

Linear modules LM

LM 12 - LM 32

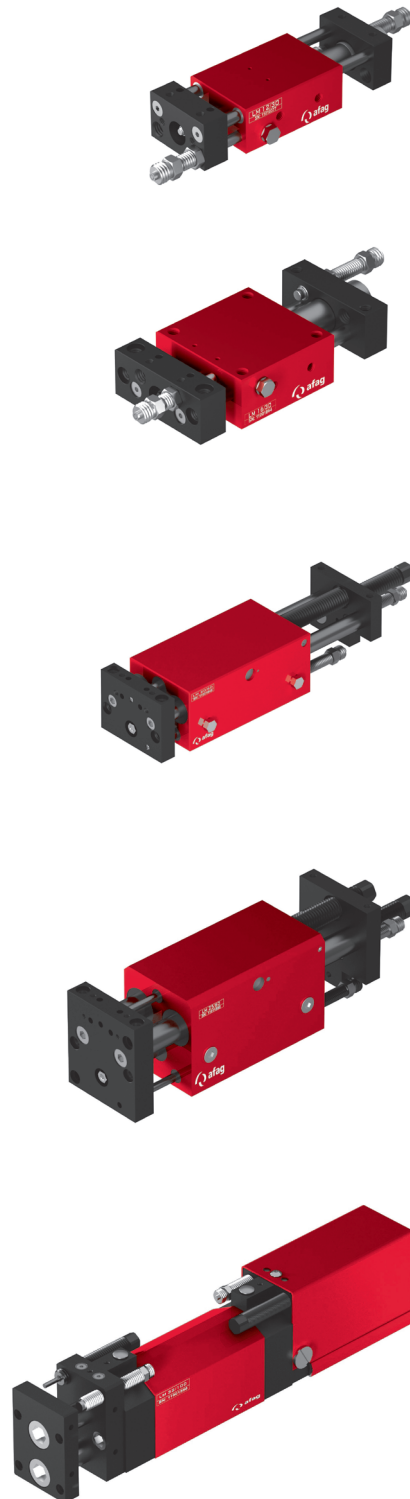
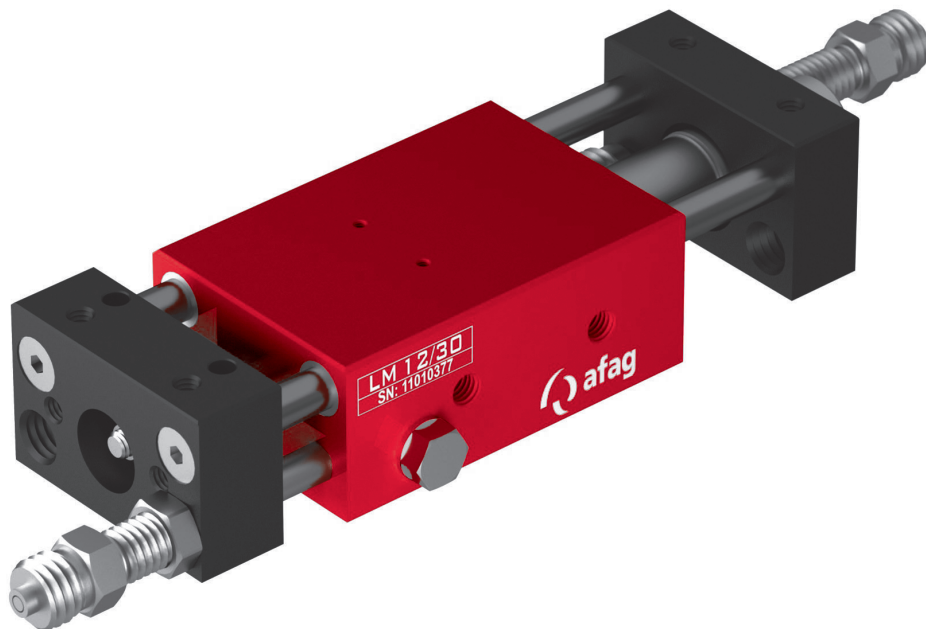


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Linear modules LM

LM 12

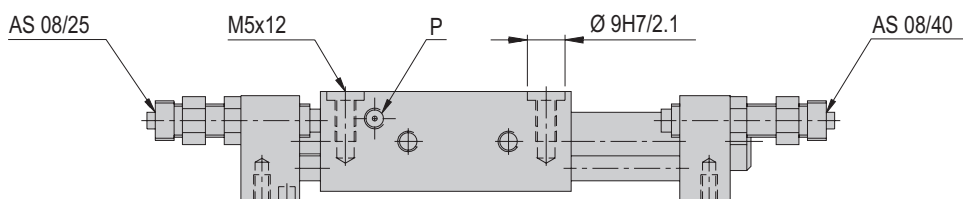
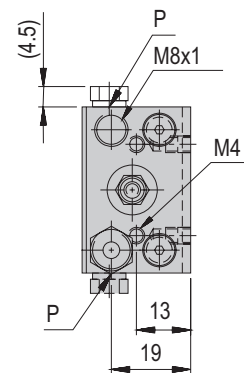
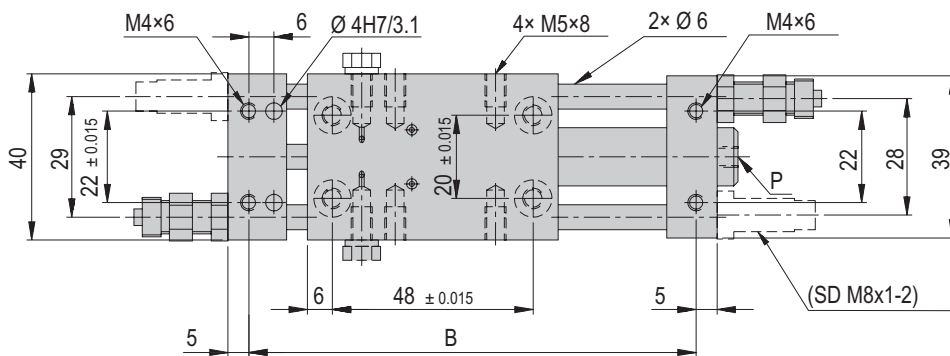
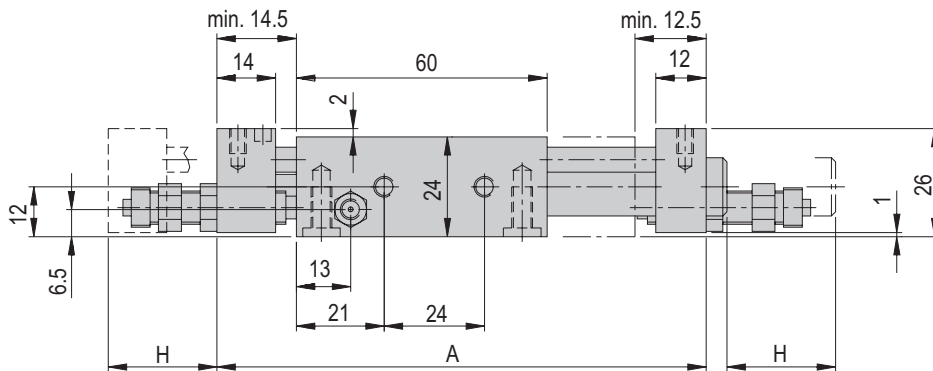


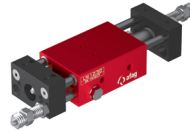
- Super robust
- Optional intermediate stops
- Tried, tested and frequently copied

Dimensions and dimension drawings

LM 12

| Type | LM 12/30 | LM 12/60 | LM 12/90 |
|------|----------|----------|----------|
| A | 117 mm | 147 mm | 177 mm |
| B | 107 mm | 137 mm | 167 mm |
| H | 30 mm | 60 mm | 90 mm |
| P | M5 | M5 | M5 |





| LM 12 | |
|--------------------------------|-------------|
| Attachment grid | 20 x 48 mm |
| Attachment thread | M5 |
| Operating pressure | 6 +/- 2 bar |
| Air connection P | M5 |
| Cylinder Ø | 12 mm |
| Retract piston force | 51 N |
| Extend piston force | 68 N |
| Operating temperature | 0 - 50 °C |
| Storage temperature | 0 - 50 °C |
| Humidity | < 90 % |
| Medium filtered compressed air | 10 - 40 µm |

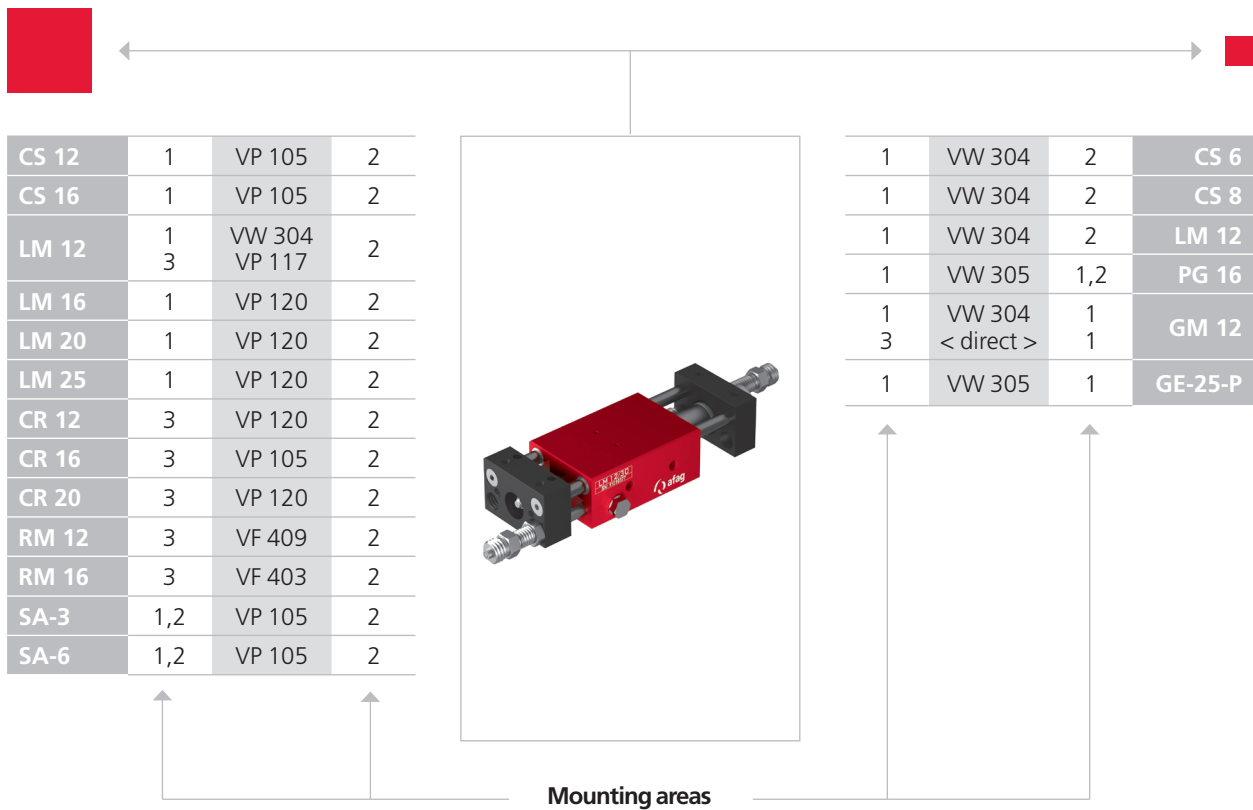
| Type | LM 12/30 | LM 12/60 | LM 12/90 |
|-----------------------|-----------------|-----------------|-----------------|
| Order number | 11010377 | 11010378 | 11010379 |
| Stroke H | 30 mm | 60 mm | 90 mm |
| Stroke limitation | *20 mm | *20 mm | *20 mm |
| Net weight | 0.31 kg | 0.34 kg | 0.37 kg |
| Moving weight | 0.13 kg | 0.16 kg | 0.19 kg |
| Air consumption/cycle | 0.019 NL | 0.038 NL | 0.057 NL |
| Noise level | 60 dB (A) | 60 dB (A) | 60 dB (A) |
| Repeat accuracy | +/- 0.02 mm | +/- 0.02 mm | +/- 0.02 mm |
| Mounting position | ✦ | ✦ | ✦ |

The technical data refer to a nominal pressure of 6 bar under Afag standard test conditions.
 The module can be operated with lubricated or dry air.
 Cleanroom class ISO 14644-1, class ISO 7
 *Optional 2 x 20 mm

- Included in the delivery**
 (Catalogue HT accessories)
- 2x Centering bushing Ø9x4
 - 1x Stop screw AS 08/25
 - 1x Stop screw AS 08/40

- Accessories**
- Base plate LM 12 [p. 105]
 - Stop L-bar LM 12/LM 16 [p. 105]
- (Catalogue HT accessories)
- Adjusting stop pin M8x1/40
 - Adjusting stop pin M8x1/25
 - Stop screw AS 08/80
 - Shock absorber SD M8x1 -2
 - INI d6.5x44-Sn1.5-PNP-NO-M8x1

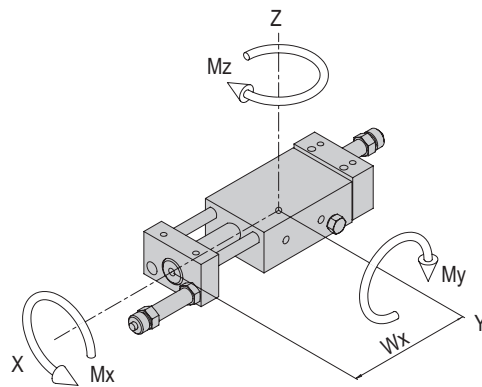
- Alternative accessories**
 (Catalogue HT accessories)
- INI d6.5x35-Sn1.5-PNP-NO-M8x1



| CS, ES | LM | HM | SA | UG, GM, SG, DG, PG, GE, SGE |
|------------|----------|----------|--------|-----------------------------|
| | | | | |
| PMP, PMP-c | PEZ, PDZ | PEL, PDL | RM, RE | CR, RM 32, RE, SREH, RA |
| | | | | |

