



Max. Operating Conditions	
Pressure (MPa)	≤ 35 (350 bar)
Temperature (°C)	- 30 / + 110
Speed (m/s)	$\leq 0,8$
Media:	Hydraulic fluids upon oil-basis, hardly inflaming hydraulic fluids, HFA-, HFB-Liquids

Recommended Surface Finish		
Surface roughness	R_a	R_t
Groove bottom	$\leq 1,6 \mu\text{m}$	$\leq 16 \mu\text{m}$
Groove flanks	$\leq 1,6 \mu\text{m}$	$\leq 16 \mu\text{m}$
Running surface	$\leq 0,3 \mu\text{m}$	$\leq 3 \mu\text{m}$

Material	
NBR-Fabric	N

Technical Description

The double-acting piston seal **KD4** consists of a NBR fabric sealing element reinforced on the dynamic side, and two angular guide rings made of polyacetal and reaching down to the groove bottom.

The design and structural shape of the double-acting piston seal allows for the use in medium and heavy hydraulic operating conditions.

Due to the reinforced fabric on the running surface and the "lubricant pockets" therefore existing, the frictional behaviour and the stick-slip phenomena are reduced.

Secure sealing is also given upon operation by shocks, axially and radially occurring oscillations.

Type designation	∅ D	∅ d	L	∅ d ₁	∅ d ₂	H
KD4 - 30 - 22 **	30	22	13,5	26,0	29,4	3,20
KD4 - 32 - 24 **	32	24	15,5	28,0	31,4	3,20
KD4 - 35 - 27 **	35	27	15,5	31,0	34,4	3,20
KD4 - 40 - 32 **	40	32	15,5	36,0	39,4	3,20
KD4 - 45 - 37 **	45	37	15,5	41,0	44,4	3,20
KD4 - 50 - 38	50	38	20,5	46,0	49,4	4,20
KD4 - 55 - 43	55	43	20,5	51,0	54,9	4,20
KD4 - 60 - 48	60	48	20,5	56,0	59,4	4,20
KD4 - 63 - 51	63	51	20,5	59,0	62,4	4,20
KD4 - 65 - 53	65	53	20,5	61,0	64,9	4,20
KD4 - 70 - 58	70	58	20,5	66,0	69,4	4,20
KD4 - 75 - 63	75	63	20,5	71,0	74,4	4,20
KD4 - 80 - 66	80	66	22,5	76,0	79,4	5,20
KD4 - 85 - 71	85	71	22,5	81,0	84,4	5,20
KD4 - 90 - 76	90	76	22,5	86,0	89,4	5,20
KD4 - 100 - 86	100	86	22,5	96,0	99,4	5,20
KD4 - 110 - 96	110	96	22,5	106,0	109,4	5,20
KD4 - 120 - 106	120	106	22,5	116,0	119,4	5,20
KD4 - 125 - 108	125	108	26,5	121,0	124,4	7,20
KD4 - 140 - 123	140	123	26,5	136,0	139,4	7,20
KD4 - 160 - 143	160	143	26,5	156,0	159,4	7,20
KD4 - 180 - 163	180	163	26,5	176,0	179,4	7,20
KD4 - 200 - 180	200	180	31,5	196,0	199,4	9,20
KD4 - 220 - 200	220	200	31,5	216,0	219,4	9,20
KD4 - 250 - 230	250	230	31,5	246,0	249,4	9,20

Further dimension and in-between sizes upon request.

** These sizes are available upon request only.

	Piston seal Type	Dimension	Material
Ordering example:	Piston seal	∅ D 60 x 48 x 20,5	NBR-Fabric
Order designation:	KD4 -	60 x 48 x 20,5	- N

Designation of material: **N - NBR-Fabric**