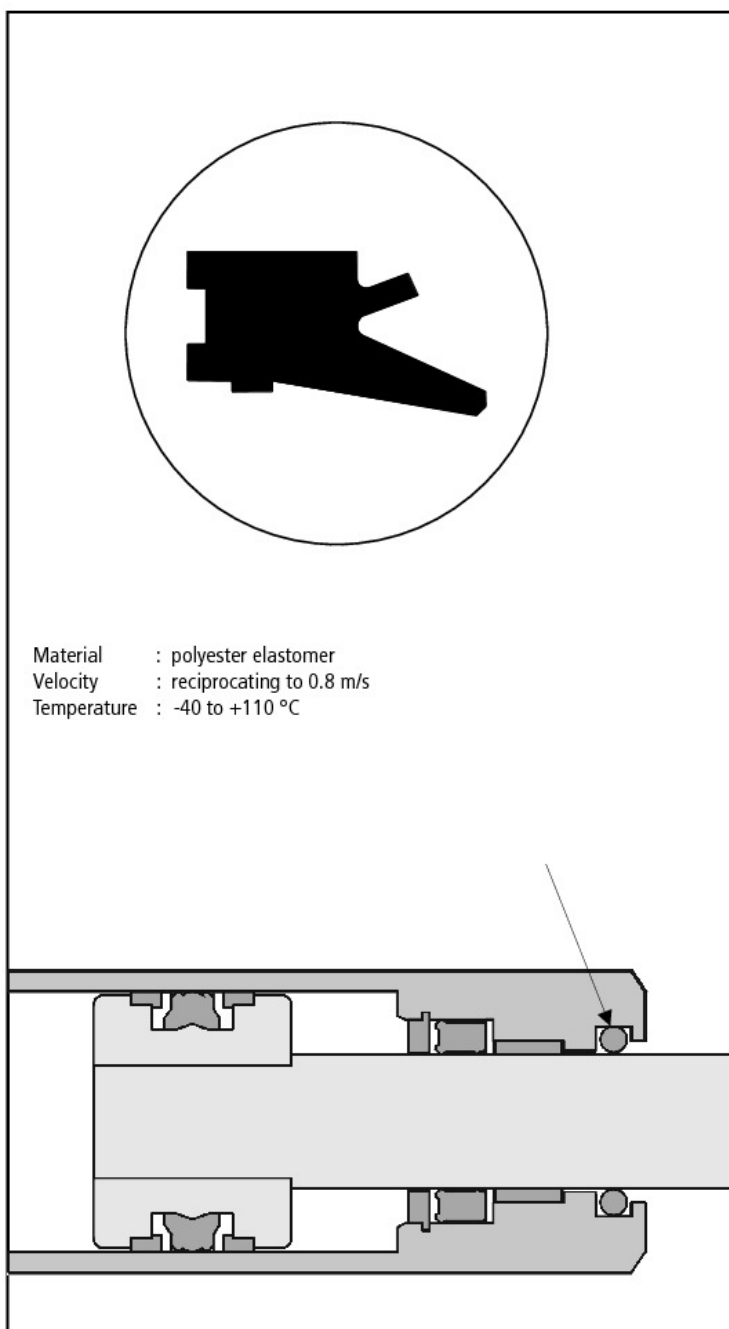


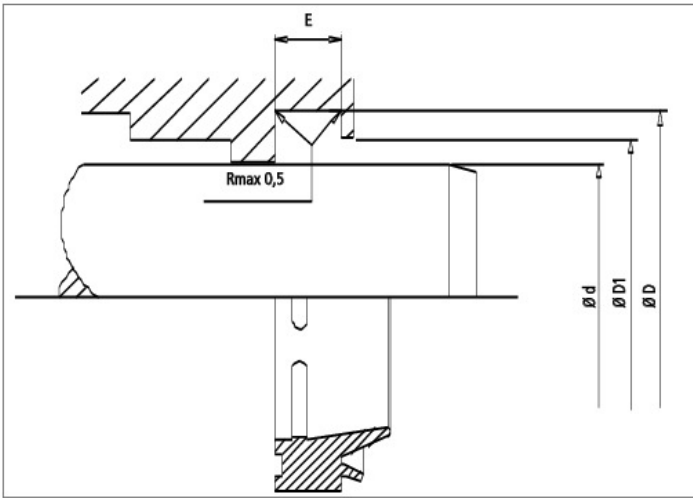


Single acting wiper HA 328 reliably prevents entry of dirt and water in hydraulic cylinder and can be used in hydraulics as well as in pneumatics.