Note that there might be different mounting positions from one module to another one.
The required connection elements and the range of support columns are depicted in the catalogue HT accessories.

| Type | LM 12/30 | LM 12/60 | LM 12/90 |
|---------------------------|----------|----------|----------|
| Max. static torque M_x | 5.6 Nm | 5.6 Nm | 5.6 Nm |
| Max. static torque M_y | 9.6 Nm | 9.6 Nm | 9.6 Nm |
| Max. static torque M_z | 9.6 Nm | 9.6 Nm | 9.6 Nm |
| Max. dynamic torque M_x | 2.5 Nm | 2.5 Nm | 2.5 Nm |
| Max. dynamic torque M_y | 4.3 Nm | 4.3 Nm | 4.3 Nm |
| Max. dynamic torque M_z | 4.3 Nm | 4.3 Nm | 4.3 Nm |
| Effective distance W_x | 68 mm | 68 mm | 68 mm |



| Maximum payload/type | LM 12/30 | LM 12/60 | LM 12/90 |
|--|----------|----------|----------|
| Installation position (horizontal) for mounting side 1 | 0.5 kg | 0.5 kg | 0.5 kg |
| Installation position (horizontal) for mounting side 3 | 0.5 kg | 0.5 kg | 0.5 kg |
| Installation position (vertical) for mounting side 1 | 0.5 kg | 0.5 kg | 0.5 kg |
| Installation position (vertical) for mounting side 3 | 0.5 kg | 0.5 kg | 0.5 kg |

Assembly sides
module mounting

horizontal:

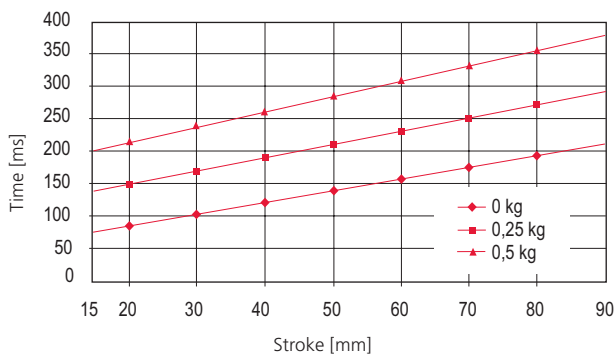


vertical:

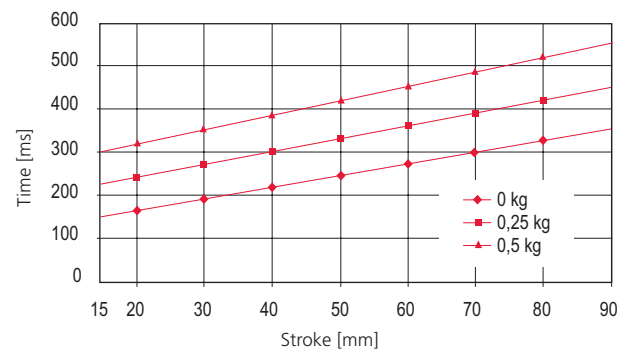


Operation time diagrams

Stroke time LM 12 with shock absorber

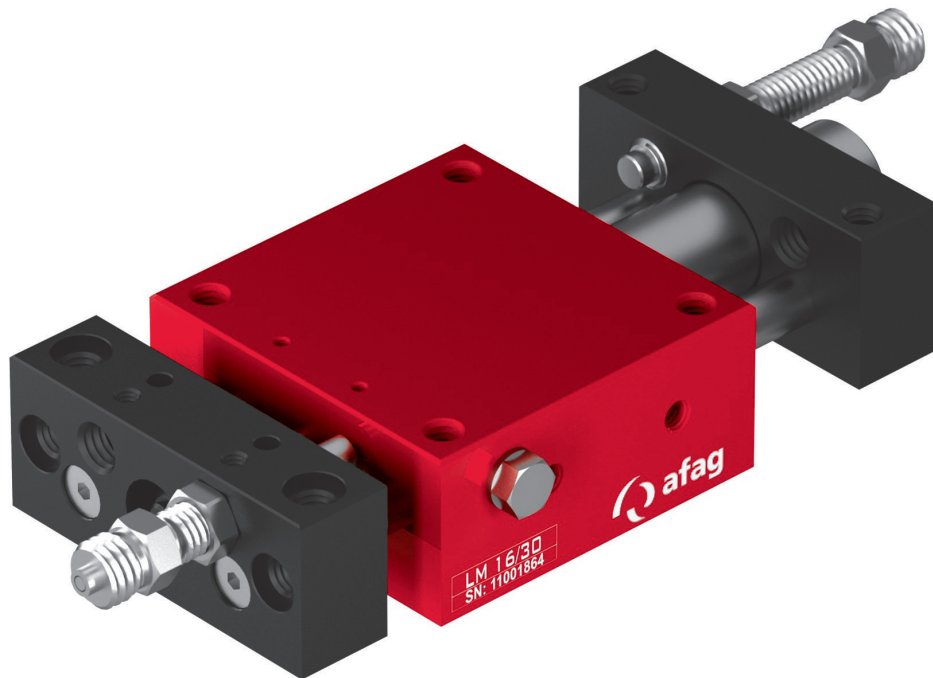


Stroke time LM 12 without shock absorber



Linear modules LM

LM 16

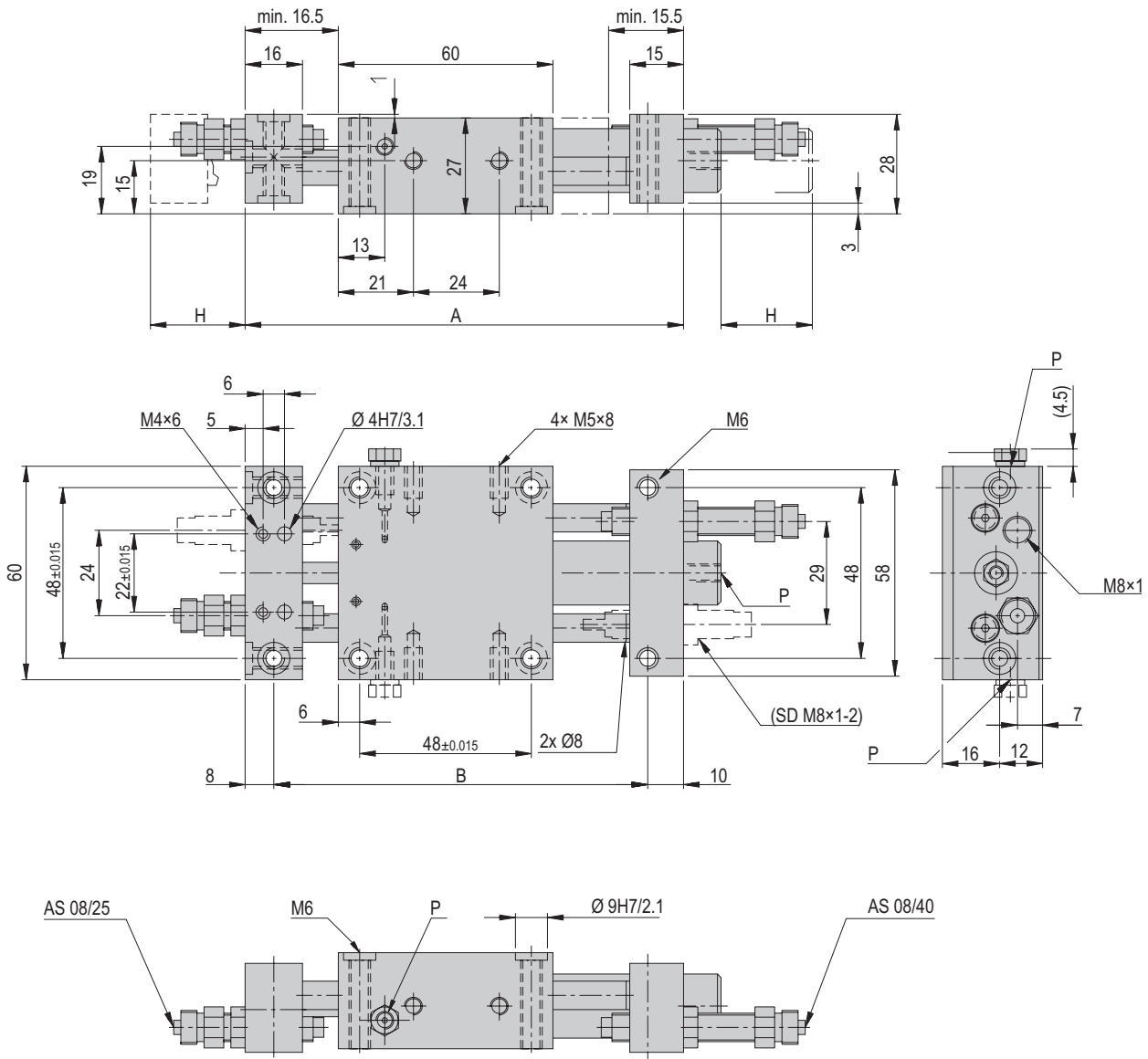


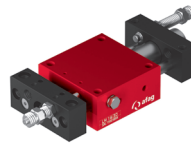
- Super robust
- Optional intermediate stops
- Tried, tested and frequently copied

Dimensions and dimension drawings

LM 16

| Type | LM 16/30 | LM 16/60 | LM 16/90 |
|------|----------|----------|----------|
| A | 122.5 mm | 152.5 mm | 182.5 mm |
| B | 104.5 mm | 134.5 mm | 164.5 mm |
| H | 30 mm | 60 mm | 90 mm |
| P | M5 | M5 | M5 |





| LM 16 | |
|--------------------------------|-------------|
| Attachment grid | 48 x 48 mm |
| Attachment thread | M6 |
| Operating pressure | 6 +/- 2 bar |
| Air connection P | M5 |
| Cylinder Ø | 16 mm |
| Retract piston force | 104 N |
| Extend piston force | 121 N |
| Operating temperature | 0 - 50 °C |
| Storage temperature | 0 - 50 °C |
| Humidity | < 90 % |
| Medium filtered compressed air | 10 - 40 µm |

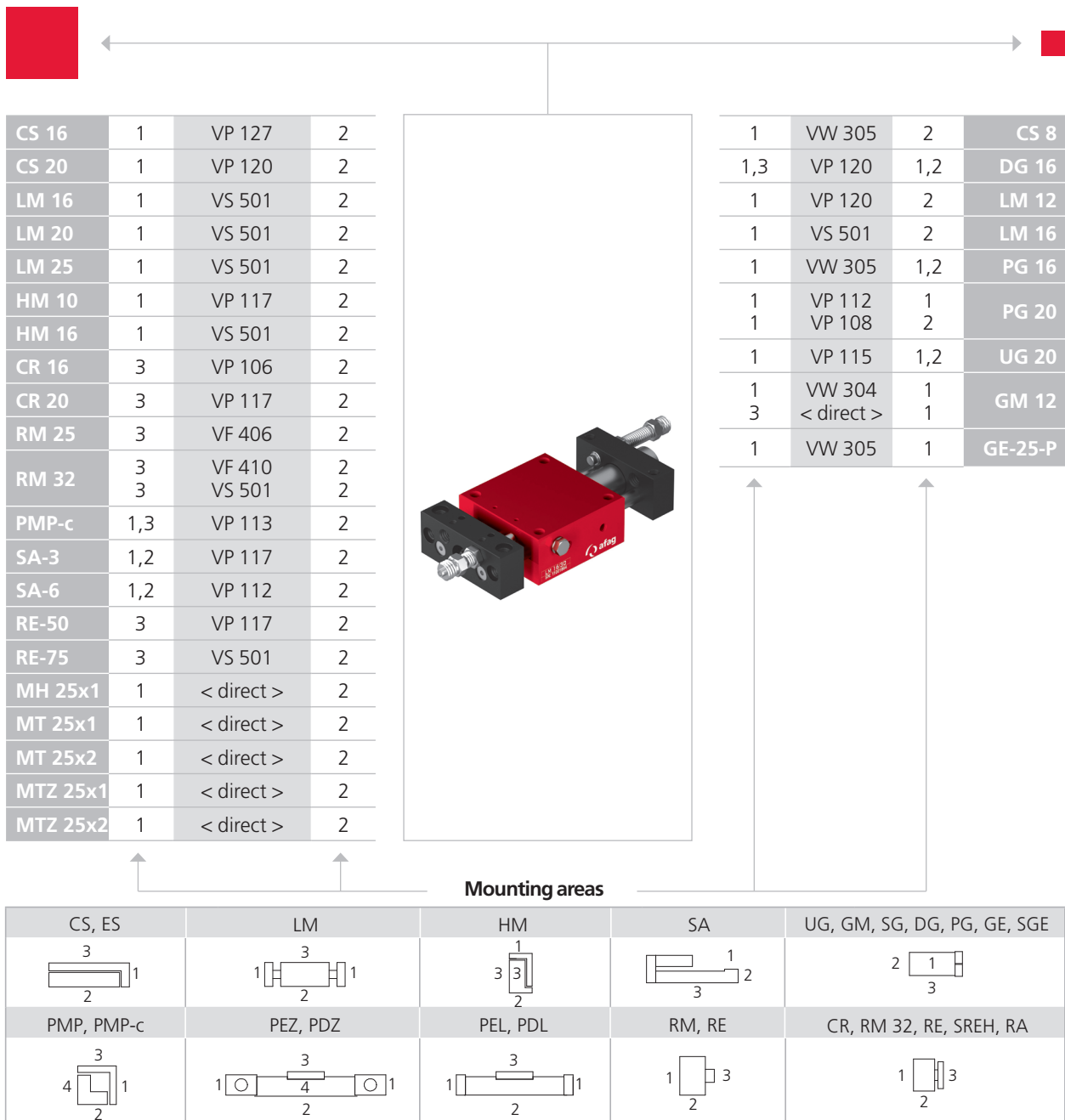
| Type | LM 16/30 | LM 16/60 | LM 16/90 |
|-----------------------|-----------------|-----------------|-----------------|
| Order number | 11001864 | 11001865 | 11001866 |
| Stroke H | 30 mm | 60 mm | 90 mm |
| Stroke limitation | *20 mm | *20 mm | *20 mm |
| Net weight | 0.478 kg | 0.515 kg | 0.554 kg |
| Moving weight | 0.138 kg | 0.175 kg | 0.214 kg |
| Air consumption/cycle | 0.036 NL | 0.072 NL | 0.108 NL |
| Noise level | 60 dB (A) | 60 dB (A) | 60 dB (A) |
| Repeat accuracy | +/- 0.02 mm | +/- 0.02 mm | +/- 0.02 mm |
| Mounting position | ✦ | ✦ | ✦ |

