

**JRG**

**+GF+**

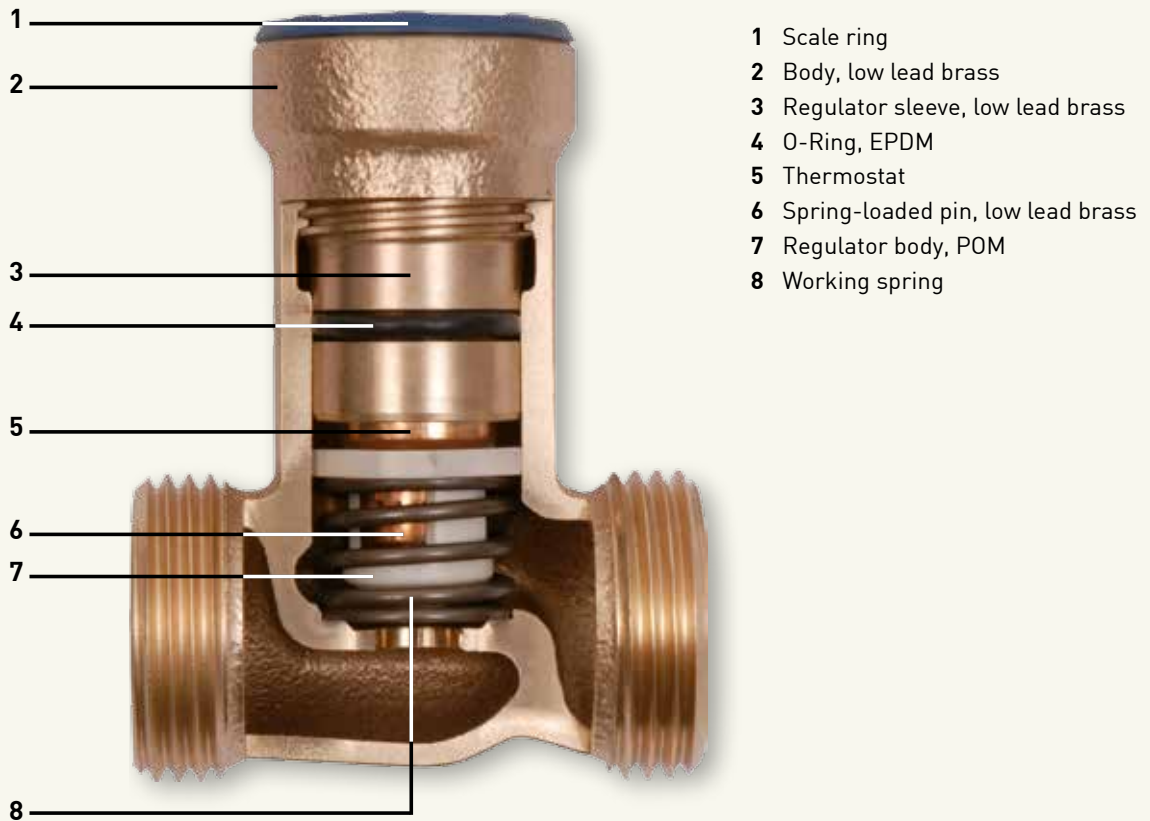
**Thermostatic flow regulator with  
threaded shut-off connections**

# **JRGUTHERM LF**

**Part of the ChlorFIT™ piping system**



## Construction



## Planning instruction

Even with self-regulating circulation regulators such as the JRGUTHERM LF, it is necessary to configure the system simply.

Recommended temperature spreading water heater – JRGUTHERM LF: 2–5 K.

In order to select the suitable pump, the discharge flow of the entire system has to be determined. The delivery height is calculated from the pressure loss of the least favourable pipe line (flow way). The pressure loss of the JRGUTHERM LF in this pipe line is measured on the  $k_{V_{max}}$  line on the diagram.

The pump performance of excessively strong pumps are to be throttled at the pump. The JRGUTHERM LF must not be used to throttle the pump (maximum differential pressure = 5.8 psi).

The regulators in the remaining pipe lines are to be selected in such a way that the intersection of the flow rate and the necessary pressure drop lies within the interpretation field.

