

### Brake Chambers with Hydraulic Master Cylinder

#### Function

This range of **Brake Chambers with Master Cylinder** is used to apply the service brakes on axles fitted with hydraulic brakes. The chamber applies force to a hydraulic master cylinder which supplies hydraulic pressure to the brakes.

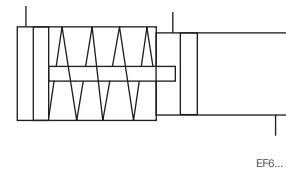
Some Brake Chambers with Master Cylinder are supplied with the hydraulic fluid reservoir attached. This fluid reservoir incorporates a float switch. Some brake chambers are also fitted with a stroke switch.



#### Technical Features

|                              |                        |
|------------------------------|------------------------|
| Maximum Operating Pressure:  | see Performance Charts |
| Operating Temperature Range: | -40 °C to +80 °C       |
| Air port:                    | M16 x 1.5              |
| Hydraulic Inlet port:        | M18 x 1.5              |
| Hydraulic Delivery port:     | M12 x 1.5              |
| Hydraulic Fluid:             | see table below        |
| Stroke Switch rating:        | 12 or 24 V, 3 W        |
| Weight:                      | See table              |

#### Standard Symbol as DIN ISO 1219



#### Range Overview

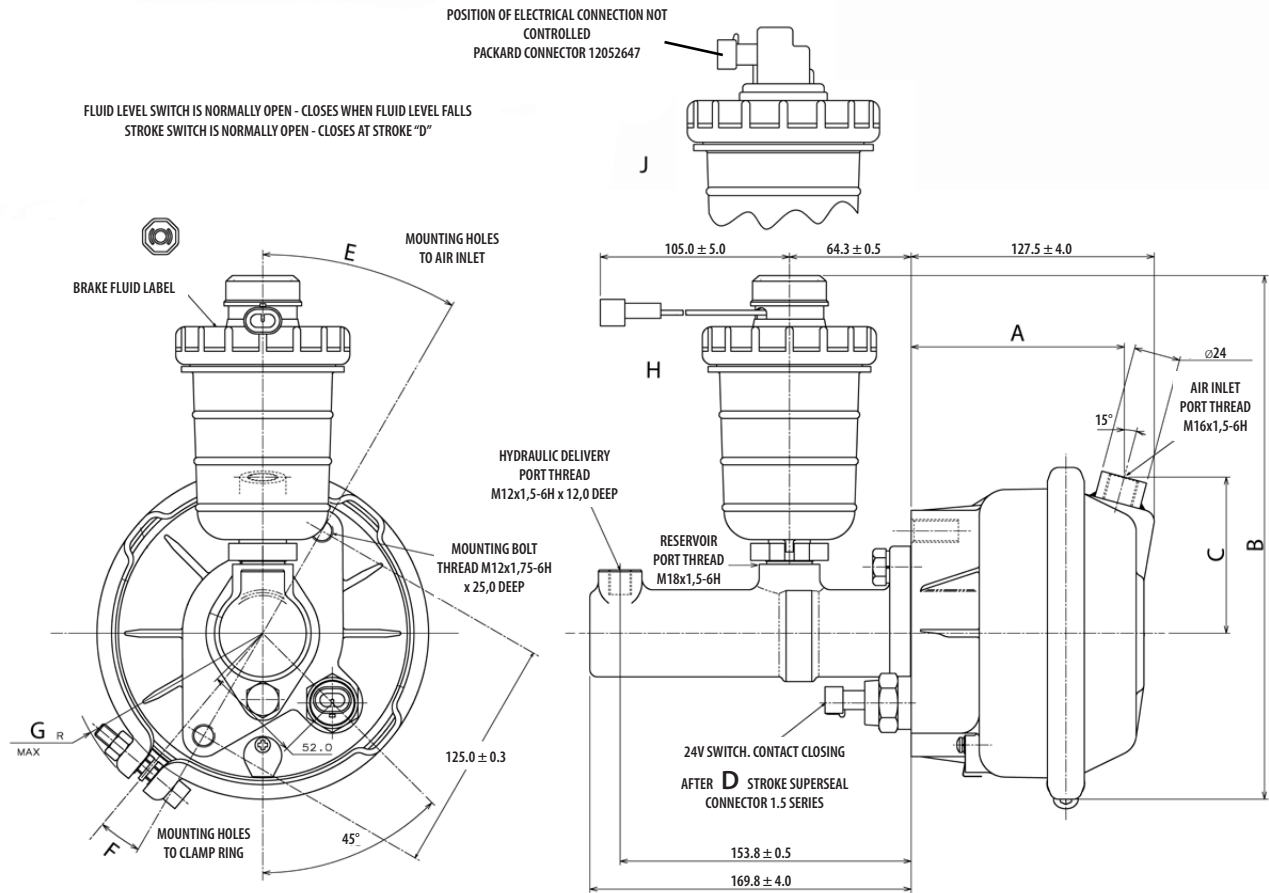
| Part No. | Brake Chamber | Chamber Type Size | Master Cylinder | Master Cylinder dia. [mm] | Hydraulic Fluid Displacement [cm <sup>3</sup> ] | Hydraulic Fluid | Hydraulic Fluid Reservoir | Stroke Switch | Weight approx. [kg] |
|----------|---------------|-------------------|-----------------|---------------------------|---|-----------------|---------------------------|---------------|---------------------|
| EF620AK  | 1194310       | 20                | MC20            | 33.34                     | 43.9  | DOT 3           | No                        | Yes           | 4.50                |
| EF620AY  | 1194310       | 20                | MC19            | 31.75                     | 39.8  | DOT 4           | Yes                       | Yes           | 4.79                |
| K054278  | 1194495       | 24                | MC26            | 28.57                     | 32.5  | DOT 5           | Yes                       | No            | 4.64                |
| EF624AK  | 1194311       | 24                | MC20            | 33.34                     | 43.9  | DOT 3<br>DOT 4  | No                        | Yes           | 4.79                |
| EF624DY  | 1194495       | 24                | MC18            | 28.57                     | 32.5  |                 | Yes                       | No            | 4.37                |
| K011012  | EF630A        | 30                | MC20            | 33.34                     | 43.9  | DOT 4           | Yes                       | No            | 6.29                |
| K156466* | 1194313       | 24                | MC20            | 33.34                     | 43.9  |                 | Yes                       | No            | 4.50                |