The technical data refer to a nominal pressure of 6 bar under Afag standard test conditions.
 The module can be operated with lubricated or dry air.
 Cleanroom class ISO 14644-1, class ISO 7
 *Optional 2 x 20 mm

- Included in the delivery**
 (Catalogue HT accessories)
- 2x Centering bushing Ø9x4
 - 1x Stop screw AS 08/25
 - 1x Stop screw AS 08/40

- Accessories**
- Base plate LM 16 [p. 105]
 - Stop L-bar LM 12/LM 16 [p. 105]
- (Catalogue HT accessories)
- Shock absorber SD M8x1 -2
 - Stop screw AS 08/80
 - INI d6.5x44-Sn1.5-PNP-NO-M8x1

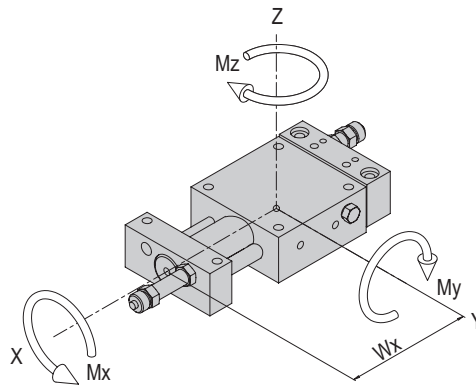
- Alternative accessories**
 (Catalogue HT accessories)
- INI d6.5x35-Sn1.5-PNP-NO-M8x1



Note that there might be different mounting positions from one module to another one.

The required connection elements and the range of support columns are depicted in the catalogue HT accessories.

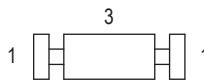
| Type | LM 16/30 | LM 16/60 | LM 16/90 |
|------------------------|----------|----------|----------|
| Max. static torque Mx | 11 Nm | 11 Nm | 11 Nm |
| Max. static torque My | 18 Nm | 18 Nm | 18 Nm |
| Max. static torque Mz | 18 Nm | 18 Nm | 18 Nm |
| Max. dynamic torque Mx | 5 Nm | 5 Nm | 5 Nm |
| Max. dynamic torque My | 8 Nm | 8 Nm | 8 Nm |
| Max. dynamic torque Mz | 8 Nm | 8 Nm | 8 Nm |
| Effective distance Wx | 71 mm | 71 mm | 71 mm |



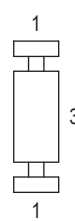
| Maximum payload/type | LM 16/30 | LM 16/60 | LM 16/90 |
|--|----------|----------|----------|
| Installation position (horizontal) for mounting side 1 | 1 kg | 1 kg | 0.8 kg |
| Installation position (horizontal) for mounting side 3 | 1 kg | 1 kg | 0.8 kg |
| Installation position (vertical) for mounting side 1 | 1 kg | 1 kg | 0.8 kg |
| Installation position (vertical) for mounting side 3 | 1 kg | 1 kg | 0.8 kg |

Assembly sides
module mounting

horizontal:

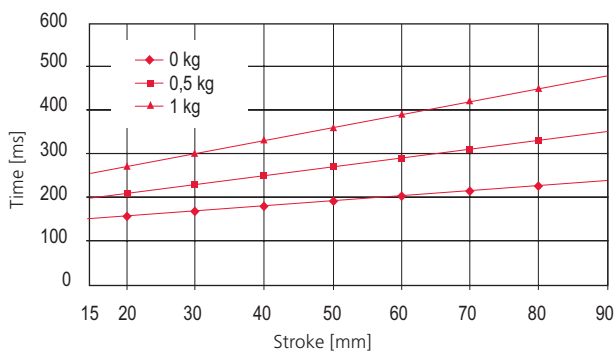


vertical:

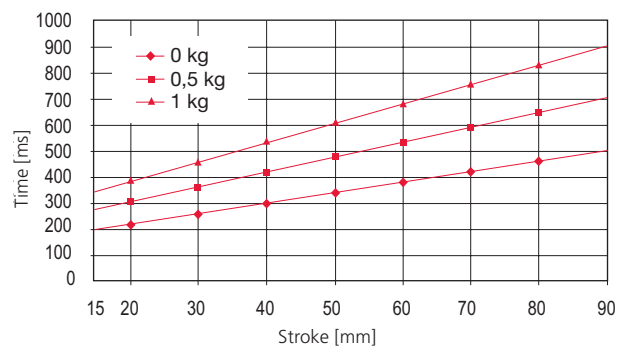


Operation time diagrams

Stroke time LM 16 with shock absorber

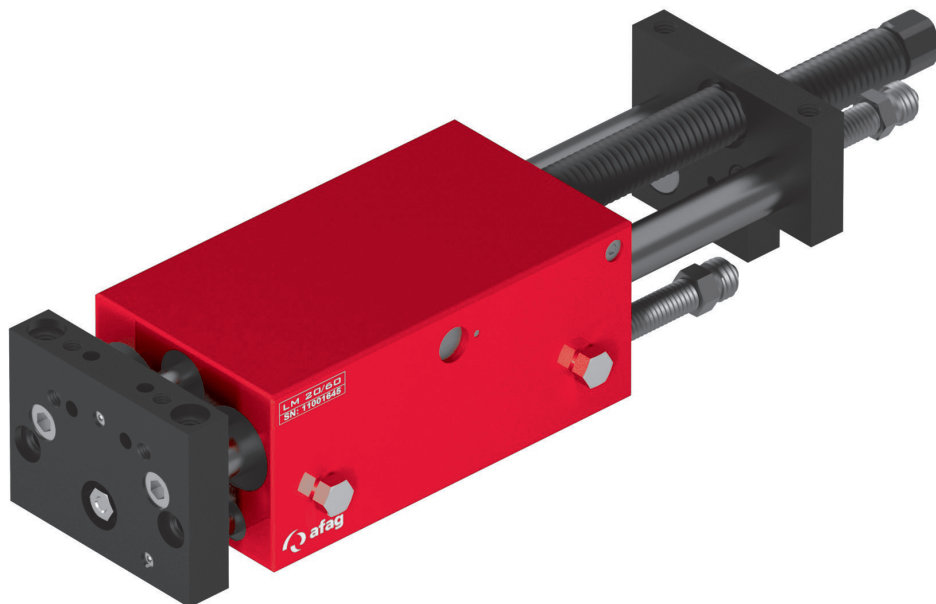


Stroke time LM 16 without shock absorber



Linear modules LM

LM 20

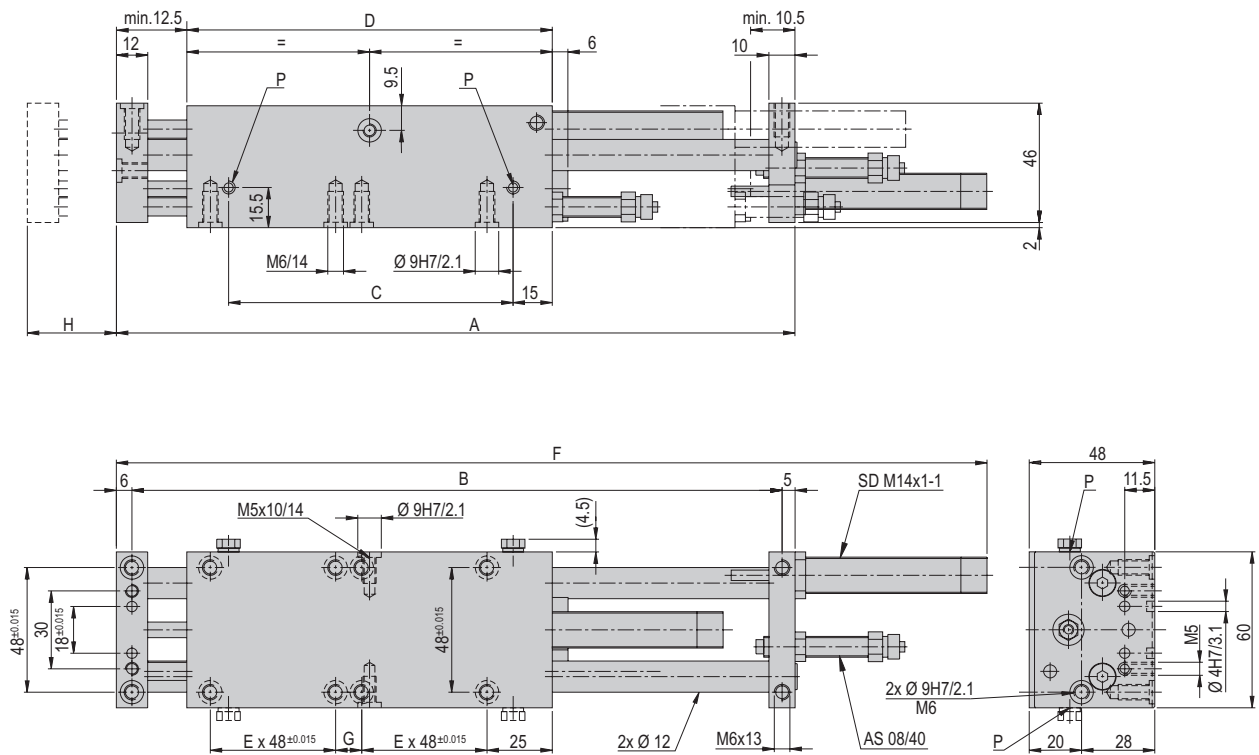


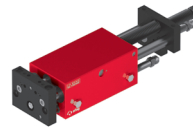
- Super robust
- Optional intermediate stops
- Tried, tested and frequently copied

Dimensions and dimension drawings

LM 20

| Type | LM 20/30 | LM 20/60 | LM 20/90 | LM 20/120 | LM 20/150 | LM 20/200 |
|------|----------|----------|----------|-----------|-----------|-----------|
| A | 140 mm | 200 mm | 260 mm | 320 mm | 380 mm | 480 mm |
| B | 129 mm | 189 mm | 249 mm | 309 mm | 369 mm | 469 mm |
| C | 50 mm | 79 mm | 109 mm | 139 mm | 169 mm | 219 mm |
| D | 80 mm | 110 mm | 140 mm | 170 mm | 200 mm | 250 mm |
| E | 1 | 1 | 2 | 2 | 3 | 4 |
| F | 212 mm | 272 mm | 332 mm | 392 mm | 452 mm | 552 mm |
| G | | | 10 mm | 24 mm | | |
| H | 30 mm | 60 mm | 90 mm | 120 mm | 150 mm | 200 mm |
| P | M5 | M5 | M5 | M5 | M5 | M5 |





| LM 20 | |
|--------------------------------|-------------|
| Attachment grid | 48 x 48 mm |
| Attachment thread | M6 |
| Operating pressure | 6 +/- 2 bar |
| Air connection P | M5 |
| Cylinder Ø | 20 mm |
| Retract piston force | 140 N |
| Extend piston force | 172 N |
| Operating temperature | 0 - 50 °C |
| Storage temperature | 0 - 50 °C |
| Humidity | < 90 % |
| Medium filtered compressed air | 10 - 40 µm |

| Type | LM 20/30 | LM 20/60 | LM 20/90 | LM 20/120 | LM 20/150 | LM 20/200 |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Order number | 11001720 | 11001645 | 11001646 | 11001647 | 11001648 | 11009043 |
| Stroke H | 30 mm | 60 mm | 90 mm | 120 mm | 150 mm | 200 mm |
| Stroke limitation | 2 x 25 mm | 2 x 25 mm | 2 x 25 mm | 2 x 25 mm | 2 x 25 mm | 2 x 25 mm |
| Net weight | 1.28 kg | 1.55 kg | 1.82 kg | 2.1 kg | 2.372 kg | 2.82 kg |
| Moving weight | 0.71 kg | 0.84 kg | 0.97 kg | 1.11 kg | 1.23 kg | 1.44 kg |
| Air consumption/cycle | 0.065 NL | 0.125 NL | 0.19 NL | 0.255 NL | 0.32 NL | 0.43 NL |
| Noise level | 65 dB (A) | 65 dB (A) | 65 dB (A) | 65 dB (A) | 65 dB (A) | 65 dB (A) |
| Repeat accuracy | +/- 0.01 mm | +/- 0.01 mm | +/- 0.01 mm | +/- 0.02 mm | +/- 0.02 mm | +/- 0.02 mm |
| Number of interim attachments | | 1 | 1 | 1 | 1 | 1 |
| Damping travel | 15 mm | 15 mm | 15 mm | 15 mm | 15 mm | 15 mm |
| Mounting position | ✦ | ✦ | ✦ | ✦ | ✦ | ✦ |

The technical data refer to a nominal pressure of 6 bar under Afag standard test conditions.
 The module can be operated with lubricated or dry air.
 Cleanroom class ISO 14644-1, class ISO 7

Included in the delivery

(Catalogue HT accessories)

- 2x Centering bushing Ø9x4
- 2x Stop screw AS 08/40
- 2x Shock absorber SD M14x1 -1

Accessories

- Base plate LM 20/LM 25 [p. 106]
- 3. Position LM 20 [p. 106]
- Intermediate stop ZA 20/25 [p. 108]