In the appropriate configuration, with the most unfavourable flowway, the installation of a JRGUTHERM LF flow regulator can be avoided or it can be replaced by a mechanical throttle e.g. JRG Code 6310–6317.

A JRGUTHERM LF is to be integrated into all circulation outlets.

If there is any danger of the water flowing through the JRGUTHERM LF flow regulator in the wrong direction, this is to be avoided by the installation of suitable non-return valves. We recommend the installation of JRG Code 8208 screw connections with non-return valves.

For questions and information on application technology, please contact our technical advisors or the technical customer service.

## Function/ Installation position

### Function

The JRGUTHERM LF flow regulator regulates the volume flow rate by continuously sensing the water temperature with a thermostat. The hydraulic calibration is thus automatically established.

### Materials

All wetted parts are made of low lead brass, copper, stainless steel or high-grade plastic.

### Installation position

The JRGUTHERM LF flow regulator can be installed in any position.

If future alterations or maintenance is required it is recommended that shutoff valves be installed before and after the flow regulator.

### Operating Parameters

Temperature setting range	96-145°F
Maximum temperature load	158°F
Maximum operating pressure	145 psi
Maximum differential pressure	5.8 psi

The JRGUTHERM LF flow regulator is protected from over-heating.

The JRGUTHERM LF flow regulator is to be fitted with a bypass for thermal disinfection.

The JRGUTHERM LF flow regulator is not suitable for use in gravity circuits.

