2-way proportional throttle valve for block installation

Types FES; FESE

Sizes 25 to 63
Component series 3X
Maximum operating pressure 315 bar
Maximum flow 1800 l/min at $\Delta p = 10$ bar

Table of contents

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Features</td>
<td>1</td>
</tr>
<tr>
<td>Ordering code</td>
<td>2</td>
</tr>
<tr>
<td>Standard types</td>
<td>2</td>
</tr>
<tr>
<td>Symbols</td>
<td>3</td>
</tr>
<tr>
<td>Function, section</td>
<td>4, 5</td>
</tr>
<tr>
<td>Technical data</td>
<td>5, 8</td>
</tr>
<tr>
<td>Control electronics</td>
<td>6, 7</td>
</tr>
<tr>
<td>Electrical connection, cable socket</td>
<td>9 to 14</td>
</tr>
<tr>
<td>Characteristic curves</td>
<td>14, 15</td>
</tr>
<tr>
<td>Unit dimensions</td>
<td>16</td>
</tr>
</tbody>
</table>

Features

- Pilot operated 2-way proportional throttle valve for block installation
- Installation dimensions to DIN ISO 7368
- Orifice spool electrically closed-loop position controlled
- Flow in both directions
- In the event of a power failure, cable break or withdrawal of the enable, the orifice spool automatically moves to the seated position and blocks the flow in both directions
- Can be used in conjunction with a pressure compensator for pressure-compensated flow control
- Type FES for external control electronics (separate order), see page 5
- Type FESE: completely matched unit with integrated electronics (OBE), optionally available with voltage or current interface
Ordering code

FES | C | A×3X/ | *
--- | --- | --- | ---
For external control electronics = No code
With integrated electronics (OBE) = E

Size 25 = 25
Size 32 = 32
Size 40 = 40
Size 50 = 50
Size 63 = 63

Kit = C

Direction of flow
A to B (X connected to A) = A
B to A (X connected to B) = B

Component series 30 to 39 = 3X
(30 to 39: unchanged installation and connection dimensions)

Flow characteristics *linear* 1)
Size 25 up to 315 l/min = 315L
Size 32 up to 450 l/min = 450L
Size 40 up to 670 l/min = 670L
Size 50 up to 1400 l/min = 1400L
Size 63 up to 1800 l/min = 1800L

1) Nominal flow in L/min at Δp 10 bar between ports A and B (see also hydraulic technical data on page 4)

Standard types

<table>
<thead>
<tr>
<th>Type</th>
<th>Material no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FESE 25 CA-3X/315LK0B1M</td>
<td>R900973604</td>
</tr>
<tr>
<td>FESE 32 CA-3X/450LK0B1M</td>
<td>R900973605</td>
</tr>
<tr>
<td>FESE 40 CA-3X/670LK0B1M</td>
<td>R900973607</td>
</tr>
<tr>
<td>FESE 50 CA-3X/1400LK0B1M</td>
<td>R900954504</td>
</tr>
<tr>
<td>FESE 63 CA-3X/1800LK0B1M</td>
<td>R900954505</td>
</tr>
</tbody>
</table>

Symbols

Simplified
FES.. CA-3X/...

FESE.. CA-3X/...

Direction of flow:
A to B (X connected with A)
B to A (X connected with B)

Detailed
(example of FES)
FES.. CA-3X/...

A = service port
B = service port
X = pilot oil supply
Y = pilot oil drain

Further details in clear text

Seal material
M = NBR seals, suitable for mineral oil (HL, HLP) to DIN 51524
V = FKM seals

Electronics interface
(see page 7)
B1 = Command value input 0 to 10 V/actual value output 0 to –10 V
G1 = Command value input 4 to 20 mA/actual value output 4 to 20 mA
No code = For FES for external control electronics

Electrical connection
For FES:
K4 = Without cable sockets, with component plug to DIN EN 175301-803 for proportional solenoid and GSA20 made by Hirschmann for position transducer
Cable sockets – separate order, see page 6

For FESE:
K0 = Without cable socket, with component plug to DIN 43651, cable socket – separate order, see page 7