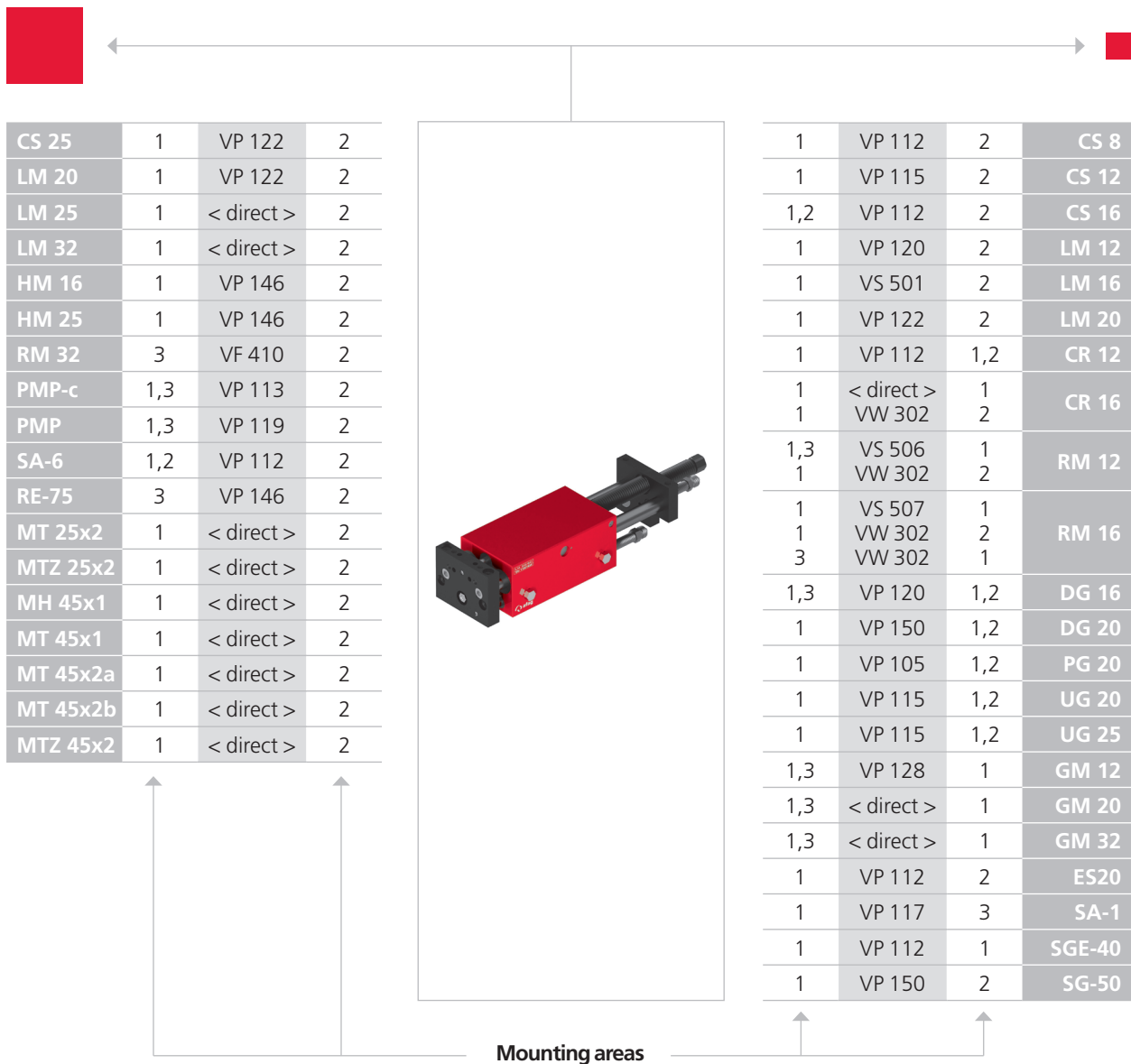
(Catalogue HT accessories)

- Stop screw AS 08/80
- Stop screw AS 08/25
- INI d6.5x44-Sn1.5-PNP-NO-M8x1

Alternative accessories

(Catalogue HT accessories)

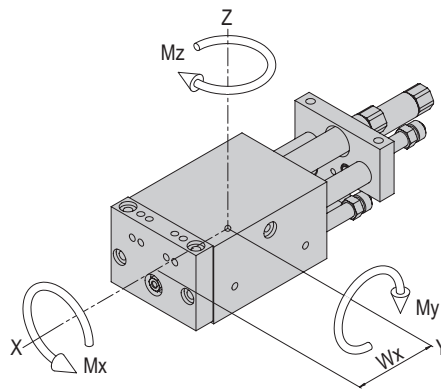
- INI d6.5x35-Sn1.5-PNP-NO-M8x1



| | | | | |
|----------------|--------------|--------------|------------|---------------------------------|
| CS, ES | LM | HM | SA | UG, GM, SG, DG, PG, GE, SGE |
| PMP, PMP-c | PEZ, PDZ | PEL, PDL | RM, RE | CR, RM 32, RE, SREH, RA |

Note that there might be different mounting positions from one module to another one.
The required connection elements and the range of support columns are depicted in the catalogue HT accessories.

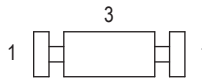
| Type | LM 20/30 | LM 20/60 | LM 20/90 | LM 20/120 | LM 20/150 | LM 20/200 |
|------------------------|----------|----------|----------|-----------|-----------|-----------|
| Max. static torque Mx | 11 Nm | 11 Nm | 11 Nm | 11 Nm | 11 Nm | 11 Nm |
| Max. static torque My | 11 Nm | 17 Nm | 23 Nm | 29 Nm | 35 Nm | 45 Nm |
| Max. static torque Mz | 11 Nm | 17 Nm | 23 Nm | 29 Nm | 35 Nm | 45 Nm |
| Max. dynamic torque Mx | 3 Nm | 3 Nm | 3 Nm | 3 Nm | 3 Nm | 3 Nm |
| Max. dynamic torque My | 5 Nm | 8 Nm | 10 Nm | 13 Nm | 16 Nm | 20 Nm |
| Max. dynamic torque Mz | 5 Nm | 8 Nm | 10 Nm | 13 Nm | 16 Nm | 20 Nm |
| Effective distance Wx | 80 mm | 110 mm | 140 mm | 170 mm | 200 mm | 250 mm |



| Maximum payload/type | LM 20/30 | LM 20/60 | LM 20/90 | LM 20/120 | LM 20/150 | LM 20/200 |
|--|----------|----------|----------|-----------|-----------|-----------|
| Installation position (horizontal) for mounting side 1 | 8 kg | 7 kg | 5 kg | 4 kg | 3 kg | 2 kg |
| Installation position (horizontal) for mounting side 3 | 8 kg | 7 kg | 5 kg | 4 kg | 3 kg | 2 kg |
| Installation position (vertical) for mounting side 1 | 8 kg | 7 kg | 5 kg | 4 kg | 3 kg | 2 kg |
| Installation position (vertical) for mounting side 3 | 8 kg | 7 kg | 5 kg | 4 kg | 3 kg | 2 kg |

Assembly sides
module mounting

horizontal:

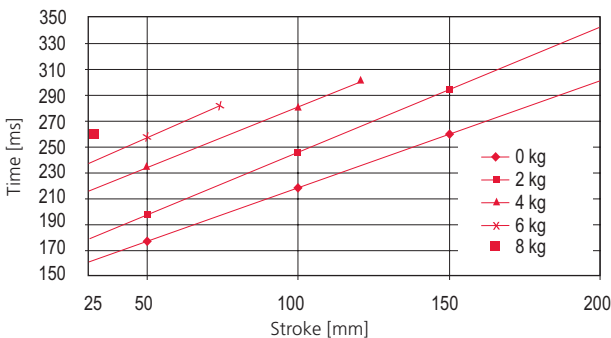


vertical:



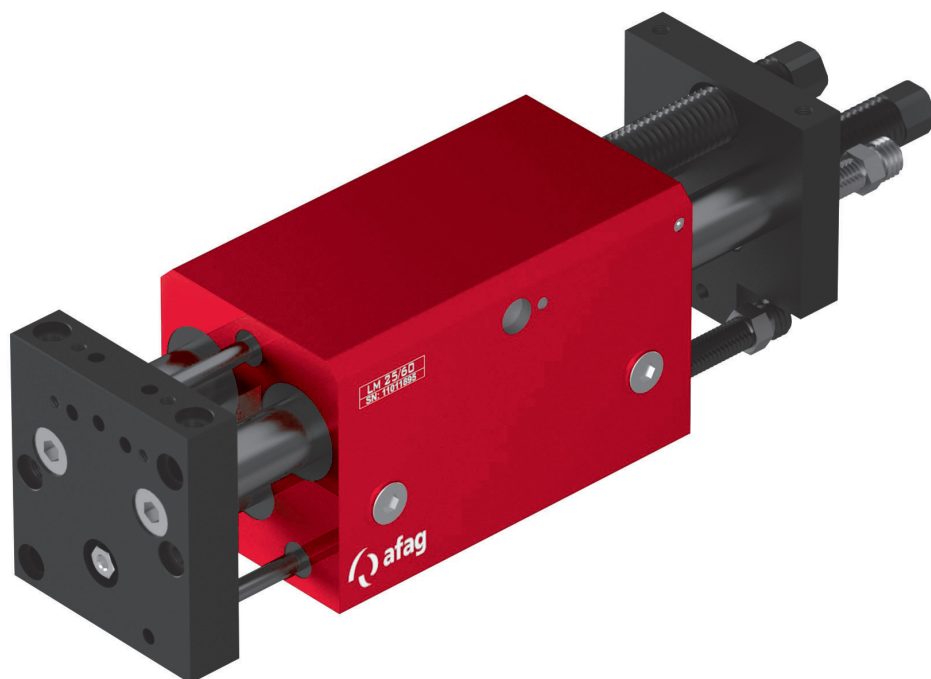
Operation time diagrams

Stroke time LM 20 with shock absorber



Linear modules LM

LM 25

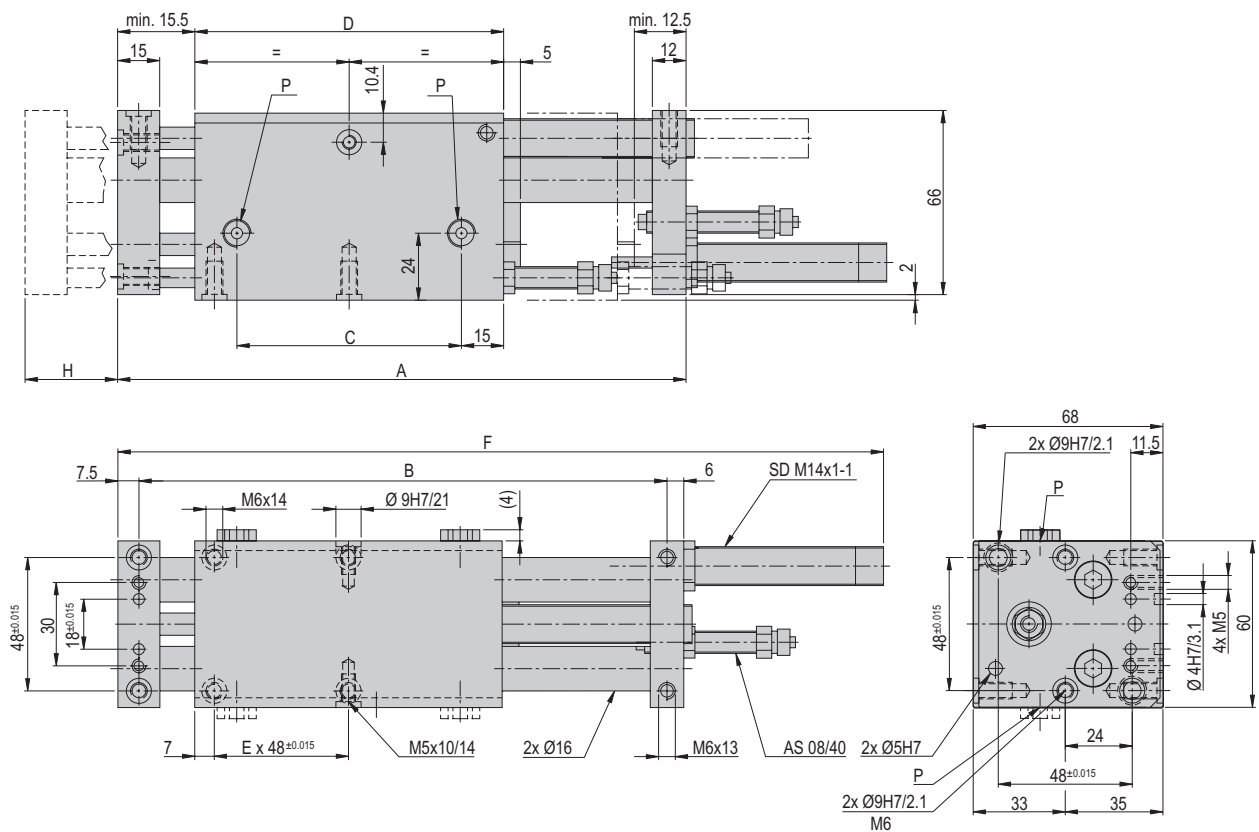


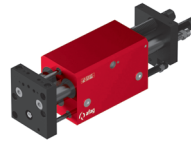
- Super robust
- Optional intermediate stops
- Tried, tested and frequently copied

Dimensions and dimension drawings

LM 25

| Type | LM 25/60 | LM 25/120 | LM 25/200 |
|------|----------|-----------|-----------|
| A | 202.5 mm | 322.5 mm | 482.5 mm |
| B | 189 mm | 309 mm | 469 mm |
| C | 80 mm | 140 mm | 220 mm |
| D | 110 mm | 170 mm | 250 mm |
| E | 1 | 2 | 4 |
| F | 277.5 mm | 397.5 mm | 557.5 mm |
| H | 60 mm | 120 mm | 200 mm |
| P | G 1/8 " | G 1/8 " | G 1/8 " |





| LM 25 | |
|--------------------------------|-------------|
| Attachment grid | 48 x 48 mm |
| Attachment thread | M6 |
| Operating pressure | 6 +/- 2 bar |
| Air connection P | G1/8 " |
| Cylinder Ø | 25 mm |
| Retract piston force | 265 N |
| Extend piston force | 295 N |
| Operating temperature | 0 - 50 °C |
| Storage temperature | 0 - 50 °C |
| Humidity | < 90 % |
| Medium filtered compressed air | 10 - 40 µm |

| Type | LM 25/60 | LM 25/120 | LM 25/200 |
|-----------------------|-----------------|-----------------|-----------------|
| Order number | 11011895 | 11011896 | 11011897 |
| Stroke H | 60 mm | 120 mm | 200 mm |
| Stroke limitation | 2x25 mm | 2x25 mm | 2x25 mm |
| Net weight | 1.965 kg | 2.821 kg | 3.944 kg |
| Moving weight | 0.99 kg | 1.43 kg | 2.01 kg |
| Air consumption/cycle | 0.164 NL | 0.33 NL | 0.55 NL |
| Noise level | 65 dB (A) | 65 dB (A) | 65 dB (A) |
| Repeat accuracy | +/- 0.01 mm | +/- 0.02 mm | +/- 0.02 mm |
| Mounting position | ✦ | ✦ | ✦ |

