item No.	Code	D	d	L
159736	KPOR 31 E	195	179.9	6.3
76725	KPOR 30 Z	200	179	8.1
76962	KPOR 31 E	200	179.5	8.1
173696	KPOR 30 Z	200	184.5	6.3
172386	KPOR 31 E	200	184.9	6.3
76726	KPOR 30 Z	210	189	8.1
76963	KPOR 31 E	210	189.5	8.1
83404	KPOR 30 Z	210	194.5	6.3
46626	KPOR 30 Z	215	194	8.1
133384	KPOR 30 Z	220	195.5	8.1
76727	KPOR 30 Z	220	199	8.1
76964	KPOR 31 E	220	199.5	8.1
121451	KPOR 30 Z	220	204.5	6.3
118459	KPOR 30 Z	225	204	8.1
89684	KPOR 31 E	225	204.5	8.1
81578	KPOR 30 Z	228	217.3	4.2
76728	KPOR 30 Z	230	209	8.1
76965	KPOR 31 E	230	209.5	8.1
76729	KPOR 30 Z	240	219	8.1
76966	KPOR 31 E	240	219.5	8.1
116210	KPOR 30 Z	240	224.5	6.3
81577	KPOR 30 Z	240	229.3	4.2
46194	KPOR 31 E	243	222.5	8.1
143774	KPOR 30 Z	245	224	8.1
143585	KPOR 30 Z	250	225.5	8.1
76730	KPOR 30 Z	250	229	8.1
76967	KPOR 31 E	250	229.5	8.1
150490	KPOR 30 Z	255	239.5	6.3
76968	KPOR 31 E	260	236	8.1
76731	KPOR 30 Z	260	239	8.1
127354	KPOR 31 E	265	241	8.1
76969	KPOR 31 E	270	246	8.1
76732	KPOR 30 Z	270	249	8.1
76970	KPOR 31 E	280	256	8.1
76733	KPOR 30 Z	280	259	8.1
126554	KPOR 30 Z	280	264.5	6.3
159732	KPOR 30 Z	290	265.5	8.1
76971	KPOR 31 E	290	266	8.1
76734	KPOR 30 Z	290	269	8.1
125636	KPOR 30 Z	300	275.5	8.1
76972	KPOR 31 E	300	276	8.1
76735	KPOR 30 Z	300	279	8.1
93092	KPOR 30 Z	300	284.5	6.3
129821	KPOR 30 Z	310	285.5	8.1
76973	KPOR 31 E	310	286	8.1
76736	KPOR 30 Z	310	289	8.1
118635	KPOR 30 Z	320	295.5	8.1
76974	KPOR 31 E	320	295.5	8.1
76630	KPOR 30 Z	320	299	8.1
172387	KPOR 31 E	320	299.5	8.1
152313	KPOR 30 Z	320	309	4.2
76737	KPOR 30 Z	330	305.5	8.1
76975	KPOR 31 E	330	306	8.1
76738	KPOR 30 Z	340	315.5	8.1
76976	KPOR 31 E	340	316	8.1

**KPOR 30/KPOR 31**

**Sizes**



Item No.	Code	D	d	L
127256	KPOR 30 Z	340	319	8.1
76739	KPOR 30 Z	350	325.5	8.1
76977	KPOR 31 E	350	326	8.1
153092	KPOR 31 E	355	331	8.1
76740	KPOR 30 Z	360	335.5	8.1
76978	KPOR 31 E	360	336	8.1
76741	KPOR 30 Z	370	345.5	8.1
76979	KPOR 31 E	370	346	8.1
125786	KPOR 30 Z	375	350.5	8.1
76742	KPOR 30 Z	380	355.5	8.1
76980	KPOR 31 E	380	356	8.1
132935	KPOR 31 E	384	360	8.1
76743	KPOR 30 Z	390	365.5	8.1
76981	KPOR 31 E	390	366	8.1
76744	KPOR 30 Z	400	375.5	8.1
76982	KPOR 31 E	400	376	8.1
76745	KPOR 30 Z	410	385.5	8.1
76983	KPOR 31 E	410	386	8.1
76746	KPOR 30 Z	420	395.5	8.1
76984	KPOR 31 E	420	396	8.1
132881	KPOR 30 Z	425	400.5	8.1
76747	KPOR 30 Z	430	405.5	8.1
76985	KPOR 31 E	430	406	8.1
76748	KPOR 30 Z	440	415.5	8.1
76986	KPOR 31 E	440	416	8.1
76749	KPOR 30 Z	450	425.5	8.1
76987	KPOR 31 E	450	426	8.1
76750	KPOR 30 Z	460	435.5	8.1
76989	KPOR 31 E	470	446	8.1
76752	KPOR 30 Z	480	455.5	8.1
76990	KPOR 31 E	480	456	8.1
151370	KPOR 30 Z	490	469	8.1
76754	KPOR 30 Z	500	475.5	8.1
76992	KPOR 31 E	500	476	8.1
76755	KPOR 30 Z	510	485.5	8.1
76756	KPOR 30 Z	520	495.5	8.1
74043	KPOR 30 Z	525	500.5	8.1
76757	KPOR 30 Z	530	505.5	8.1
159576	KPOR 30 Z	540	512	9.5
76758	KPOR 30 Z	540	515.5	8.1
76996	KPOR 31 E	540	516	8.1
125790	KPOR 30 Z	545	520.5	8.1
76759	KPOR 30 Z	550	525.5	8.1
76997	KPOR 31 E	550	526	8.1
76760	KPOR 30 Z	560	535.5	8.1
76999	KPOR 31 E	570	546	8.1
76762	KPOR 30 Z	580	555.5	8.1
76763	KPOR 30 Z	590	565.5	8.1
76770	KPOR 30 Z	600	575.5	8.1
77002	KPOR 31 E	600	576	8.1
66277	KPOR 30 Z	600	579	8.1
76771	KPOR 30 Z	610	585.5	8.1
77003	KPOR 31 E	610	586	8.1
76772	KPOR 30 Z	620	595.5	8.1
76773	KPOR 30 Z	630	605.5	8.1

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**KPOR 30/KPOR 31****Sizes**

Item No.	Code	D	d	L
77005	KPOR 31 E	630	606	8.1
76774	KPOR 30 Z	640	615.5	8.1
76775	KPOR 30 Z	650	625.5	8.1
76776	KPOR 30 Z	660	635.5	8.1
159340	KPOR 30 Z	680	652	9.5
133501	KPOR 30 Z	700	672	9.5
115171	KPOR 30 Z	710	682	9.5
117148	KPOR 30 Z	720	685	17.5
120527	KPOR 30 Z	740	712	9.5
155676	KPOR 30 Z	760	732	9.5
124827	KPOR 30 Z	770	742	9.5
126710	KPOR 30 Z	800	772	9.5
152494	KPOR 30 Z	850	822	9.5
134322	KPOR 30 Z	860	832	9.5
160138	KPOR 30 Z	920	892	9.5
162387	KPOR 30 Z	1250	1212	13.8