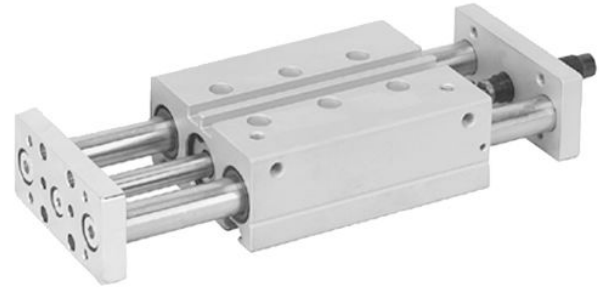


AVENTICS Series SH

The AVENTICS Series GPC is distinguished by high side load capacity and torsion protection. The drive and guide rods are robust and precise with high torque and transverse force absorption.



Technical data

| | |
|------------------------------------|--|
| Industry | Industrial |
| Piston Ø | 16 mm |
| Piston rod Ø | 8 mm |
| Stroke | 25 mm |
| Functional principle | Double-acting |
| Bearing type | ball bearing |
| Magnetic piston | with magnetic piston |
| Cushioning | hydraulic |
| Cushioning | non-adjustable |
| Min. working pressure | 2 bar |
| Max. working pressure | 10 bar |
| Min. ambient temperature | 0 °C |
| Min. ambient temperature | 32 °F |
| Max. ambient temperature | 65 °C |
| Max. ambient temperature | 149 °F |
| Min. oil content of compressed air | 0 mg/m ³ |
| Max. oil content of compressed air | 5 mg/m ³ |
| Easy2Combine | Easy2Combine capable with connection kit |
| Port | M5 |
| Retracting piston force | 95 N |
| Retracting piston force | 21.36 lbf |
| Extracting piston force | 127 N |
| Extracting piston force | 28.55 lbf |
| Max. speed | 0.5 m/s |
| Impact energy | 0.11 J |
| Medium | Compressed air |

Guide cylinders, Series GPC-E

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| | |
|--|---------|
| Max. particle size | 50 µm |
| Pressure for determining piston forces | 6,3 bar |
| Weight | 0.57 kg |

Material

| | |
|----------------------|----------------------|
| Housing material | Aluminum |
| Surface housing | anodized |
| Seal material | Polyurethane |
| Material front plate | Steel, chrome-plated |
| Surface front plate | galvanized |
| Material guide rods | Steel, chrome-plated |
| Surface guide rods | hardened |
| Bearing material | Steel, chrome-plated |
| Surface bearing | hardened |
| Material piston rod | Stainless Steel |
| Part No. | 0822061507 |

Technical information

Note: Hydraulic shock absorber on rear side are included in scope of delivery

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in <https://www.emerson.com/en-us/support>).