The technical data refer to a nominal pressure of 6 bar under Afag standard test conditions.
 The module can be operated with lubricated or dry air.
 Cleanroom class ISO 14644-1, class ISO 7

Included in the delivery

(Catalogue HT accessories)

- 2x Centering bushing Ø9x4
- 2x Stop screw AS 08/40
- 2x Shock absorber SD M14x1 -1

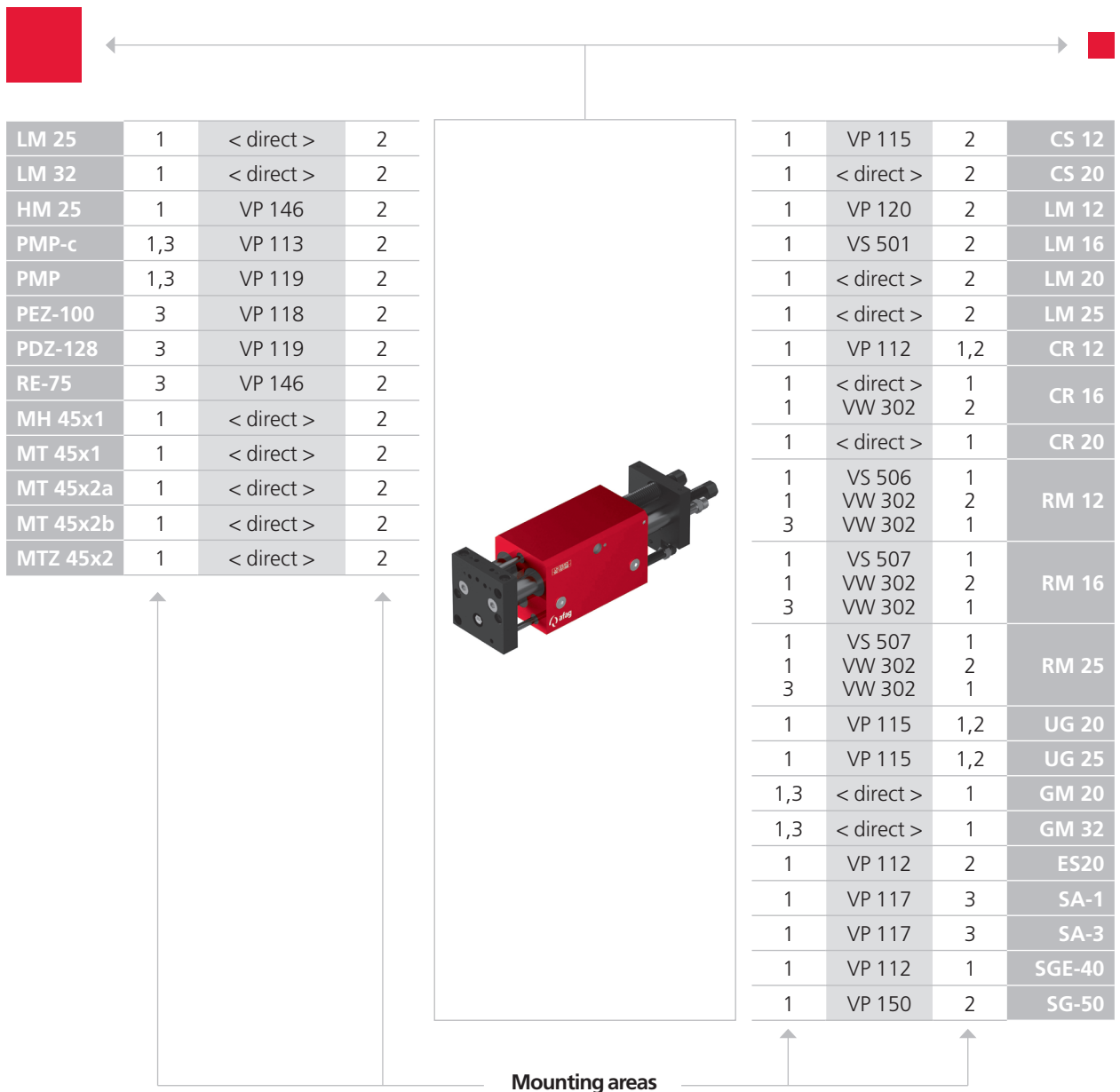
Accessories

- Base plate LM 20/LM 25 [p. 106]
 - 3. Position LM 25 [p. 107]
 - Intermediate stop ZA 20/25 [p. 108]
- (Catalogue HT accessories)
- INI d6.5x44-Sn1.5-PNP-NO-M8x1

Alternative accessories

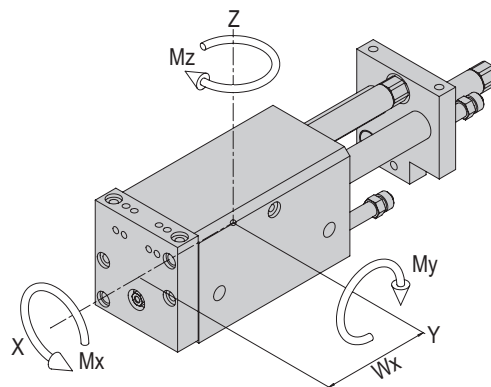
(Catalogue HT accessories)

- INI d6.5x35-Sn1.5-PNP-NO-M8x1



Note that there might be different mounting positions from one module to another one.
The required connection elements and the range of support columns are depicted in the catalogue HT accessories.

| Type | LM 25/60 | LM 25/120 | LM 25/200 |
|------------------------|----------|-----------|-----------|
| Max. static torque Mx | 8 Nm | 8 Nm | 8 Nm |
| Max. static torque My | 20 Nm | 35 Nm | 55 Nm |
| Max. static torque Mz | 20 Nm | 35 Nm | 55 Nm |
| Max. dynamic torque Mx | 4 Nm | 4 Nm | 4 Nm |
| Max. dynamic torque My | 9 Nm | 16 Nm | 25 Nm |
| Max. dynamic torque Mz | 9 Nm | 16 Nm | 25 Nm |
| Effective distance Wx | 85 mm | 115 mm | 145 mm |



| Maximum payload/type | LM 25/60 | LM 25/120 | LM 25/200 |
|--|----------|-----------|-----------|
| Installation position (horizontal) for mounting side 1 | 9 kg | 6 kg | 4 kg |
| Installation position (horizontal) for mounting side 3 | 9 kg | 6 kg | 4 kg |
| Installation position (vertical) for mounting side 1 | 9 kg | 6 kg | 4 kg |
| Installation position (vertical) for mounting side 3 | 9 kg | 6 kg | 4 kg |

Assembly sides
module mounting

horizontal:

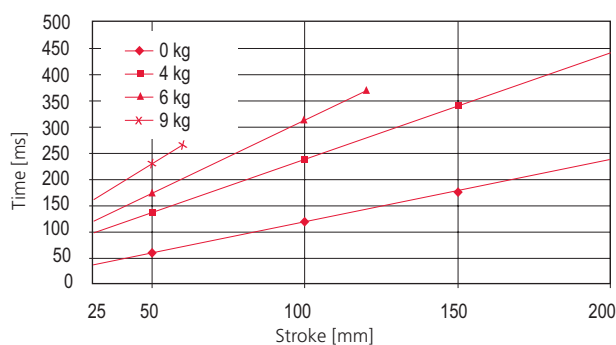


vertical:



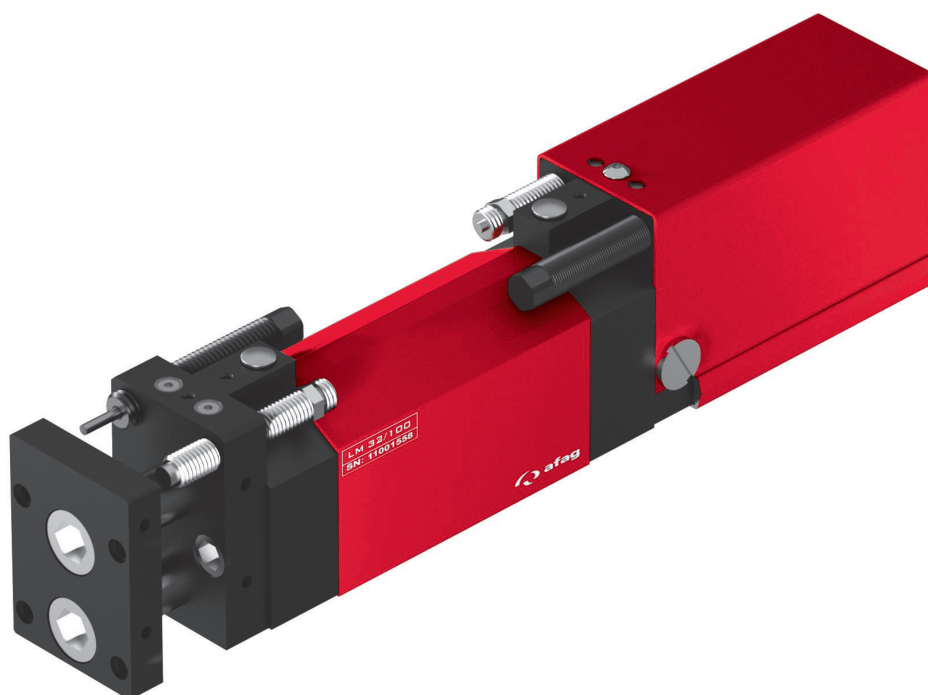
Operation time diagrams

Stroke time LM 25 with shock absorber



Linear modules LM

LM 32

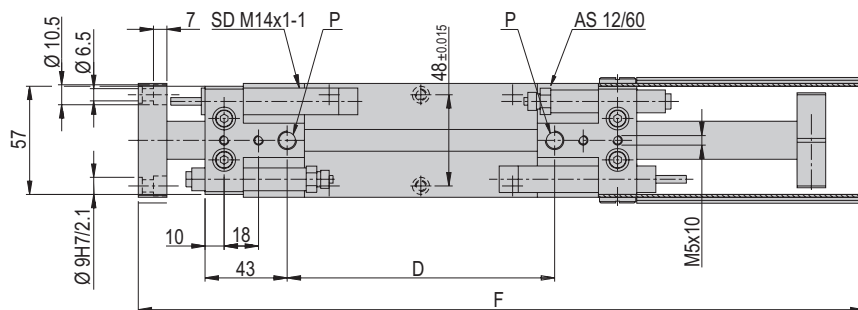
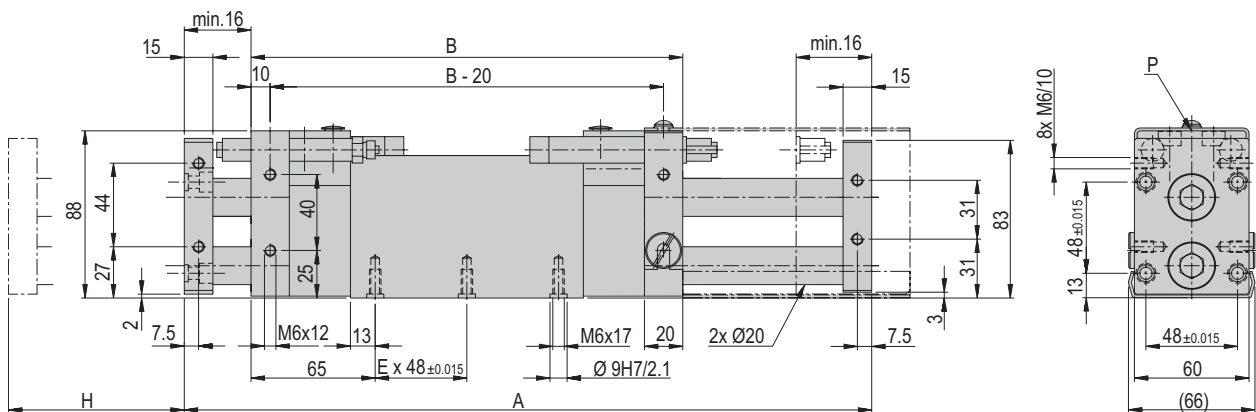


- Super robust
- Optional intermediate stops
- Tried, tested and frequently copied

