

Metering device

QSL



Description

QSL metering devices are designed for 300 bar pressure. As a result, NLGI 2 greases can be pumped at temperatures below zero without problems. All metering devices operate independently of each other. This means that in the event of a blockage or fault of one metering device, all other metering devices will continue to supply lubricant. A control pin on top shows proper function of each metring device.

Features and benefits

- Suitable for use with manifolds from 1 to 6 ports to match number of lube points; must be ordered separately
- Corrosion-resistant, black-cromated or nickel-plated surface
- Each indicator stem permits visual check of operation
- Can be removed easily for inspection or replacement
- Controlled via main line

Applications

- Renewable energy
- Construction machinery
- Mining and mineral processing
- Compact and medium-sized machines and industrial applications
- Commercial vehicles

Technical data

|                       |                                                                    |
|-----------------------|--------------------------------------------------------------------|
| Function principle    | metering device                                                    |
| Outlets               | 1 to 6                                                             |
| Metering quantity     | 0,05 to 0,4 cm <sup>3</sup> , <i>0.003 to 0.024 in<sup>3</sup></i> |
| Lubricant             | grease NLGI 0, 1, 2                                                |
| Operating temperature | −40 to +70 °C; −40 to +158 °F                                      |
| Operating pressure    | 140 to 300 bar, <i>2 030 to 4 350 psi</i>                          |
| Relief pressure       | ≤ 60 bar, ≤ <i>870 psi</i>                                         |
| Materials             | steel, black cromated, polyurethane                                |
| Connection main line  | G 3/8 for steel pipe<br>16 × 2 mm; 0.63 × 0.08 in                  |
| Connection outlet     | G 1/8 for tubes/hoses<br>4,1 × 2,3 mm; <i>0.16 × 0.09 in</i>       |
| Lubricant point       | solderless pipe connection, DIN 3862<br>or SKF quick connector     |
| Dimensions            | length: max. 160 mm, 6.3 in<br>Ø 28 mm; <i>1.1 in</i>              |
| Mounting position     | any                                                                |



NOTE

Further technical information, technical drawings, accessories, spare parts or product function descriptions available on [SKF.com/lubrication](https://www.skf.com/lubrication):  
**12735 EN**

Metering device

QSL

QSL order numbers

| Order number <sup>1)</sup> | Designation Injectors | Metering quantity per stroke |                 | Ring color |
|----------------------------|-----------------------|------------------------------|-----------------|------------|
|                            |                       | cm <sup>3</sup>              | in <sup>3</sup> |            |
| 554-32810-1                | QSL 0,05              | 0,05                         | <i>0.00305</i>  | blue       |
| 554-32811-1                | QSL 0,1               | 0,10                         | <i>0.00610</i>  | white      |
| 554-32812-1                | QSL 0,2               | 0,20                         | <i>0.01220</i>  | yellow     |
| 554-32813-1                | QSL 0,3               | 0,30                         | <i>0.01830</i>  | red        |
| 554-32814-1                | QSL 0,4               | 0,40                         | <i>0.02440</i>  | green      |

<sup>1)</sup> In the case of backpressures in lubrication point lines of ≥ 100 bar or if several injectors are combined to one lubrication point, use check valves, order number 223-12289-7.

Accessory

Manifold, check valves and closure kit



Description

For QLS metering devices, manifolds utilized are for 1 to 6 push-in points tightened by a hollow screw with thread G 3/8 for O-ring sealing. Normal profile design manifolds are available in steel. The main line connection G 3/8 is for steel pipe 16 × 2 mm (*0.63 × 0.08 in*). The lubrication connection is for plastic tube 4,1 × 2,3 mm (*0.16 × 0.09 in*).

Manifolds<sup>1)</sup>

| Order number | Designation         | Dimensions fixing hole |             | length, total |              |
|--------------|---------------------|------------------------|-------------|---------------|--------------|
|              |                     | mm                     | in          | mm            | in           |
| 454-71505-1  | divider bar, 2-fold | 74                     | <i>2.91</i> | 130           | <i>5.11</i>  |
| 454-71506-1  | divider bar, 3-fold | 42                     | <i>1.65</i> | 130           | <i>5.11</i>  |
| 454-71507-1  | divider bar, 4-fold | 84                     | <i>3.3</i>  | 172           | <i>6.77</i>  |
| 454-71508-1  | divider bar, 5-fold | 126                    | <i>4.96</i> | 214           | <i>8.42</i>  |
| 454-71509-1  | divider bar, 6-fold | 84 <sup>1)</sup>       | <i>3.3</i>  | 256           | <i>10.07</i> |

<sup>1)</sup> Instead of the planned injectors a divider bar can also be equipped with a closure kit 5, order number: 554-34387-1

Check valves and closure kit

| Order number | Designation                                              |
|--------------|----------------------------------------------------------|
| 223-12289-7  | check valves for connection at lubrication point outlets |
| 554-34387-1  | closure kit 5                                            |

Metering device

VR



Description

Product series VR are 1- to 12-port prelubrication metering devices for single-line, centralized lubrication systems for fluid grease and grease up to NLGI 2. These metering devices are characterized by an innovative, compact and sturdy design with SKF Quick Connector systems.