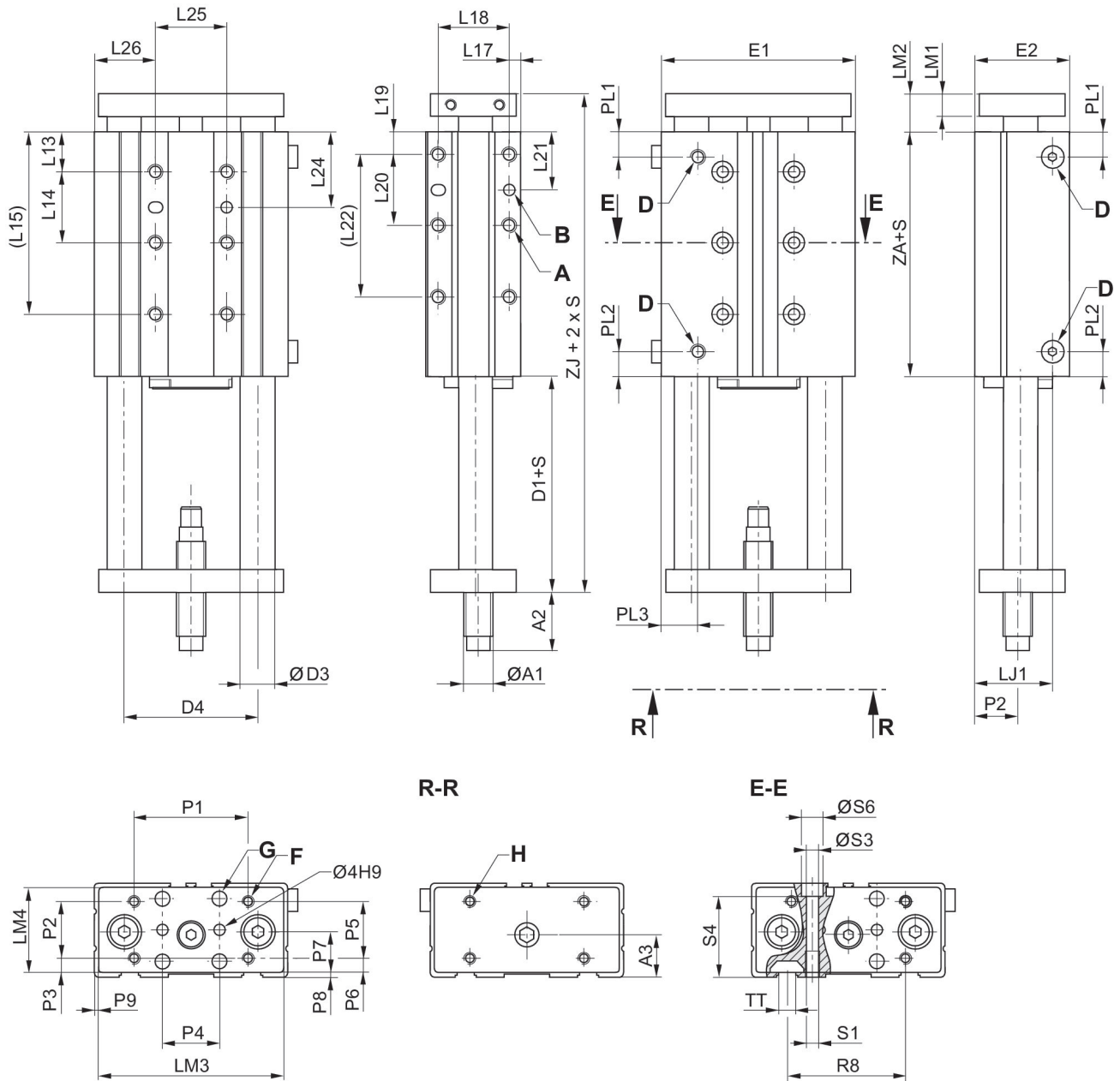
Guide cylinders, Series GPC-E

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Series SH

2024-03-18

Dimensions



S = stroke

| Piston Ø | A 1) | Ø A1 | A2 2) | A2 3) | A3 | B 1) | D | D1 | D3 |
|----------|-------|------|-------|-------|------|--------|----|------|----|
| 12 | M5x8 | M8 | 5 | 19 | 13.5 | 4 H7x4 | M5 | 19.2 | 8 |
| 16 | M5x8 | M10 | 5 | 29 | 14.8 | 4 H7x4 | M5 | 25.8 | 10 |
| 20 | M6x10 | M10 | 5 | 28 | 18.5 | 4 H7x4 | M5 | 26.8 | 10 |

| Piston Ø | D4 | E1 | E2 | F | G | H | L 4) | L13 | L14 |
|----------|----|----|------|----|-----|----|------|------|-----|
| 12 | 40 | 58 | 30.5 | M4 | 4.5 | M4 | 14 | 14.5 | 22 |
| 16 | 47 | 68 | 33 | M4 | 5.5 | M4 | 24 | 14 | 25 |

Guide cylinders, Series GPC-E

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Series SH

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| Piston Ø | D4 | E1 | E2 | F | G | H | L 4) | L13 | L14 |
|----------|----|----|----|----|-----|----|------|-----|-----|
| 20 | 54 | 80 | 36 | M5 | 5.5 | M5 | 23 | 15 | 24 |

| Piston Ø | L15 S=50-150 | L17 | L18 | L19 | L20 | L21 | L22 S=50-150 | L24 | L25 |
|----------|--------------|-----|-----|-----|-----|------|--------------|------|-----|
| 12 | 58.5 | 4 | 22 | 8 | 20 | 18 | 48 | 25.5 | 20 |
| 16 | 64 | 4 | 25 | 8 | 25 | 20.5 | 58 | 26.5 | 25 |
| 20 | 63 | 4.5 | 24 | 8 | 30 | 23 | 68 | 27 | 30 |