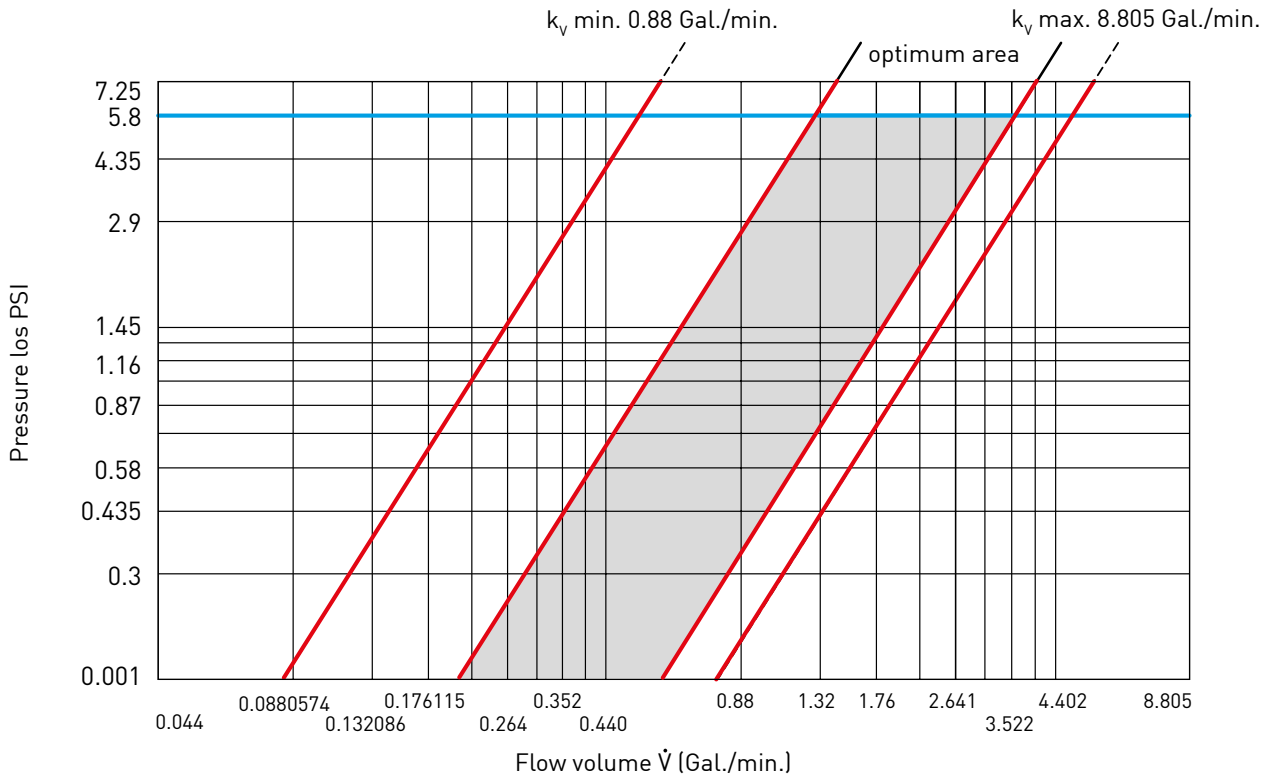
## JRGUTHERM LF advantages

- Simplifies flow calculations
- No setting up calculations
- Simple regulator operation
- Maintenance-free
- Automatic adjustment of the flow volume (hydraulic balance)
- Shorter heat-up phase after temperature drop
- Energy saving

