## 3-way Control Valve type G3FMT-ULLM Ultra Low Leakage (Middle)

Nodular cast iron, PN10, DN100 - 250 mm

### 0-2.6.17-A

Page 1 of 4



### **TECHNICAL DATA**

| Materials:<br>- Valve body, slide                       | Nodular cast iron<br>FN-GIS-400-15                     |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| - Sealing element and O-r                               | 2.1 0.50 1.00 1.5                                      |  |  |  |  |  |  |
| Flow characteristic                                     | Almost linear  |  |  |  |  |  |  |
| Leakage rate  | ANSI class IV/EN 1349<br>< 0.01%                       |  |  |  |  |  |  |
| Flanges<br>- Option                                     | EN 1092-2 PN 10<br>JIS B 2210 5K/10K<br>ANSI class 150 |  |  |  |  |  |  |
| Max. pressure Δp, againstwhich the valve can close5 bar |  |  |  |  |  |  |  |
| Nominal pressure  | PN 10  |  |  |  |  |  |  |
| Design temperature                                      | 120°C  |  |  |  |  |  |  |
| Optional temperature                                    | 150°C  |  |  |  |  |  |  |

### **APPLICATIONS**

Control valve type G3FMT-ULLM is a three-way control valve with a slide for quarter turn operation designed for regulating of fresh water, lubricating oil and other liquid media. The valves are designed for use in conjunction with industrial processes, district heating and marine installations with large water or lubricating oil volumes:

- Engine Jacket Cooling Water System
- Lubricating Oil Cooling
- Central Cooling Water System, etc.

The valves are designed for use in conjunction with valve motor type CAR with handle for manual operation or for use in conjunction with a pneumatic actuator type VT.

### DESIGN

The valve body and the valve slide are made of nodular cast iron. The valve flanges are drilled according to EN 1092-2 - option JIS B 2210 5K/10K and ANSI class 150.

### FUNCTION

The slide is firmly connected with the motor spindle. When the slide is in the one outer position by turning the spindle, connection A-AB is fully open and connection B-AB is fully closed. In the other outer position connection A-AB is fully closed and connection B-AB is fully open.

In the intermediate positions the opening degrees change proportionally. The valve has a small tolerance between body and slide.

PTFE sealing element and O-ring are mounted in the slider groove to minimize leakage.

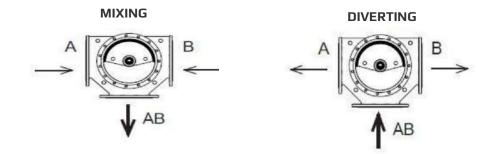
This section to be read together with sketches page 2 this data sheet.

#### **FEATURES**

- Simple design secures reliable controls and reduces costly downtime
  - Ultra Low Leakage rate secures energy savings Best in class
- Most compact valve on the market
- Full flexibility on port orientation



### PORT NUMBERING: AB-MIDDLE



### MOUNTING

The valve connections are marked A, B and AB. The slide is operating between A and B. Check slide position before installation in the pipe. The slide position is marked on the top of the shaft. The valves can be installed with vertical as well as horizontal spindles. The valves must be mounted in a way that the valve actuator will be exposed to a minimum of moisture and unnecessary vibrations.

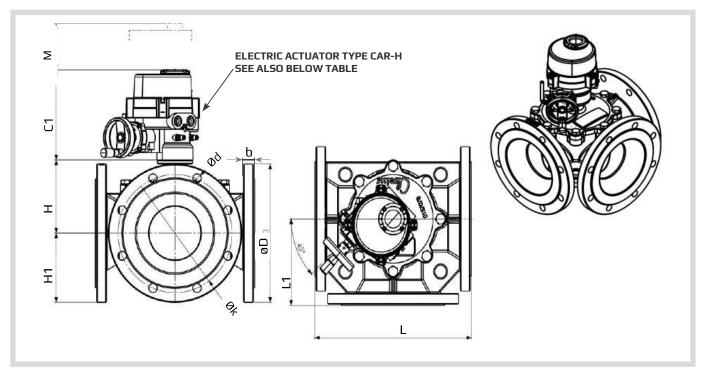
# 3-way Control Valve type G3FMT- ULLM Ultra Low Leakage (Middle)

