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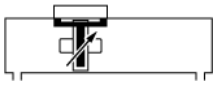
# Rodless magnetic cylinder with accessories Series RLF



| | |
|---|---|
| Design type | Rodless magnetic cylinder |
| Heads | Hard anodized aluminium |
| Slide | Hard anodized aluminium |
| Cylinder tube | Aluminium profile hard anodized |
| Sealing tapes | Stainless steel |
| Seals | Piston speed < 1m/s NBR, Piston speed ≥ 1m/s FKM |
| End-position cushioning | pneumatic, adjustable |
| Ambient temperature | -10...+80°C |
| Medium temperature | 0...+40°C |
| Lubrication | not necessary |
| Medium | filtered compressed air |
| Operating pressure | 0,5...8bar |
| Special version | all screws in stainless steel, ATEX II 2G EX h IIB T4 Gb -10°C< Ta < +80°C and II 2D EX h IIIC T 130°C Db |
| Note | CAD files are available in the STASTO Store at www.stasto.eu<br>Solenoid switch see separate data sheet |

## Type code

| RLF- | 16 - | 100 - | V |
|---|---|---|---|
| | 16 ø16 | Stroke [mm] | **O**Standard |
| | 25 ø25 | ø16: 100...3300 mm | V FKM-Seals |
| | 32 ø32 | ø25...ø63: 100...5700 mm | X Stainless steel screws |
| | 40 ø40 | | VX Viton seals, Stainless steel screws |
| | 50 ø50 | | |
| | 63 ø63 | | |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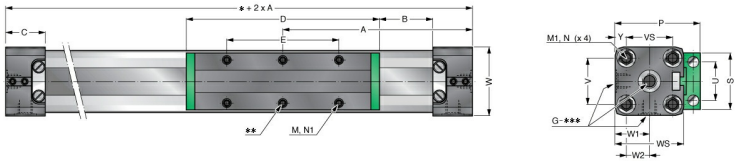
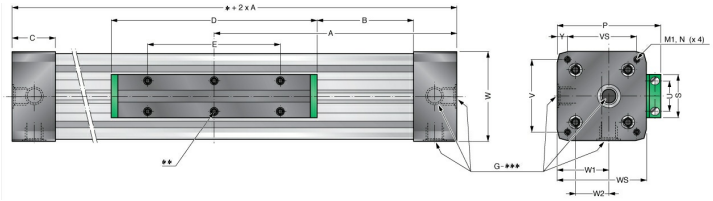
## Dimensions

RLF-Ø16...32:



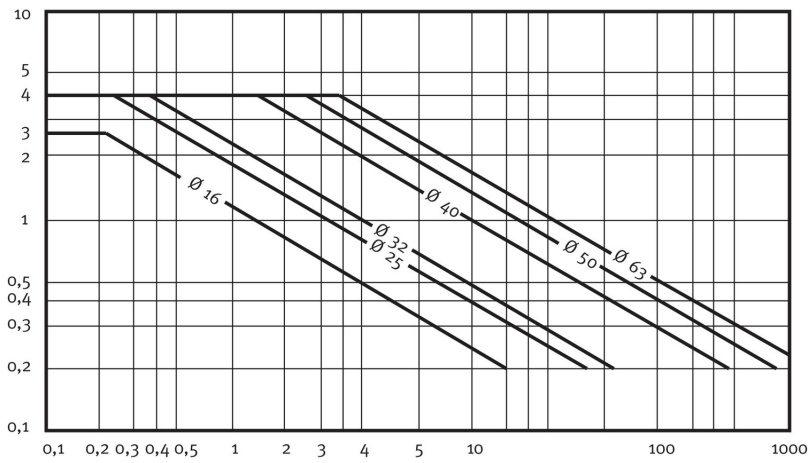

RLF-Ø40...63:




* = Stroke
** = only for model RLF-Ø32/40
*** = 3xPressure inlet

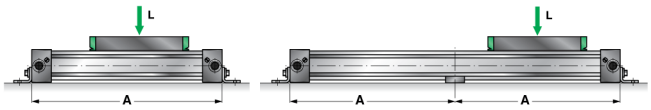
| Ø | A | B | C | D | E | G | M | M1 | N | N1 | P | S | U | V | VS | W | WS | W1 | W2 | Y | Cushioning length | Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 65 | 15,5 | 15 | 69 | 36 | M5 | M4 | M3 | 7 | 7 | 36,5 | 22 | 16,5 | 18 | 18 | 27 | 27 | 13,5 | 17,1 | 4,5 | 15 | RLF-16-.... .. |
| 25 | 100 | 21 | 23 | 111 | 65 | G1/8 | M5 | M5 | 12 | 10 | 52,5 | 33 | 25 | 27 | 27 | 40 | 40 | 20 | 25,8 | 6,5 | 21 | RLF-25-.... .. |
| 32 | 125 | 22 | 27 | 152 | 90 | G1/4 | M6 | M6 | 14 | 7 | 66,5 | 36 | 27 | 36 | 40 | 52 | 56 | 30 | 39 | 8 | 26 | RLF-32-.... .. |
| 40 | 150 | 44 | 30 | 152 | 90 | G1/4 | M6 | M6 | 17 | 10 | 80 | 36,4 | 27 | 54 | 54 | 72 | 69 | 36 | 48,8 | 9 | 32 | RLF-40-.... .. |
| 50 | 175 | 42 | 33 | 200 | 110 | G1/4 | M6 | M6 | 18 | 16 | 89 | 56 | 27 | 70 | 70 | 80 | 80 | 44,5 | 44,5 | 5 | 32 | RLF-50-.... .. |
| 63 | 215 | 47,5 | 50 | 235 | 155 | G3/8 | M8 | M8 | 18 | 15 | 123 | 50 | 36 | 78 | 78 | 106 | 106 | 62,5 | 48,8 | 14,5 | 40 | RLF-63-.... .. |

## Damping diagram

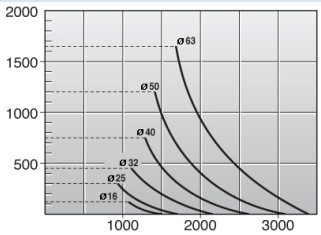



Vertical axis: Piston speed m/s
Horizontal axis: Mass kg

## Transverse force



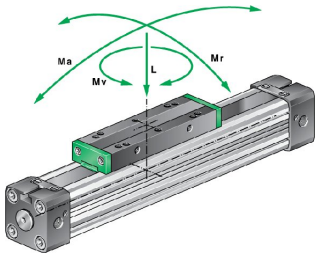

Length A must not be exceeded




Vertical axis: L (Load in newtons)
Horizontal axis: A (maximum distance in mm)

## Forces and torques

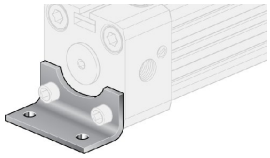
The specified values are maximum values assuming low shock loads and a speed of 0.45m/s. Maximum pressure 6bar. An increase of the values in dynamic operation, even if only briefly, must be avoided. Attention: Resulting forces can lead to a significant increase in the values. In the event of an undefinable situation, the specified maximum values must be reduced by 20%.