Dimensions and dimension drawings

LM 32

| Type | LM 32/100 | LM 32/200 | LM 32/300 | LM 32/400 |
|------|-----------|-----------|-----------|-----------|
| A | 360 mm | 560 mm | 760 mm | 960 mm |
| B | 226 mm | 326 mm | 426 mm | 526 mm |
| D | 140 mm | 240 mm | 340 mm | 440 mm |
| E | 2 | 4 | 6 | 8 |
| F | 365 mm | 565 mm | 765 mm | 965 mm |
| H | 100 mm | 200 mm | 300 mm | 400 mm |
| P | G 1/8 " | G 1/8 " | G 1/8 " | G 1/8 " |





| LM 32 | |
|--------------------------------|-------------|
| Attachment grid | 48 x 48 mm |
| Attachment thread | M6 |
| Operating pressure | 6 +/- 2 bar |
| Air connection P | G1/8 " |
| Cylinder Ø | 32 mm |
| Retract piston force | 295 N |
| Extend piston force | 295 N |
| Operating temperature | 0 - 50 °C |
| Storage temperature | 0 - 50 °C |
| Humidity | < 90 % |
| Medium filtered compressed air | 10 - 40 µm |

| Type | LM 32/100 | LM 32/200 | LM 32/300 | LM 32/400 |
|-----------------------|-----------------|-----------------|-----------------|-----------------|
| Order number | 11001558 | 11001559 | 11001561 | 11001562 |
| Stroke H | 100 mm | 200 mm | 300 mm | 400 mm |
| Stroke limitation | 2 x 40 mm | 2 x 40 mm | 2 x 40 mm | 2 x 40 mm |
| Net weight | 4 kg | 5.4 kg | 6.6 kg | 7.9 kg |
| Moving weight | 1.81 kg | 2.29 kg | 2.79 kg | 3.28 kg |
| Air consumption/cycle | 0.4 NL | 0.8 NL | 1.2 NL | 1.6 NL |
| Noise level | 65 dB (A) | 65 dB (A) | 65 dB (A) | 65 dB (A) |
| Repeat accuracy | +/- 0.01 mm | +/- 0.01 mm | +/- 0.02 mm | +/- 0.02 mm |
| Mounting position | ✦ | ✦ | ✦ | ✦ |

The technical data refer to a nominal pressure of 6 bar under Afag standard test conditions.
 The module can be operated with lubricated or dry air.
 Cleanroom class ISO 14644-1, class ISO 7

Included in the delivery

(Catalogue HT accessories)

- 2x Centering bushing Ø9x4
- 2x Stop screw AS 12/60
- 2x Shock absorber SD M14x1 -1

Accessories

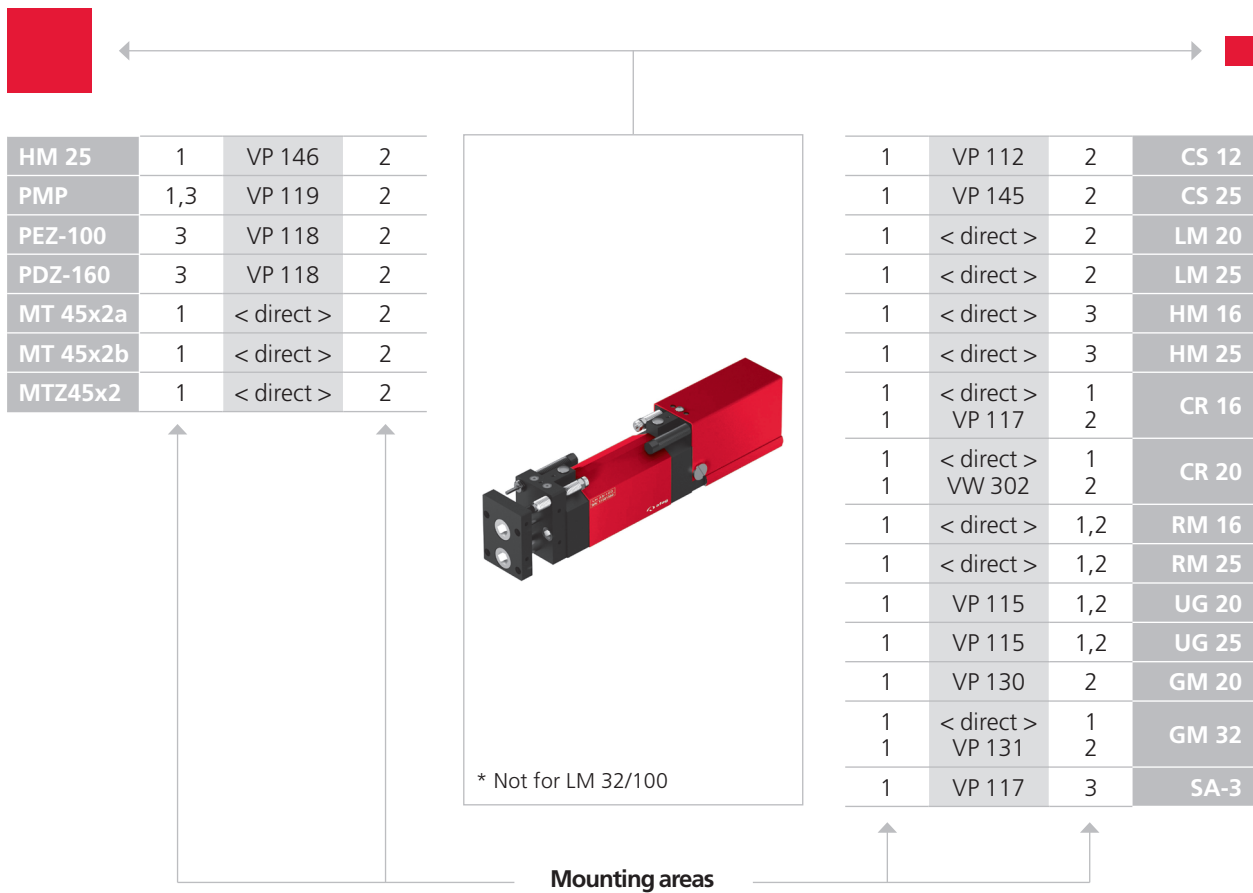
(Catalogue HT accessories)

- INI d6.5x44-Sn1.5-PNP-NO-M8x1

Alternative accessories

(Catalogue HT accessories)

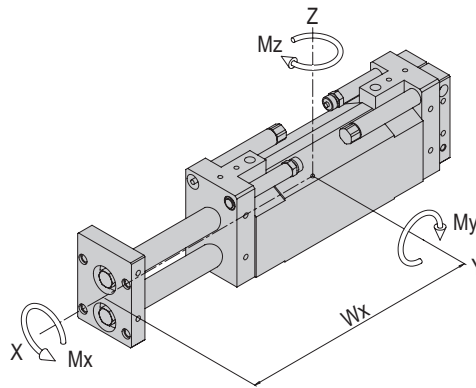
- INI d6.5x35-Sn1.5-PNP-NO-M8x1



| | | | | |
|----------------|--------------|--------------|------------|---------------------------------|
| CS, ES | LM | HM | SA | UG, GM, SG, DG, PG, GE, SGE |
| PMP, PMP-c | PEZ, PDZ | PEL, PDL | RM, RE | CR, RM 32, RE, SREH, RA |

Note that there might be different mounting positions from one module to another one.
The required connection elements and the range of support columns are depicted in the catalogue HT accessories.

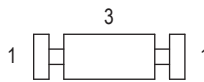
| Type | LM 32/100 | LM 32/200 | LM 32/300 | LM 32/400 |
|------------------------|-----------|-----------|-----------|-----------|
| Max. static torque Mx | 12 Nm | 12 Nm | 12 Nm | 12 Nm |
| Max. static torque My | 95 Nm | 127 Nm | 158 Nm | 190 Nm |
| Max. static torque Mz | 95 Nm | 127 Nm | 158 Nm | 190 Nm |
| Max. dynamic torque Mx | 5 Nm | 5 Nm | 5 Nm | 5 Nm |
| Max. dynamic torque My | 43 Nm | 57 Nm | 71 Nm | 85 Nm |
| Max. dynamic torque Mz | 43 Nm | 57 Nm | 71 Nm | 85 Nm |
| Effective distance Wx | 311 mm | 411 mm | 511 mm | 611 mm |



| Maximum payload/type | LM 32/100 | LM 32/200 | LM 32/300 | LM 32/400 |
|--|-----------|-----------|-----------|-----------|
| Installation position (horizontal) for mounting side 1 | 10 kg | 9 kg | 7 kg | 5 kg |
| Installation position (horizontal) for mounting side 3 | 10 kg | 9 kg | 7 kg | 5 kg |
| Installation position (vertical) for mounting side 1 | 10 kg | 9 kg | 7 kg | 5 kg |
| Installation position (vertical) for mounting side 3 | 10 kg | 9 kg | 7 kg | 5 kg |

Assembly sides
module mounting

horizontal:

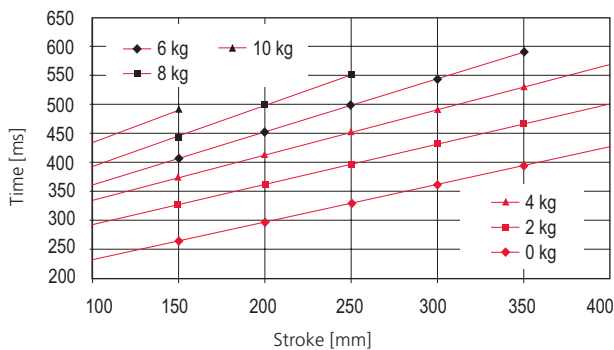


vertical:

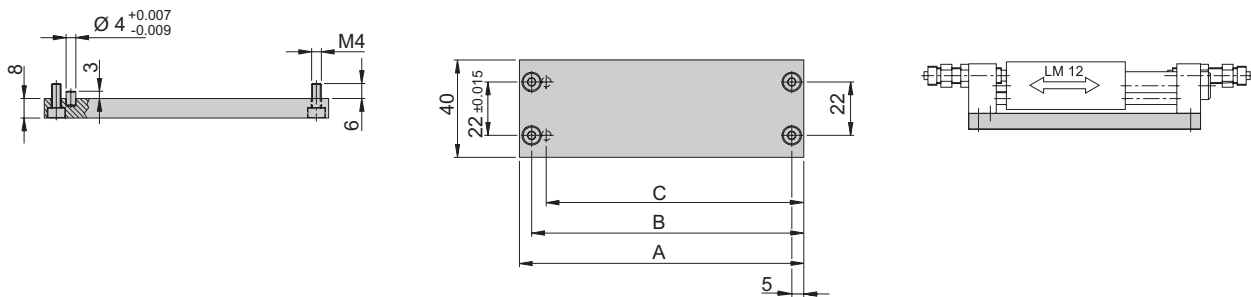


Operation time diagrams

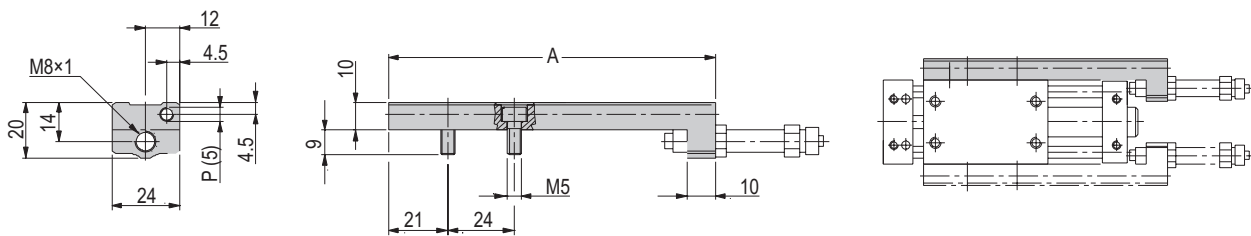
Stroke time LM 32 with shock absorber



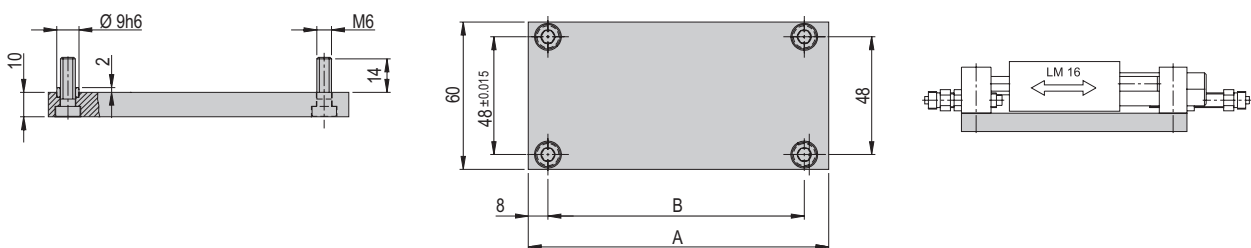
| Base plate LM 12 | LM 12/30 | LM 12/60 | LM 12/90 |
|---------------------|-----------------|-----------------|-----------------|
| Order number | 11010371 | 11010372 | 11010373 |
| Net weight | 0.1 kg | 0.13 kg | 0.16 kg |
| A | 117 mm | 147 mm | 177 mm |
| B | 112 mm | 142 mm | 172 mm |
| C | 106 mm | 136 mm | 166 mm |



| Stop L-bar LM 12/LM 16 | LM 12/30 / LM 16/30 | LM 12/60 / LM 16/60 | LM 12/90 / LM 16/90 |
|------------------------|------------------------|------------------------|------------------------|
| Order number | 11001880 | 11001884 | 11001887 |
| Net weight | 0.08 kg | 0.1 kg | 0.12 kg |
| A | 117 mm | 147 mm | 177 mm |

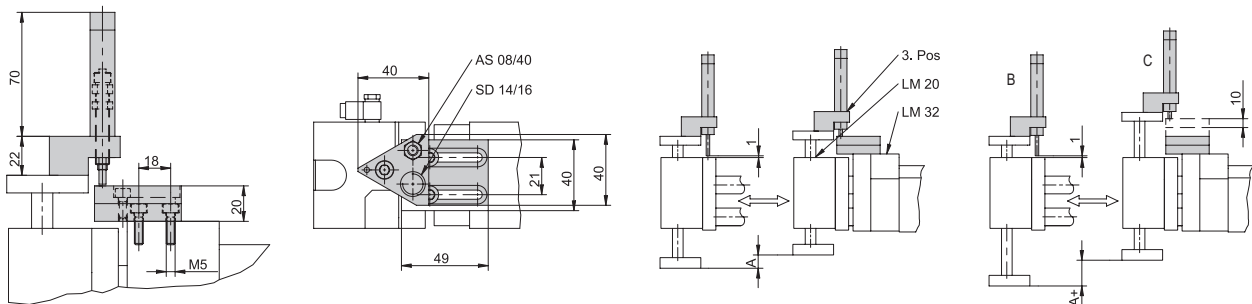


| Base plate LM 16 | LM 16/30 | LM 16/60 | LM 16/90 |
|---------------------|-----------------|-----------------|-----------------|
| Order number | 11001437 | 11001442 | 11001445 |
| Net weight | 0.21 kg | 0.28 kg | 0.32 kg |
| A | 122.5 mm | 152.5 mm | 182.5 mm |
| B | 104.5 mm | 134.5 mm | 164.5 mm |