### Special Features:

- Very good wiper action
- Anti-wear polyurethane material
- Long life
- Special form closing on housing due to step on external diameter
- Easy snap assembly in groove
- Sealing edge on external diameter prevents entry of dirt over groove base.





Limitations on Use	
Velocity	: reciprocating to 0.8 m/s
Temperature	: -40 bis +110 °C

Media for Use	
Mineral oil based hydraulic oils, Bio Oils and flame resistant pressure fluids on request.	

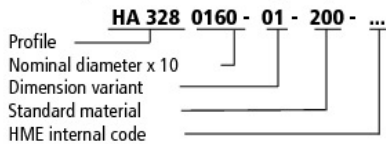
Surface Finish			
	Rmax	Rz	Ra
Faces	2,5 µm	1,6 µm	0,4 µm
Diameter/groove root	16,0 µm	10,0 µm	3,2 µm
Groove flanks	16,0 µm	10,0 µm	3,2 µm

d f8/h9	D H11	E +0,2	D1 H11	Part N°.
16,00	24,00	5,00	21,50	HA328 0160-01-200
18,00	26,00	5,00	23,50	HA328 0180-01-200
20,00	28,00	5,00	25,50	HA328 0200-01-200
22,00	30,00	5,00	27,50	HA328 0220-01-200
25,00	33,00	5,00	30,50	HA328 0250-01-200
28,00	36,00	5,00	33,50	HA328 0280-01-200
30,00	38,00	5,00	35,50	HA328 0300-02-200
32,00	40,00	5,00	37,50	HA328 0320-01-200
35,00	43,00	5,00	40,50	HA328 0350-01-200
35,00	43,00	4,00	40,50	HA328 0350-02-200
36,00	44,00	5,00	41,50	HA328 0360-01-200
40,00	48,00	5,00	45,50	HA328 0400-01-200
45,00	53,00	4,00	50,50	HA328 0450-01-200
45,00	53,00	5,00	50,50	HA328 0450-02-200
50,00	58,00	5,00	55,50	HA328 0500-01-200
55,00	63,00	4,00	60,50	HA328 0550-01-200
56,00	64,00	4,00	61,50	HA328 0560-01-200
56,00	66,00	6,30	63,00	HA328 0560-02-200
60,00	68,00	4,00	65,50	HA328 0600-01-200
60,00	70,00	6,30	67,00	HA328 0600-02-200
63,00	73,00	6,30	70,00	HA328 0630-01-200
65,00	73,00	4,00	70,50	HA328 0650-01-200
70,00	80,00	6,30	77,00	HA328 0700-01-200
80,00	90,00	6,30	87,00	HA328 0800-01-200
85,00	95,00	6,30	92,00	HA328 0850-01-200
90,00	100,00	6,30	97,00	HA328 0900-01-200
100,00	115,00	9,50	110,00	HA328 1000-01-200
110,00	125,00	9,50	120,00	HA328 1100-01-200
125,00	140,00	9,50	135,00	HA328 1250-01-200
140,00	150,00	4,00	147,00	HA328 1400-01-200
140,00	155,00	9,50	150,00	HA328 1400-02-200
160,00	175,00	9,50	170,00	HA328 1600-01-200
180,00	195,00	9,50	190,00	HA328 1800-01-200
200,00	215,00	9,50	210,00	HA328 2000-01-200

Sizes also available in FPM. Extensive range of inch measurement diagrams available on request.  
Bold figures correspond to rod diameters as per ISO 3320.



### Example for ordering Wipers:



Issue

01	05
----	----

**WARNING:** Limits of application stated herein are standard values. They could be individually transgressed with due consideration to respective service conditions. In the event of a large duty cycle, pulsating operation and other complex operational conditions, simultaneous transgression of these values is not recommended. Due to a large variety of service conditions that may arise in course of actual use, the company does not take responsibility of or guarantee the functional accuracy of the individual components. Rights for changes are reserved.