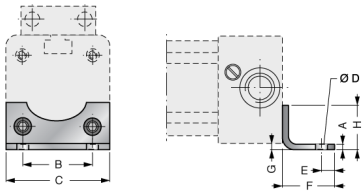



| Ø | Longitudinal force [N] at 6bar | Maximum load L [N] | Ma axial [Nm] | Mr radial [Nm] | Mv central [Nm] |
|---|---|---|---|---|---|
| 16 | 110 | 120 | 4 | 0,3 | 0,5 |
| 25 | 250 | 300 | 15 | 1 | 3 |
| 32 | 420 | 450 | 30 | 2 | 4,5 |
| 40 | 640 | 750 | 60 | 4 | 8 |
| 50 | 1000 | 1200 | 115 | 7 | 15 |
| 63 | 1550 | 1650 | 200 | 8 | 24 |
| | | | | | |

# Accessories

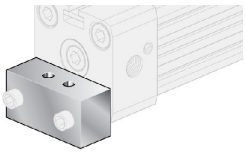
## RLP - .. Foot mounting

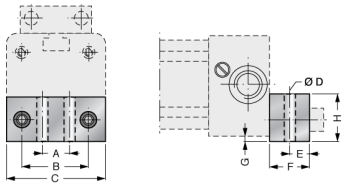





| Ø | A | B | C | ØD | E | F | G | H | Type |
|---|---|---|---|---|---|---|---|---|---|
| 16 | 1,5 | 18 | 26 | 3,6 | 4 | 14 | 1,5 | 12,5 | RLP-16 |
| 25 | 2,5 | 27 | 40 | 5,5 | 6 | 22 | 2 | 18 | RLP-25 |

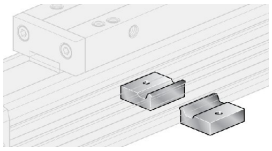
## RLQ - .. Foot mounting

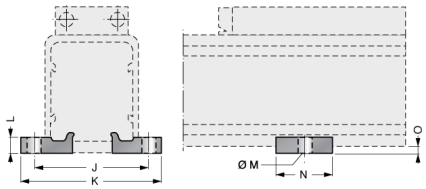





| Ø | A | B | C | ØD | E | F | G | H | Type |
|---|---|---|---|---|---|---|---|---|---|
| 32 | 20 | 36 | 51 | 6,5 | 8 | 24 | 4 | 20 | RLQ-32 |
| 40 | 30 | 54 | 71 | 9 | 11,5 | 24 | 2 | 20 | RLQ-40 |
| 50 | 45 | 70 | 80 | 9 | 12,5 | 25 | 1 | 25 | RLQ-50 |
| 63 | 48 | 78 | 105 | 11 | 15 | 30 | 2 | 40 | RLQ-63 |

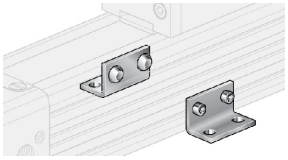
## RLMI - ..  Bearing blocks

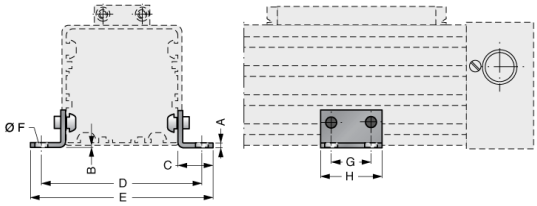





| Ø | J | K | L | ØM | N | O | Type |
|---|---|---|---|---|---|---|---|
| 16 | 41,5 | 53,5 | 5 | 5,5 | 20 | 3 | RLMI-16 |
| 25 | 48,5 | 60 | 6 | 5,5 | 20 | 4 | RLMI-25 |

## RLML - ..  Bearing blocks






| Ø | A | B | C | D | E | ØF | G | H | Type |
|---|---|---|---|---|---|---|---|---|---|
| 32 | 5 | 6 | 20 | 82 | 91 | 4,5 | 30 | 45 | RLML-32 |
| 40 | 5 | 8,5 | 20 | 90 | 99 | 4,5 | 30 | 45 | RLML-40 |
| 50 | 5 | 1 | 35 | 123 | 148 | 6,5 | 30 | 45 | RLML-50 |
| 63 | 5 | 3,5 | 35 | 147 | 172 | 6,5 | 30 | 45 | RLML-63 |

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