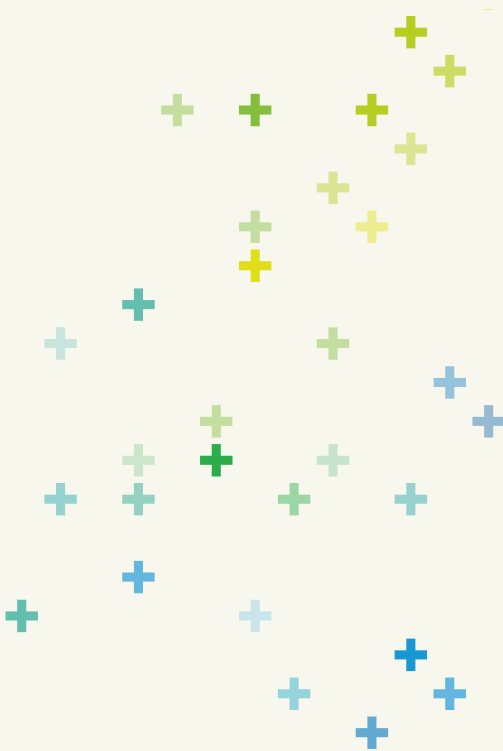


# Pressure loss

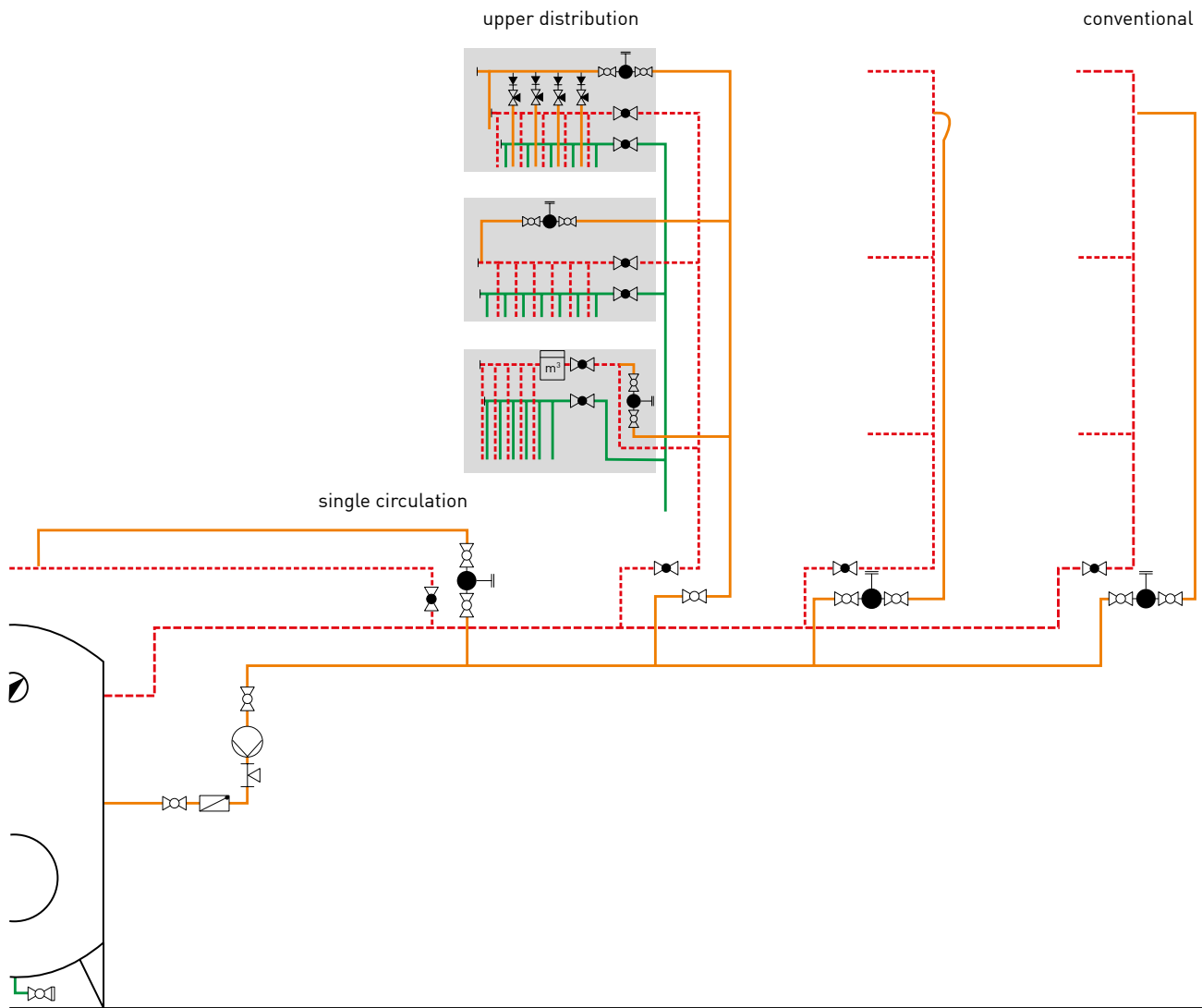
JRGUTHERM LF 6320.924





























— Maximum admissible differential pressure 5.8 psi!

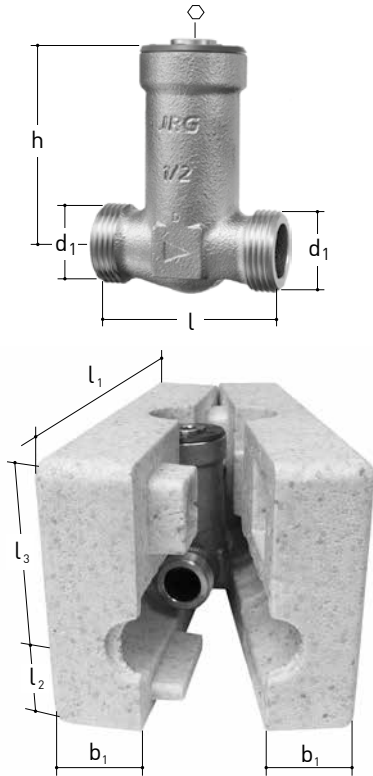


# Sample installation



DIN	Text	JRG Code	SIA
	TWK – cold water – WKR		
	TWW – hot water – WWV		
	TWZ – circulation WW – WWR		
	Stop valve	5000-31	
	Non-return valve	1640-66	
	Swing check valve	1682	
	Adjustable socket	6310	
	JRGUTHERM LF flow regulator	6329	
	Circulation pump		
	Drain cock	6000-12	
	Circulation collector	5560	
	Water meter	5450	
	Ball valve	6020/23	

# JRGUTHERM LF/Screw connections



## JRGUTHERM LF flow regulator PN 10

For hot water circuits, thermostatically regulated, low lead brass body with external threads, regulator sleeve with hexagon socket for angular Allen key and scale ring.

Factory-set to 134°F, scale value 6  
 Setting range 96–145°F  
 Max. temperature load 158°F  
 Max. operating pressure PN 10  
 Max. differential pressure 5.8 psi

### Accessories

Threaded shut off connection 8339

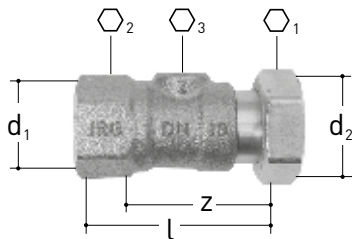
Unions with non-return valve 8208

– The flow regulator packing material serves as heat insulation.