| Piston Ø | L26 | LJ1 | LM1 | LM2 | LM3 | LM4 | P1 | P2 | P3 |
|----------|------|------|-----|------|-----|-----|----|----|-----|
| 12 | 19 | 24.8 | 8 | 12.7 | 55 | 27 | 40 | 20 | 3.5 |
| 16 | 21.5 | 27 | 8 | 13.5 | 65 | 30 | 40 | 20 | 5 |
| 20 | 25 | 26.5 | 10 | 15.5 | 77 | 33 | 50 | 25 | 4 |

| Piston Ø | P4 | P5 | P6 | P7 | P8 | P9 | PL1 | PL2 | PL3 |
|----------|----|----|----|------|-----|-----|-----|-----|------|
| 12 | - | - | - | - | 1.5 | 1.5 | 8.5 | 8.5 | 11.5 |
| 16 | 20 | 22 | 4 | 15 | 1.5 | 1.5 | 8.8 | 8.8 | 13 |
| 20 | 25 | 25 | 4 | 16.5 | 1.5 | 1.5 | 10 | 10 | 15 |

| Piston Ø | R8 | S1 1) | S3 | S4 | S6 | TT | ZA | ZJ |
|----------|----|-------|-----|------|-----|----|------|------|
| 12 | - | M5x8 | 4.2 | 20.3 | 7.6 | - | 34.4 | 66.3 |
| 16 | 43 | M5x8 | 4.2 | 28.5 | 7.6 | N6 | 36 | 75.3 |
| 20 | 50 | M6x10 | 5.2 | 30.5 | 9.5 | N6 | 36 | 78.3 |

S = stroke

1) Dimension x depth

2) Min.

3) Max.

4) Adjustment length L = A2 max. ... A2 min.