Nodular cast iron, PN10, DN100 - 250 mm

### 0-2.6.17-A

Page 3 of 4

### **DIMENSION SKETCH**



### SPECIFICATIONS - TABLE 1 (read this together with table on page 4)

| Туре                 | <b>L</b><br>(mm) | <b>L1</b><br>(mm) | <b>H</b><br>(mm) | <b>H1</b><br>(mm) | <b>b</b><br>(mm) | <b>C1</b><br>(mm) | M<br>(mm) | Electric Actuator<br>Type CAR-H |
|----------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|-----------|---------------------------------|
| 100 G3FMT-ULLM (*HF) | 296              | 148               | 140              | ØD/2              | 24               | 223               | 110       | CAR-H 006/010                   |
| 125 G3FMT-ULLM       | 330              | 165               | 140              | ØD/2              | 24               | 223               | 110       | CAR-H 006/010                   |
| 125 G3FMT-ULLM JIS5K | 320              | 160               | 140              | 0D/2              | 19               | 223               | 110       | CAR-H 006/010                   |
| 150 G3FMT-ULLM       | 356              | 178               | 149              | 0D/2              | 25,4             | 223               | 110       | CAR-H 006/016                   |
| 200 G3FMT-ULLM       | 410              | 205               | 182              | ØD/2              | 28,4             | 261               | 150       | CAR-H 016                       |
| 200 G3FMT-ULLM (**L) | 484              | 242               | 182              | 0D/2              | 28,4             | 261               | 150       | CAR-H -016                      |
| 250 G3FMT-ULLM       | 480              | 240               | 202              | ØD/2              | 31               | 261               | 150       | CAR-H -020                      |

\* High Flow

\*\* Long Version

\*\*\* Reduced Flow

ØD/2 - Depends on flange type (see also table 2)



### 0-2.6.17-A

## Page 3 of 4

| <b>SPECIFICATIONS - TABLE 2</b> | EN 1092-2                  |                            |                                 | ANSI Class 150             |                         |                                 | JIS B 2210 5K |                         |                                 | JIS B 2210 10K |                         |                                 |
|---------------------------------|----------------------------|----------------------------|---------------------------------|----------------------------|-------------------------|---------------------------------|---------------|-------------------------|---------------------------------|----------------|-------------------------|---------------------------------|
| Flange connections              | <b>D</b><br>(dia.)<br>(mm) | <b>k</b><br>(dia.)<br>(mm) | <b>d</b> mm<br>d!a.<br>(number) | <b>D</b><br>(dia.)<br>(mm) | <b>k</b> (dia.)<br>(mm) | <b>d</b> mm<br>dia.<br>(number) | (dia.)        | <b>k</b> (dia.)<br>(mm) | <b>d</b> mm<br>dia.<br>(number) | (dia.)         | <b>k</b> (dia.)<br>(mm) | <b>d</b> mm<br>dia.<br>(number) |
| DN100                           | 220                        | 180                        | 19x(8)                          | 230                        | 191                     | 19x(8)                          | 200           | 165                     | 19x(8)                          | 210            | 175                     | 19x(8)                          |
| DN125                           | 250                        | 210                        | 19x(8)                          | 255                        | 216                     | 22x(8)                          | 235           | 200                     | 19x(8)                          | 250            | 210                     | 23x(8)                          |
| DN150                           | 285                        | 240                        | 23x(8)                          | 280                        | 241                     | 22x(8)                          | 265           | 230                     | 19x(8)                          | 280            | 240                     | 23x(8)                          |
| DN200                           | 343                        | 295                        | 22x(8)                          | 343                        | 298                     | 22x(8)                          | 320           | 280                     | 23x(8)                          | 330            | 290                     | 23x(12)                         |
| DN250                           | 405                        | 350                        | 23x(12)                         | 405                        | 362                     | 25x(12)                         | 385           | 345                     | 23x(12)                         | 400            | 355                     | 25x(12)                         |

### **SPECIFICATIONS - TABLE 3**

| Туре        | Flange<br>connection<br>DN in mm | KvS<br>m3/h | Torque<br>Nm<br>For inlet P | Weight<br>kg |
|-------------|----------------------------------|-------------|-----------------------------|--------------|
| DN100 (*HF) | 100                              | 179         | 40                          | 27           |
| DN125       | 125                              | 179         | 40                          | 36           |
| DN150       | 150                              | 310         | 90                          | 44,5         |
| DN200       | 200                              | 550         | 120                         | 71           |
| DN250       | 250                              | 830         | 150                         | 102          |

Torque calculated at max **∆** P for: DN100 - 300 - 5 Bar

### NOTE: DN300/350/400 ARE AVAILABLE ON REQUEST