3. Position LM 20

| | |
|---------------------|-----------------|
| Order number | 11001623 |
| Net weight | 0.45 kg |
| A | *24 mm |
| B | extended |
| C | retracted |



Note: Requirement: Module combination LM 32 with LM 20
 Purpose: Various removal and application heights can be covered between the retracted and extended states.
 Stroke difference grading: Standard = 10 mm
 1 additional plate = +10 mm
 Max. 3 additional plates possible

*LM 20/30 = 14 mm

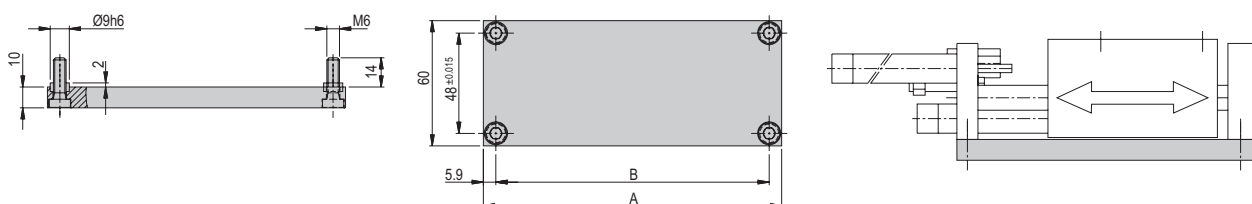
Included in the delivery (Catalogue HT accessories)

- 1x Stop carrier
- 1x Contact plate
- 1x Intermediate contact plate
- 1x Shock absorber SD M14x1 -1
- 1x Stop screw AS 08/40

Intermediate contact plate

| | |
|---------------------|-----------------|
| Order number | 11001613 |
| Net weight | 0.137 kg |

| Base plate LM 20 / LM 25 | LM 20/30 | LM 20/60 / LM 25/60 | LM 20/90 | LM 20/120 / LM 25/120 | LM 20/150 | LM 20/200 / LM 25/200 |
|--------------------------|-----------------|---------------------|-----------------|-----------------------|-----------------|-----------------------|
| Order number | 11001619 | 11001624 | 11001626 | 11001628 | 11001630 | 11009423 |
| Net weight | 0.25 kg | 0.35 kg | 0.44 kg | 0.54 kg | 0.64 kg | 0.85 kg |
| A | 140.8 mm | 200.8 mm | 260.8 mm | 320.8 mm | 380.8 mm | 480.8 mm |
| B | 129 mm | 189 mm | 249 mm | 309 mm | 369 mm | 469 mm |



3. Position LM 25

Order number

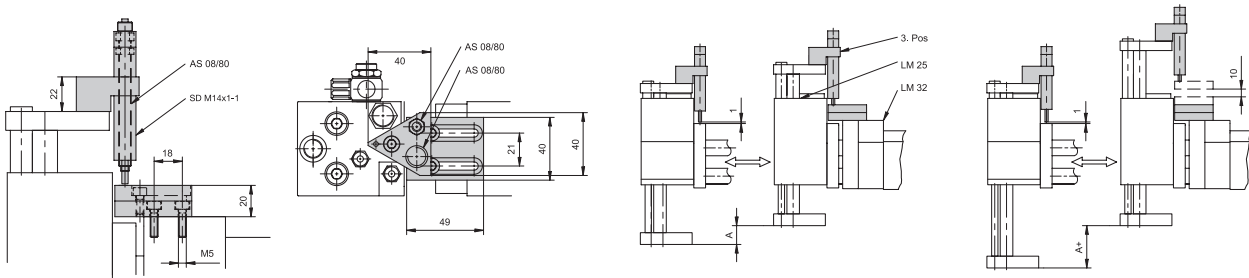
11013401

Net weight

0.45 kg

A

40 mm



Note: Requirement: Module combination LM 32 with LM 25

Purpose: Various removal and application heights can be covered between the retracted and extended states.

Stroke difference grading: Standard = 10 mm

1 additional plate = +10 mm

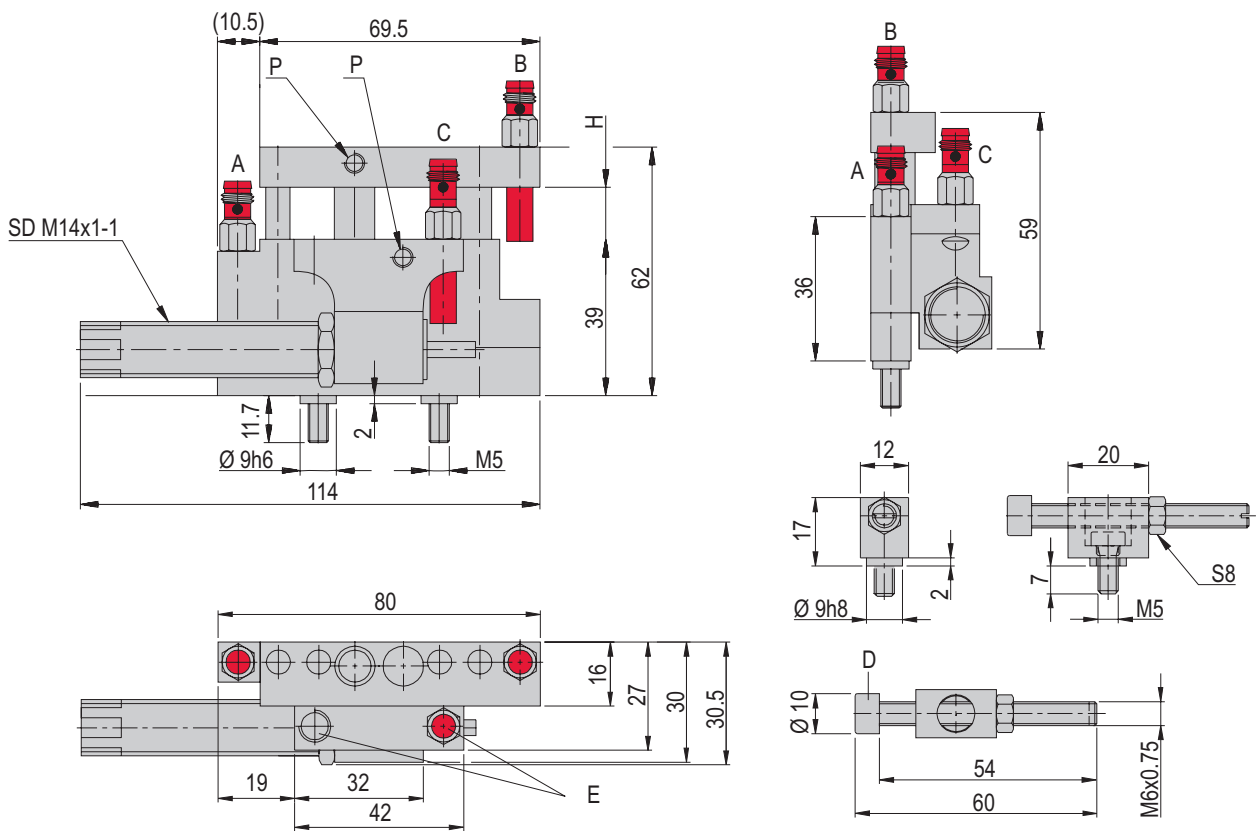
Max. 3 additional plates possible

Included in the delivery

(Catalogue HT accessories)

- 1x Stop carrier
- 1x Contact plate
- 1x Intermediate contact plate
- 1x Shock absorber SD M14x1 -1
- 1x Stop screw AS 08/40

| Intermediate stop ZA 20/25 | ZA 20/25 |
|----------------------------|---|
| Order number | 11011366 |
| Net weight | 0.3 kg |
| Weight, stop | 0.03 kg |
| Air consumption/stroke | 0.01 NL |
| Repeat accuracy | +/- 0.02 mm |
| A | ZA retracted (front)* |
| B | ZA extended (rear) |
| C | Shock absorber damped |
| D | Stop screw |
| E | Proximity switch (left or right) depending on SD installation |
| P | M5 |



 Proximity switches

The technical data refer to a nominal pressure of 6 bar under Afag standard test conditions.

Included in the delivery

(Catalogue HT accessories)

- 2x Centering bushing Ø9x4
- 1x Mounting screw M5x12
- 2x Mounting screw M5x16
- 1x Stop screw ZA20/25
- 1x Shock absorber SD M14x1 -1

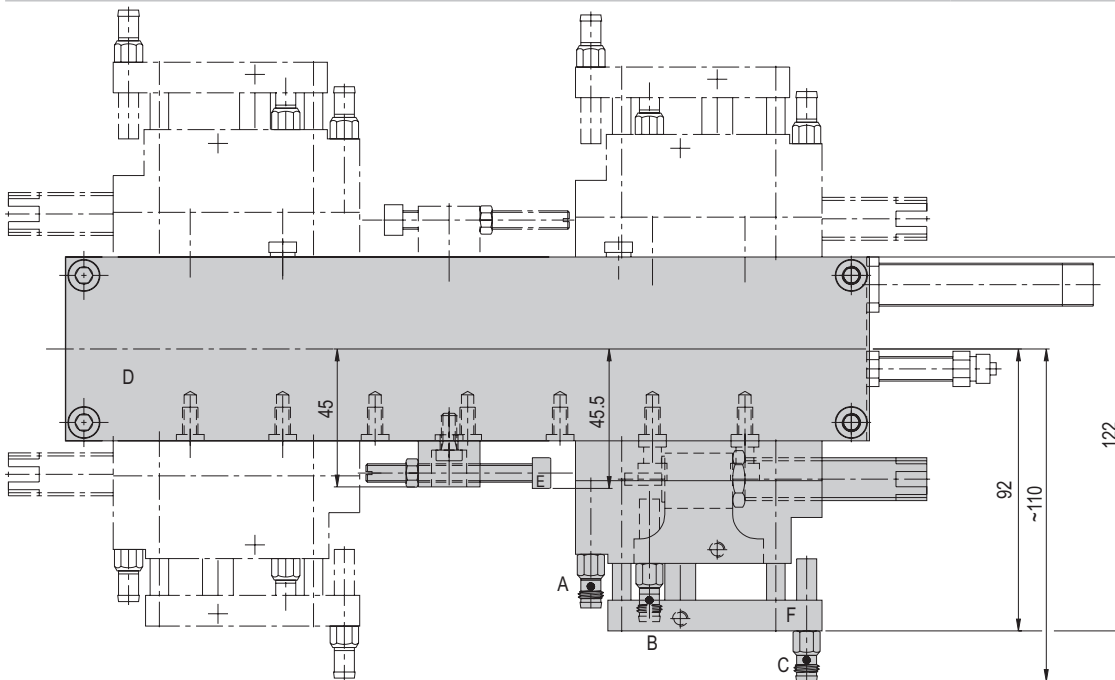
Accessories

- Base plate ZA LM 20/LM 25 [p.]
- INI d6.5x44-Sn1.5-PNP-NO-M8x1 [p.]

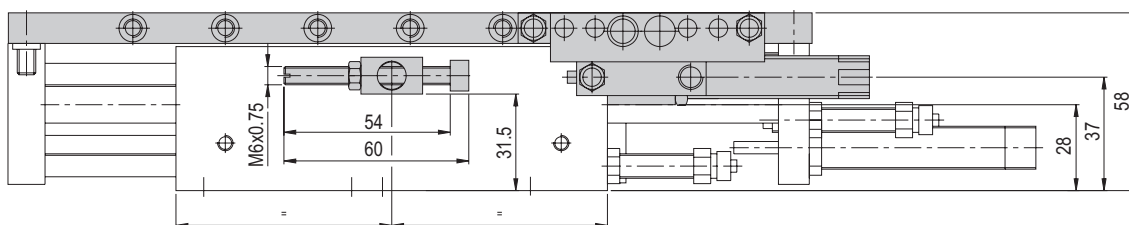
ZA 20/25

The intermediate stop can be installed acting forwards as well as backwards on the base plate ZA due to the symmetrical structure. Depending on how the base plate is installed, the intermediate stop can be fitted to the right or the left of the module. The head side of the stop screw is always oriented against the shock absorber. The base plate ZA and the stop serve for continuous intermediate position adjustment. The stop screw is fitted in the bore on the module slide and the intermediate stop is screwed into the desired position on the base plate. With the intermediate stop, you can limit the extension or retraction stroke with an intermediate position.