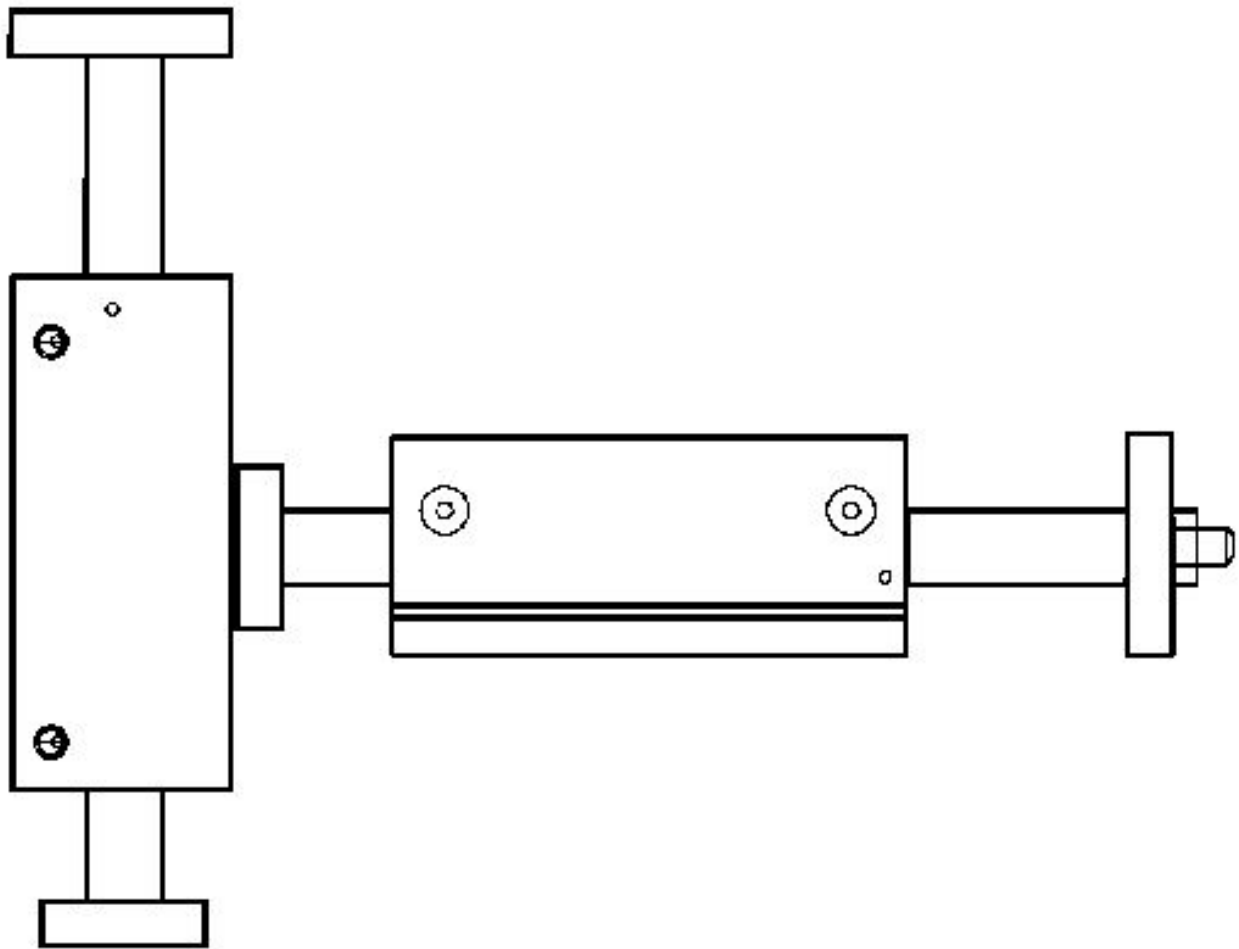
Guide cylinders, Series GPC-E

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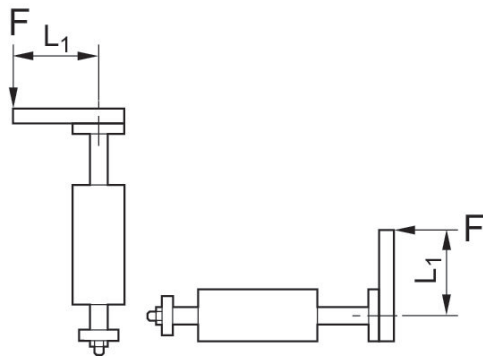
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GPC combinations

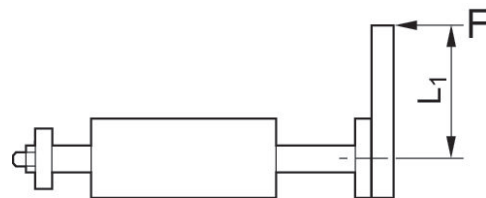


The GPC-E can be directly mounted on the front plate of next bigger standard GPC or GPC-E in radial direction.

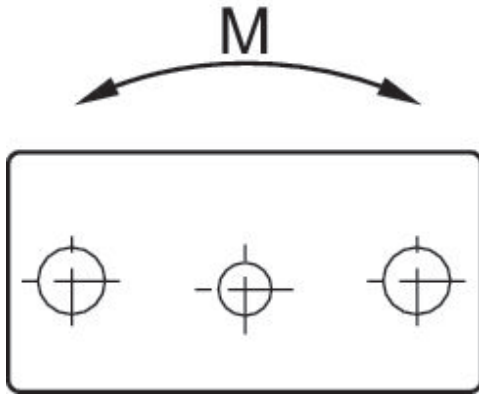
Permissible lever arm length L_1 at 6 bar with dynamic load



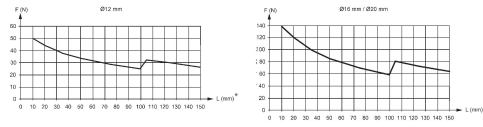
Permissible lever arm length L_1 at 6 bar with static load



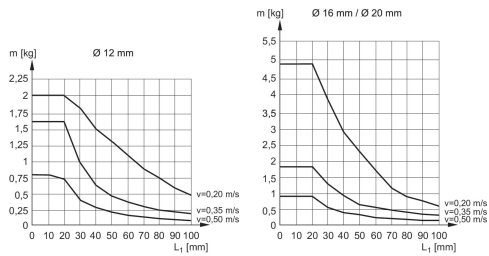
Permissible static moment M [Nm]



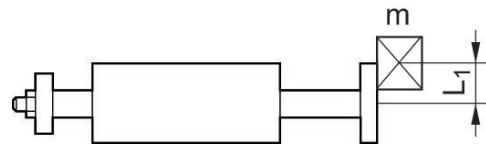
Permissible static side force F [N]



Permissible dynamic load m [kg]



Permissible dynamic load m [kg]