Features and benefits

- Innovative, extremely compact design
- Optional metering devices for 1 to 12 ports to match number of lubrication points
- Metering nipples with indicator pin for visual monitoring of each lubrication point
- Optional push-in type or screw-in type fittings for feed line or main line connections are selectable
- Easy metering adjustment by replacing the metering nipples
- Black anodized surface for optimized corrosion protection
- Suitable for corrosivity category C3 and C5 per DIN EN ISO 12944 and certified by Germanischer Lloyd
- High functional reliability when using stiff greases at low working temperatures

Applications

- Onshore and offshore wind energy systems
- Construction machinery
- Steel industry
- Heavy industry
- General mechanical engineering applications



Technical data

|                       |                                                                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Function principle    | block metering device                                                                                                                                                        |
| Outlets               | 1 to 12                                                                                                                                                                      |
| Metering quantity     | non-adjustable: 0,1 to 1,3 cm <sup>3</sup> /min<br>0.006 to 0.079 in <sup>3</sup> /min<br>adjustable: 0,1 to 1,1 cm <sup>3</sup> /min<br>0.006 to 0.067 in <sup>3</sup> /min |
| Lubricant             | fluid greases and grease NLGI 0, 1, 2                                                                                                                                        |
| Operating temperature | –25 to +80 °C; –13 to +176 °F                                                                                                                                                |
| Operating pressure    | 100 to 315 bar; 1 450 to 4 570 psi                                                                                                                                           |
| Relief pressure       | 30 or 70 bar; 435 or 1 015 psi                                                                                                                                               |
| Materials             | anodized aluminum, stainless steel, FKM (FPM)                                                                                                                                |
| Connection main line  | G 1/4 for pipes 4 or 6 mm<br>0.16 or 0.24 in                                                                                                                                 |
| Connection outlet     | G 1/8 for pipes 4 or 6 mm,<br>0.16 or 0.24 in                                                                                                                                |
| Lubricant point       | solderless pipe connection (DIN 3862)                                                                                                                                        |
| Dimensions            | depending on model:<br>min. 97 × 130 × 54 mm;<br>max. 281 × 121 × 119 mm;<br>min. 3.82 × 5.12 × 2.13 in<br>max. 11.06 × 4.76 × 4.68 in                                       |
| Mounting position     | any                                                                                                                                                                          |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions available on [SKF.com/lubrication](https://www.skf.com/lubrication):  
**1-5001-EN, 951-230-007**

3D  
[skf-lubrication.partcommunity.com/3d-cad-models](https://skf-lubrication.partcommunity.com/3d-cad-models)

Metering device

VR

Identification code

V R

Product series

Number of metering points

|        |         |
|--------|---------|
| 01 = 1 | 07 = 7  |
| 02 = 2 | 08 = 8  |
| 03 = 3 | 09 = 9  |
| 04 = 4 | 10 = 10 |
| 05 = 5 | 11 = 11 |
| 06 = 6 | 12 = 12 |

Design for fluid grease and grease

|                                    |       |       |    |    |    |    |       |       |                   |                   |
|------------------------------------|-------|-------|----|----|----|----|-------|-------|-------------------|-------------------|
| Design code                        | A     | B     | C  | D  | E  | F  | G     | H     | N                 | P                 |
| Max. relief pressure [bar]         | 30    | 70    | 30 | 70 | 30 | 70 | 30    | 70    | 30                | 70                |
| Secondary line connection          | G 1/8 | G 1/8 | VS | VS | VS | VS | G 1/8 | G 1/8 | SRV <sup>1)</sup> | SRV <sup>1)</sup> |
| Secondary line Ø [mm]              | –     | –     | 4  | 4  | 6  | 6  | –     | –     | 6                 | 6                 |
| Corrosivity category <sup>2)</sup> | C3    | C3    | C3 | C3 | C3 | C3 | C5-M  | C5-M  | C5-M              | C5-M              |

<sup>1)</sup> SRV = cutting-sleeve screw union, see page 2

<sup>2)</sup> Corrosivity categories per DIN EN ISO 12944 (certified by Germanischer Lloyd)

Metering

|                             |                 |                 |                 |                 |                 |                 |                 |                 |        |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|
| Metering quantity letter    | A <sup>1)</sup> | B <sup>1)</sup> | D <sup>1)</sup> | F <sup>1)</sup> | H <sup>1)</sup> | J <sup>1)</sup> | M <sup>1)</sup> | R <sup>2)</sup> | X      |
| Metering [cm <sup>3</sup> ] | 0,1             | 0,2             | 0,4             | 0,6             | 0,8             | 1               | 1,3             | 0,1–1,1         | Closed |

<sup>1)</sup> Fixed metering with indicator pin for visual function monitoring

<sup>2)</sup> Adjustable metering with indicator pin for visual function monitoring

Order example

**VR06FFFFFFF00000Z**

- Single-line distributor, 6-port
- Relief pressure max. 70 bar
- Lubrication point line connection using SKF plug connector for pipe Ø 6 mm
- Metering quantity 1–6 = 0,6 cm
- Without fitting for main line connection (G 1/4 thread)

Fittings for main line connection

| Left fitting                 | Right fitting                | Ø Main line [mm] | Code                 |
|------------------------------|------------------------------|------------------|----------------------|
| Cutting-sleeve screw union * | Cutting-sleeve screw union * | 8<br>10          | <b>A</b><br><b>G</b> |
| Cutting-sleeve screw union * | Closed                       | 8<br>10          | <b>B</b><br><b>H</b> |
| Closed                       | Cutting-sleeve screw union   | 8<br>10          | <b>C</b><br><b>J</b> |
| E0-2 screw union             | E0-2 screw union             | 8<br>10          | <b>D</b><br><b>K</b> |
| E0-2 screw union             | Closed                       | 8<br>10          | <b>E</b><br><b>L</b> |
| Closed                       | E0-2 screw union             | 8<br>10          | <b>F</b><br><b>M</b> |
| G1/4                         | G1/4                         | –                | <b>Z</b>             |