\* The part number should carry suffix "N##" which defines the packaging requirements of different market sectors, e.g. N00, N50. Example "N00" which defines that it is supplied without packaging.

Other sizes and other fluid compatibility (e.g. mineral oil) are available.

### Brake Chambers with Hydraulic Master Cylinder

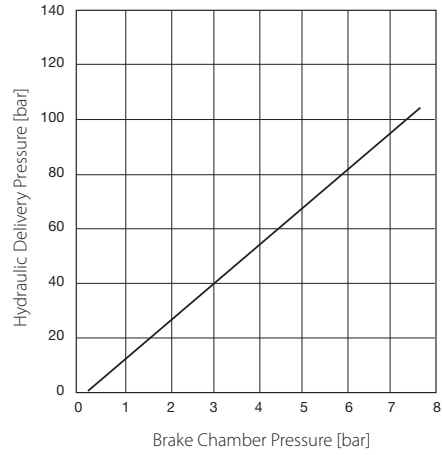
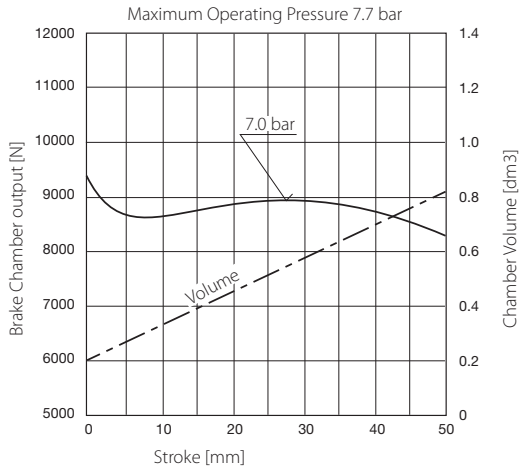
#### Dimensions