– The JRGUTHERM LF is to be fitted with a bypass for thermal disinfection.

– The flow regulator is not suitable for use in gravity circuits.

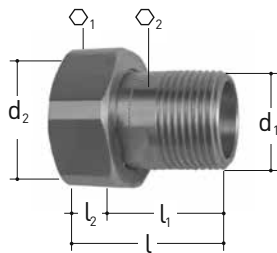
JRG Code	GF Code	GN	DN	d <sub>1</sub>	h	l	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	b <sub>1</sub>	⬡	lbs
6329.914	350831566	3/4	-	G 1	2 33/64	2 23/64	7 41/64	1 1/2	2 3/4	1 29/64	5/16	0.83



## Threaded shut off connection, PN 10

Made of low lead brass, with internal thread, lockable with ball valve, EPDM seal, loose brass nut, for water up to 158°F, suitable for flow regulator JRGUTHERM LF 6329.

JRG Code	GF Code	GN	DN	d <sub>1</sub>	d <sub>2</sub>	l	⬡ <sub>1</sub>	⬡ <sub>2</sub>	⬡ <sub>3</sub>	z	lbs
-	350887966	3/4	-	Rp 3/4	G 1	2 7/16	1 29/64	1 17/64	15/64	2 1/8	0.44



## Union with Non-return valve

Made of brass, with external thread and plastic non-return valve (PSU) with EPDM seal, suitable for flow regulator JRGUTHERM LF 6329.

JRG Code	GF Code	GN	DN	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	⬡ <sub>1</sub>	⬡ <sub>2</sub>	lbs
-	351056067	1/2	-	NPT 1/2"	G 1	1 49/64	1 33/64	1/4	1 3/16	3/4	0.19
-	351056066	3/4	-	R 3/4	G 1	1 11/16	1 29/64	1/4	1 29/64	15/16	0.28

# Adjustment/Setting ranges of the JRGUTHERM LF flow regulator

## Setting of the flow regulator

All flow regulators in the system must be adjusted to the same scale values. The settings value are shown in the table. The calibration of the individual circulation lines takes place automatically.

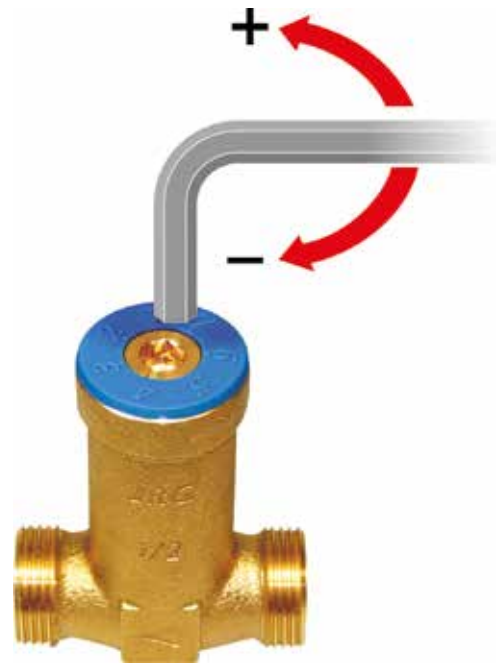
## Transport packaging

The transport packing of the JRGUTHERM LF flow regulator serves as thermal insulation after assembly and setting.

## Adjusting the flow regulator

The factory setting of the JRGUTHERM LF flow regulator can be changed as follows:

Put Allen key into the hexagon socket. Turning the key clockwise lowers the circulation set point temperature, turning it anticlockwise raises the circulation set point temperature.



JRGUTHERM LF Set points	Circulation set point value
1	96.8°F
2	105.8°F
3	113°F
4	120.2°F
5	127.4°F
<b>6*</b>	<b>134.6°F</b>
7	145.4°F

\* Factory setting

## Maintenance

- The JRGUTHERM LF flow regulator operates largely maintenance-free.
- The assembly and operating instructions supplied are to be given to the owner once the system is handed over.

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