# 3-way Control Valve type G3FMT-ULL (Ultra Low Leakage) - High Flow

Nodular cast iron, PN10, DN100, 200 & 350 mm

## 0-2.6.19-A

Page 1 of 4



#### **TECHNICAL DATA**

Materials: - Valve body, slide	Nodular cast iron FN-GIS-400-15
- Sealing element and O-ri	211 050 100 15
Flow characteristic	Almost linear
Leakage rate	ANSI class IV/EN 1349 < 0.01%
Flanges - Option	EN 1092-2 PN 10 JIS B 2210 5K/10K ANSI class 150
Max. pressure Δp, against which the valve can close	5 bar
Nominal pressure	PN 10
Design temperature	120°C
Optional temperature	150°C

#### **APPLICATIONS**

Control valve type G3FMT-ULL 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-H 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.

Connection described for AB-Left valves - reverse connection for AB-Right valves.

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

#### **FEATURES**

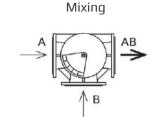
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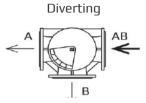
- Simple design secures reliable controls and reduces costly downtime
  - Ultra Low Leakage rate secures energy savings Best in class
- Most compact valve on the market
- Full flexibility on port orientation on AB right or AB left

Subject to change without notice.

Page 2 of 4

#### PORT NUMBERING: AB-RIGHT

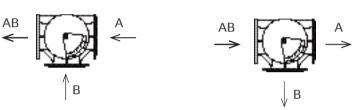




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#### **PORT NUMBERING: AB-LEFT**





### 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.

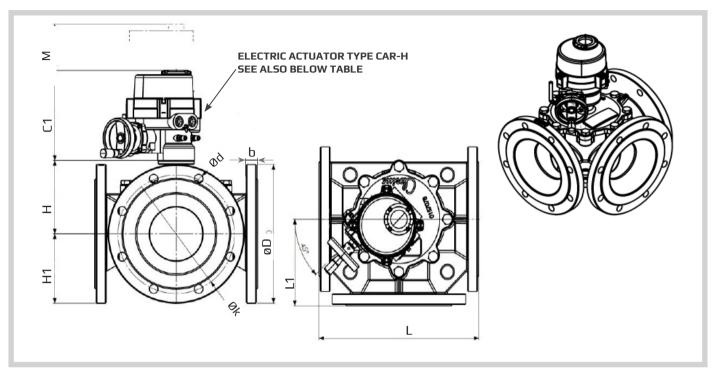
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# 0-2.6.19-A

Page 3 of 4

## **DIMENSION SKETCH**



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

Туре	<b>L</b> (mm)	<b>L1</b> (mm)	H (mm)	<b>H1</b> (mm)	<b>b</b> (mm)	<b>C1</b> (mm)	M (mm)	Electric Actuator Type CAR-H
100 G3FMT-ULL	296	148	140	ØD/2	24	223	110	CAR-H 006/010
200 G3FMT-ULL	410	205	202	0D/2	28,4	261	150	CAR-H -016
350 G3FMT-ULL	660	330	277,5	0D/2	36	315	180	CAR-H 050

0D/2 - Depends on flange type (see also table 2)

Subject to change without notice.



# 0-2.6.19-A

# Page 4 of 4

SPECIFICATIONS - TABLE 2	EN 1092-2			ANSI Class 150			JIS B 2210 5K			JIS B 2210 10K		
Flange connections		<b>k</b> (dia.) (mm)	<b>d</b> mm ന്. (number)	(iliči.)	<b>k</b> (dia.) (mm)	<b>d</b> mm dia. (number)	(dia.)	<b>k</b> (dia.) (mm)	<b>d</b> mm dia. (number)	<b>D</b> (dia.) (mm)	<b>k</b> (dia.) (mm)	<b>d</b> mm dia. (number)
DN100	220	180	19x(8)	230	191	19x(8)	200	165	19x(8)	210	175	19x(8)
DN200	343	295	22x(8)	343	298	22x(8)	320	280	23x(8)	330	290	23x(12)
DN350	505	460	23x(16)	533	476	29x(12)	480	435	25x(12)	490	445	25x(16)

## **SPECIFICATIONS - TABLE 3**

Туре	Flange connection DN in mm	KvS m3/h**	<b>Torque</b> Nm For inlet P*	<b>Weight</b> kg
DN100	100	270	40	27.9
DN200	200	1.300	150	72
DN350	350	3.840	530	183

\*Torque calculated at max  $\pmb{\Delta}$  P for: DN100 - 450 - 5 Bar

\*\*NOTE: KvS is max. KvS value