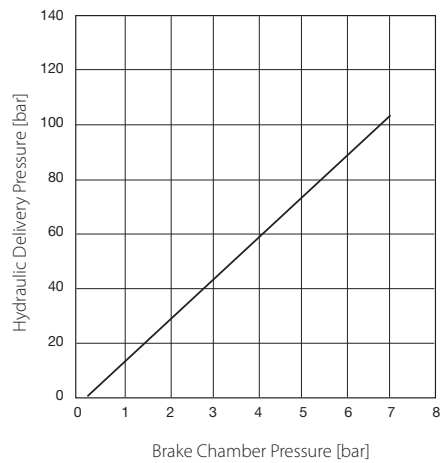
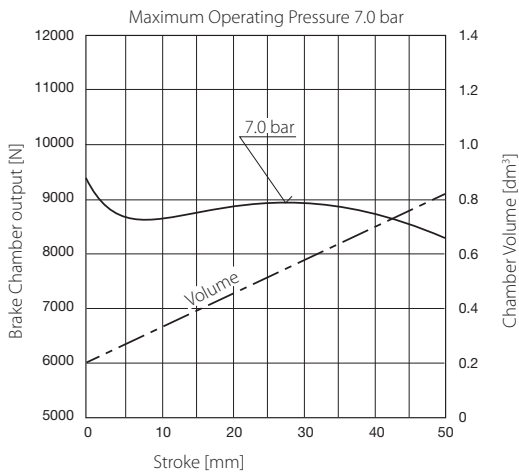
| Part No. | A [mm] | B [mm] | C [mm] | D [mm]  | E [°] | F [°] | G [mm] | Fluid reservoir |
|----------|--------|--------|--------|---------|-------|-------|--------|-----------------|
| EF620AK  | 112.0  | -      | 83.5   | 39 - 42 | 30    | 10    | 110.0  | -               |
| EF620AY  | 112.0  | 279.7  | 83.5   | 44 - 47 | 30    | 10    | 110.0  | H               |
| K054278  | 112.0  | 283.7  | 87.0   | -       | 210   | 205   | 115.0  | H               |
| EF624AK  | 112.0  | -      | 87.0   | 44 - 47 | 30    | 10    | 115.0  | -               |
| EF624DY  | 112.0  | 290.7  | 87.0   | -       | 210   | 205   | 115.0  | J               |
| K011012  | 109.0  | 303.7  | 101.0  | -       | 210   | 210   | 125.0  | J               |
| K156466  | 112.0  | 286.0  | 87.0   | -       | 210   | 330   | 115.0  | J               |

#### Performance Charts

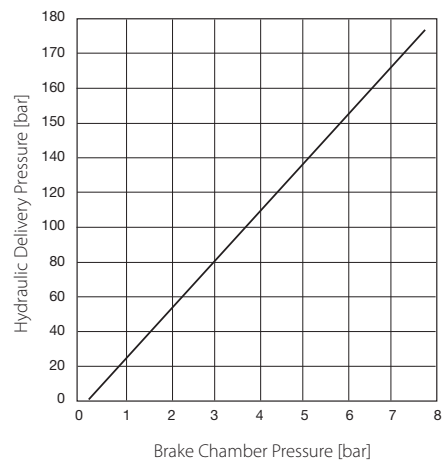
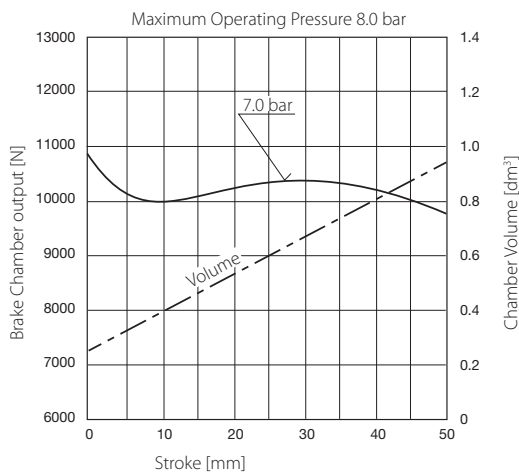
##### EF620AK



##### EF620AY

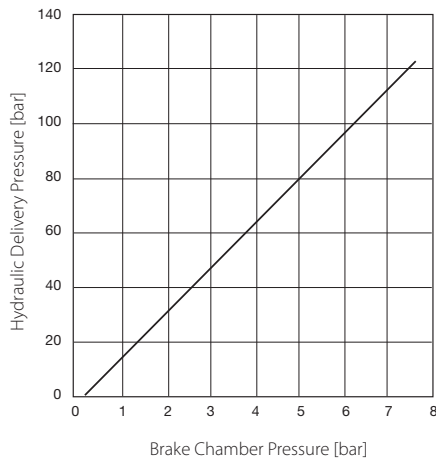
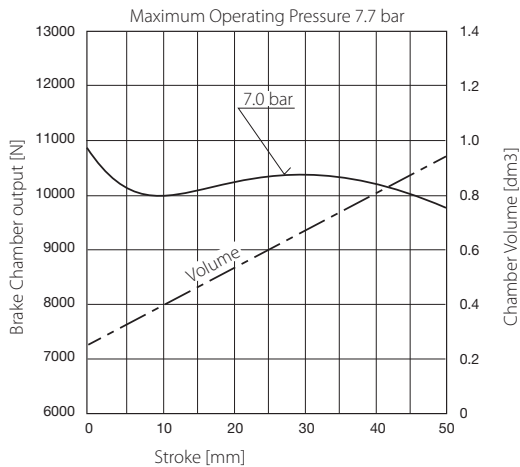