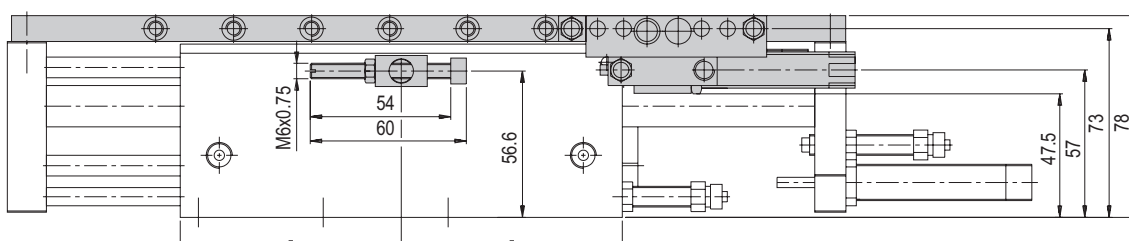
| Type | ZA 20/25 |
|------|----------------------|
| A | ZA extended (rear) |
| B | Position SD |
| C | ZA retracted (front) |
| D | Base plate |
| E | Stop screw |
| F | Intermediate stop |



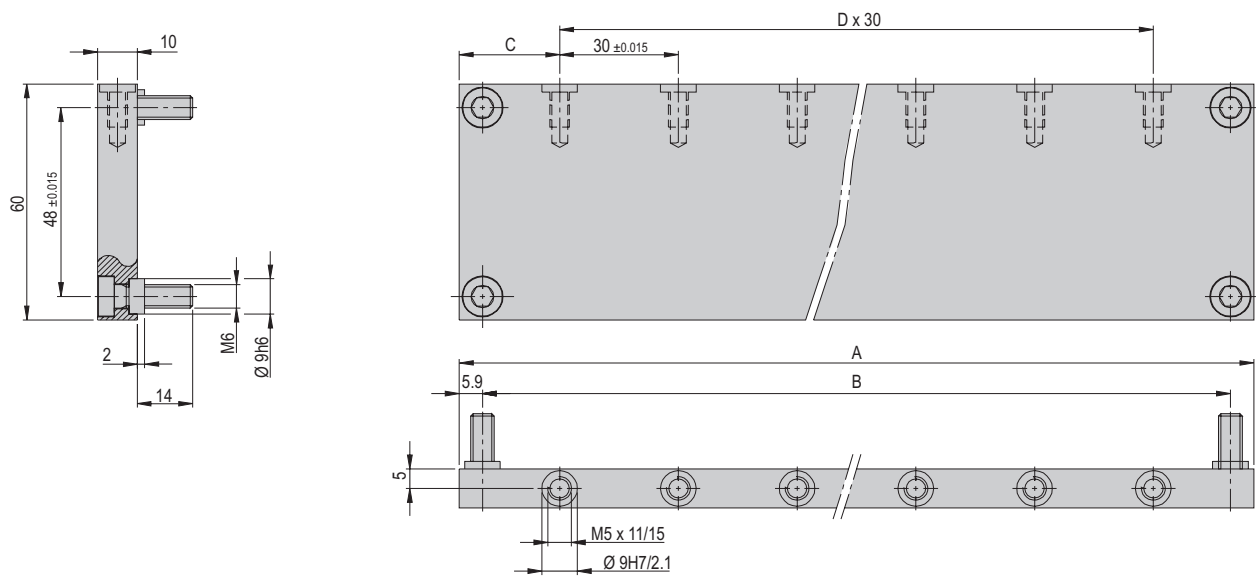
ZA 20/25 - LM 20



ZA 20/25 - LM 25

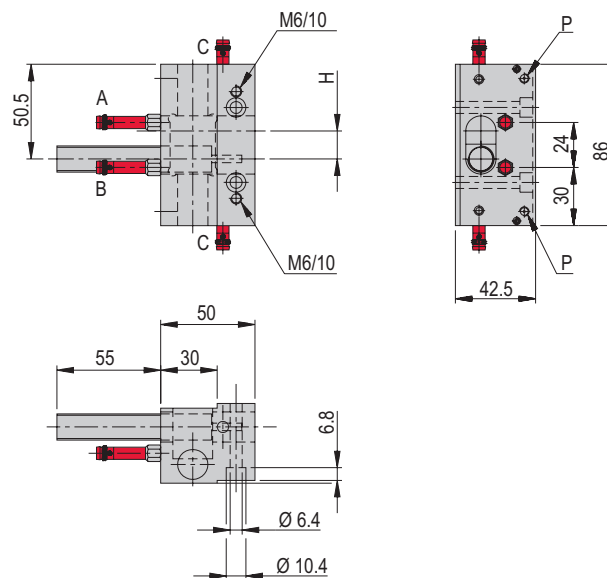


| Base plate ZA LM 20 / LM 25 | LM 20/60 LM 25/60 | LM 20/90 | LM 20/120 LM 25/120 | LM 20/150 | LM 20/200 LM 25/200 |
|-------------------------------|----------------------|-----------------|------------------------|-----------------|------------------------|
| Order number | 11011031 | 11011032 | 11011033 | 11011034 | 11011035 |
| Net weight | 0.34 kg | 0.43 kg | 0.53 kg | 0.63 kg | 0.84 kg |
| Number of interim attachments | 1 | 1 | 1 | 1 | 1 |
| A | 200.8 mm | 260.8 mm | 320.8 mm | 380.8 mm | 480.8 mm |
| B | 189 mm | 249 mm | 309 mm | 369 mm | 469 mm |
| C | 25.4 mm | 40.4 mm | 55.4 mm | 70.4 mm | 90.4 mm |
| D | 5 | 6 | 7 | 8 | 10 |



Note: No ZA is provided for the LM 20/30

| Intermediate stop ZA 32 | ZA 32 |
|-------------------------|------------------------|
| Order number | 11009325 |
| Net weight | 0.574 kg |
| A | ZA retracted (bottom)* |
| B | ZA extended (top)* |
| C | Shock absorber damped |
| H | 15 mm |
| P | M5 |



 Proximity switches

The technical data refer to a nominal pressure of 6 bar under Afag standard test conditions.
Note: A back or front stop rod, depending on the place of installation, must also be ordered.

*Proximity switch (optional)

Included in the delivery

(Catalogue HT accessories)

- 2x Mounting screw M6x45
- 1x Shock absorber SD M14x1 -1
- 2x Clamping nut M8x0.75

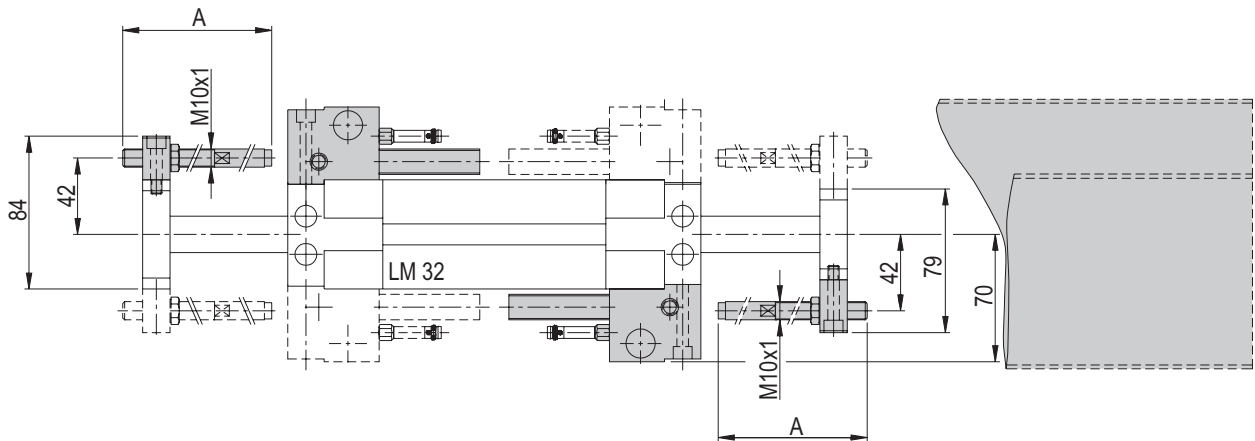
Accessories

- Back stop rod ZA 32 [p. 114]
 - Front stop rod ZA 32 [p. 113]
 - Narrow safety cover ZA 32 [p. 114]
 - Wide safety cover ZA 32 [p. 113]
- (Catalogue HT accessories)
- INI d6.5x44-Sn1.5-PNP-NO-M8x1

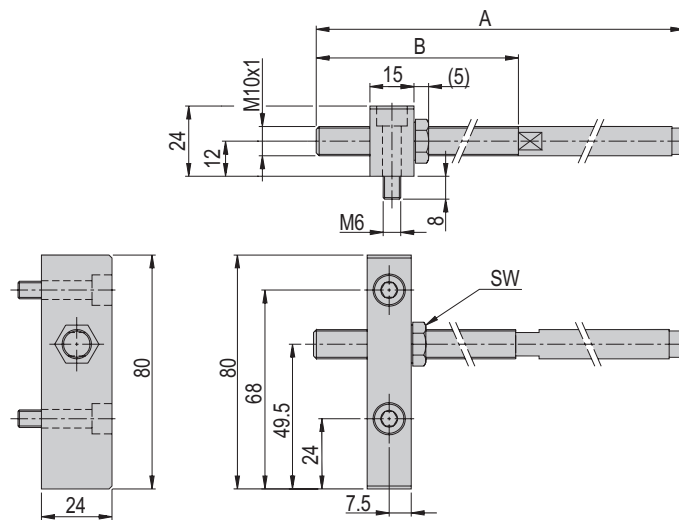
ZA 32

Should the ZA 32 be mounted up front to the LM 32 no extra safety cover is required. Mounted in the back depending on either one or both sides a «narrow» or «wide» cover is necessary. The covers have to be ordered seperately. The stop rods are needed for a continuous adjustability of the intermediate positions. It is recommended to always use the shortest possible stop rod.

| Type | ZA 32/125 | ZA 32/200 | ZA 32/275 |
|------|-----------|-----------|-----------|
| A | 125 mm | 200 mm | 275 mm |



| Front stop rod ZA 32 | ZA 32/125 | ZA 32/200 | ZA 32/275 |
|----------------------|--|-------------------------------------|------------------------|
| Order number | 11010462 | 11010463 | 11010464 |
| Net weight | 0.139 kg | 0.185 kg | 0.23 kg |
| Suitable for | LM 32/100 LM 32/200 LM 32/300 LM 32/400 | LM 32/200 LM 32/300 LM 32/400 | LM 32/300 LM 32/400 |
| A | 125 mm | 200 mm | 275 mm |
| B | 95 mm | 95 mm | 95 mm |
| SW | 13 mm | 13 mm | 13 mm |

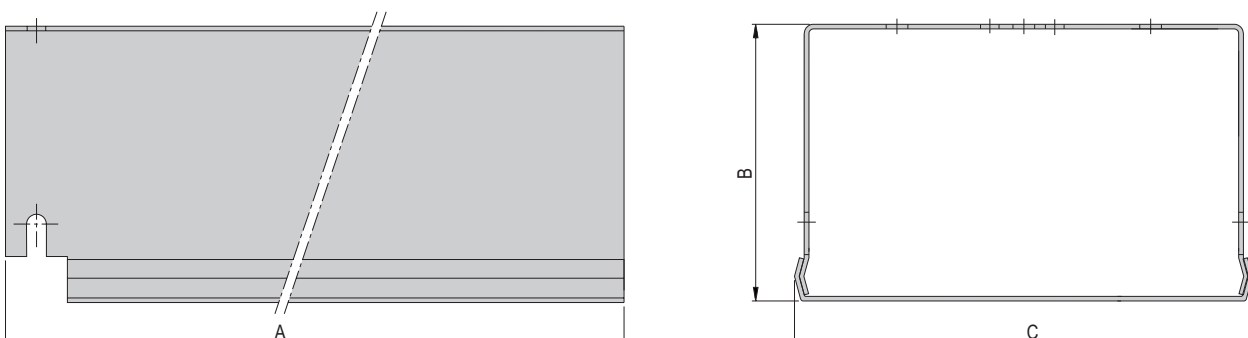


Included in the delivery

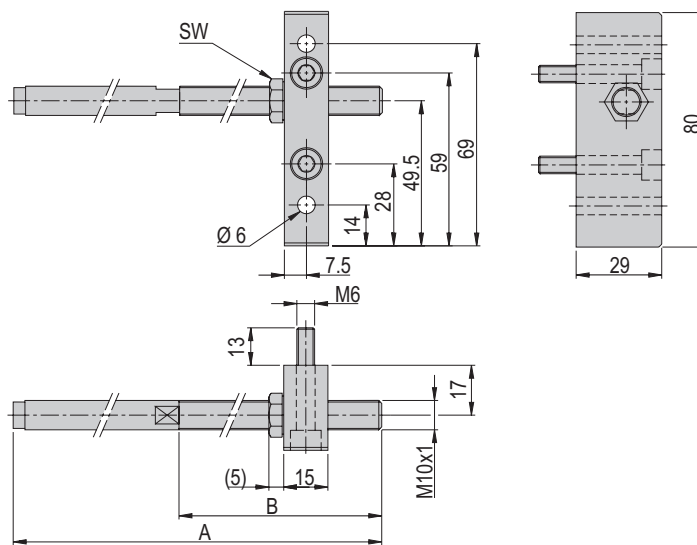
(Catalogue HT accessories)

- 2 Mounting screw M6x25
- 1x Nut M10x1 for ZA 32

| Wide safety cover ZA 32 | ZA 32/100 | ZA 32/200 | ZA 32/300 | ZA 32/400 |
|-------------------------|-----------------|-----------------|-----------------|-----------------|
| Order number | 11010473 | 11010472 | 11010471 | 11010470 |
| Net weight | 0.82 kg | 0.63 kg | 0.445 kg | 0.26 kg |
| Suitable for | LM 32/100 | LM 32/200 | LM 32/300 | LM 32/400 |
| A | 139 mm | 239 mm | 339 mm | 439 mm |
| B | 89 mm | 89 mm | 89 mm | 89 mm |
| C | 148 mm | 148 mm | 148 mm | 148 mm |



| Back stop rod ZA 32 | ZA 32/125 | ZA 32/200 | ZA 32/275 |
|---------------------|--|-------------------------------------|------------------------|
| Order number | 11009326 | 11009327 | 11009328 |
| Net weight | 0.15 kg | 0.196 kg | 0.241 kg |
| Suitable for | LM 32/100 LM 32/200 LM 32/300 LM 32/400 | LM 32/200 LM 32/300 LM 32/400 | LM 32/300 LM 32/400 |
| A | 125 mm | 200 mm | 275 mm |
| B | 95 mm | 95 mm | 95 mm |
| SW | 13 mm | 13 mm | 13 mm |



Included in the delivery
(Catalogue HT accessories)

- 2 Mounting screw M6x25
- 1x Nut M10x1 for ZA 32

| Narrow safety cover ZA 32 | ZA 32/100 | ZA 32/200 | ZA 32/300 | ZA 32/400 |
|---------------------------|-----------------|-----------------|-----------------|-----------------|
| Order number | 11010466 | 11010467 | 11010468 | 11010469 |
| Net weight | 0.22 kg | 0.375 kg | 0.53 kg | 0.69 kg |
| Suitable for | LM 32/100 | LM 32/200 | LM 32/300 | LM 32/400 |
| A | 139 mm | 239 mm | 339 mm | 439 mm |
| B | 89 mm | 89 mm | 89 mm | 89 mm |
| C | 108 mm | 108 mm | 108 mm | 108 mm |