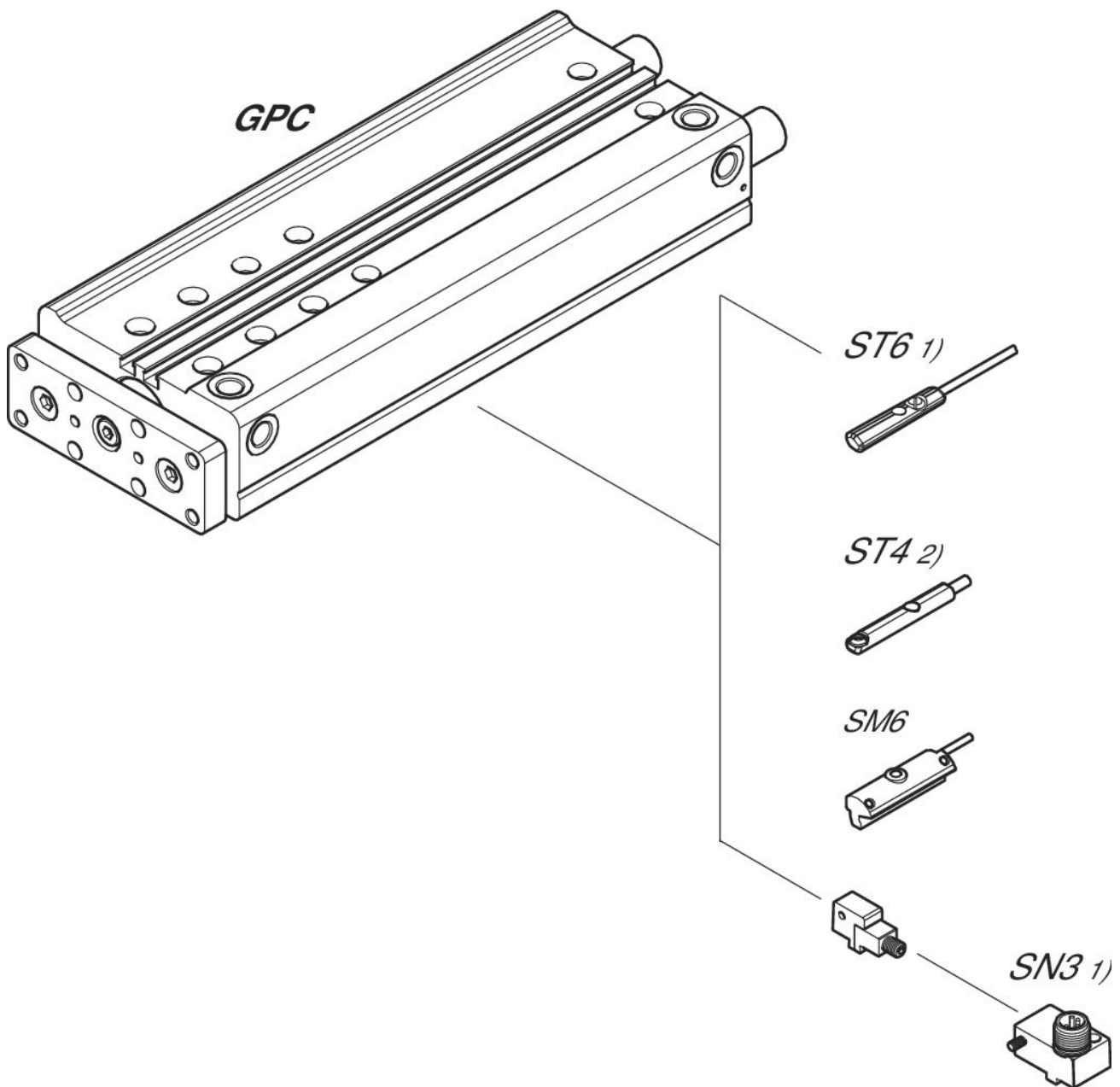
Guide cylinders, Series GPC-E

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Series SH

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Overview drawing



1) $\leq \text{Ø}12$ mm (GPC-BV, GPC-E, GPC-TL)

2) Only for $\text{Ø}10$ mm (GPC-BV) and all Ø (GPC-ST)

NOTE: This overview drawing is only for orientation to indicate where the various accessory parts can be fastened to the cylinder. The illustration has been simplified for this purpose. It is thus not possible to derive the dimensions from this overview.