##### K054278

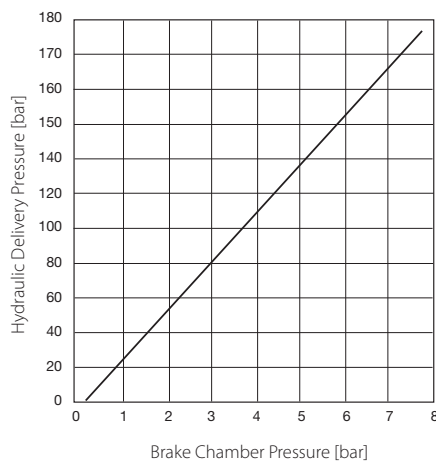
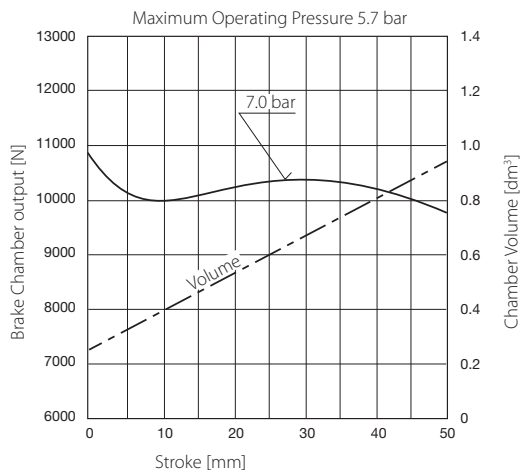


#### Performance Charts

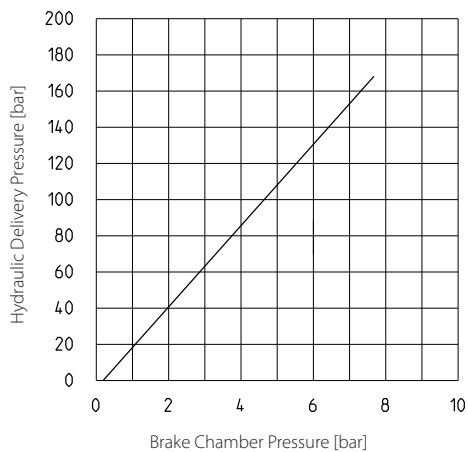
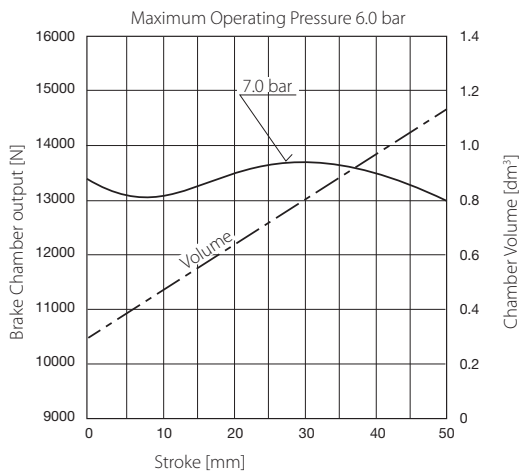
##### EF624AK, K156466



##### EF624DY



##### K011012



## Installation and Mounting instructions

For reliable and safe mounting of brake chambers, please note the following points:

### General

- Use suitable mounting bracket with adequate stability (material thickness).
- Hole dimensions according to DIN.
- Plain mounting face, only primed (maximum thickness 0.1mm), not finish painted.
- Direct contact of the full surface of the brake chamber mounting face must be made with the mounting bracket. No spacing washers, adapter plates or other elements are allowed.
- General requirements of mechanical engineering concerning progressive tightening must be followed.
- If a stroke switch is not fitted ensure that the hole is suitably plugged.
- For further information please contact Knorr-Bremse or the master cylinder manufacturer or vehicle manufacturer.

*Special Note:*

If the actuator is supplied with the drain holes plugged, remove lowest plug (as viewed when the actuator is installed).

### Servicing

The hydraulic master cylinder and brake chamber are available as separate items.

The diaphragm is replaceable in most brake chambers and the fluid reservoir is also replaceable - for details of service parts see the 'Product Search' area on the website: [www.Knorr-BremseCVS.com](http://www.Knorr-BremseCVS.com).

#### Revision Details

|          |               |                           |
|----------|---------------|---------------------------|
| Rev. 002 | December 2018 | New Layout and correction |
|          |               |                           |
|          |               |                           |



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#### Note

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