

# ***rada***

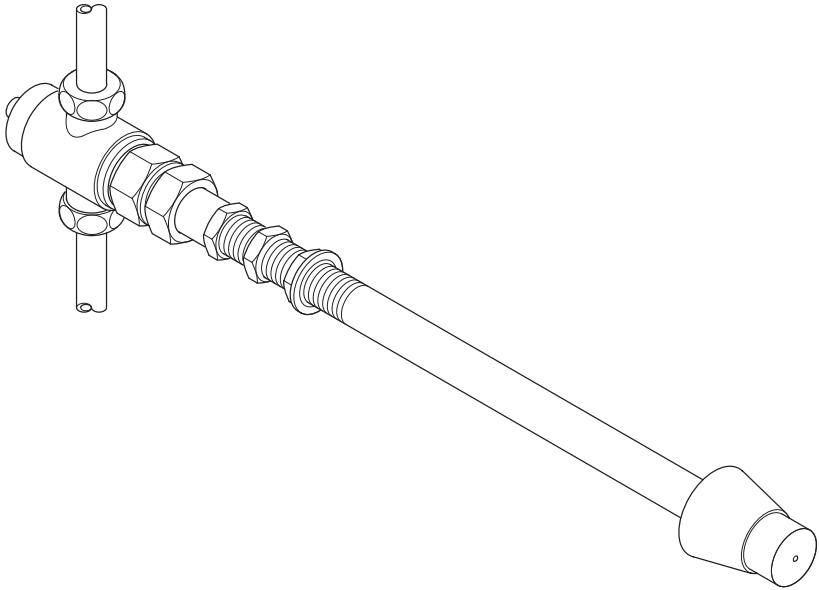
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**CONTROLS**

## ***TF31***

### **DUCT-MOUNTED TIMED FLOW CONTROLLER**



## **PRODUCT MANUAL**

### **IMPORTANT**

**Installer:** This Manual is the property of the customer and must be retained with the product for maintenance and operational purposes.

# INTRODUCTION

The Rada TF31 is a 1/2" push-button flow control for duct mounting. It has a 30 second timed flow and comes with extended rod options for extra security and varying wall thicknesses. The Rada TF31 incorporates an internal flow adjuster and has 15 mm compression fittings.

# DESCRIPTION

The Rada TF31 is a press action water flow control valve which automatically turns the flow off. The full cycle is reactivated each time the flow button is pressed.

The flow rate is constant and is automatically turned off after a period of approximately 30 seconds. For economy in the use of energy and water an economical flow rate can be obtained by adjustment of the internal flow adjuster.

## Product Range

- TF31/1** - Duct mounted model. Valve is connected to the flow button by an extension rod which is mounted through the wall. Suitable for wall thicknesses between 100 mm and 140 mm (4" and 5½").
- TF31/2** - As TF31/1 but suitable for wall thicknesses between 142 mm and 182 mm (5½" and 7").
- TF31/3** - As TF31/1 but suitable for wall thicknesses between 206 mm and 246 mm (8" and 9½").

# SAFETY : WARNINGS

Rada products are precision-engineered and should give continued superior and safe performance, provided:

1. They are installed, commissioned, operated and maintained in accordance with the recommendations given in this Manual, and
2. Periodic attention is given, as necessary, to maintain the product in good functional order. Recommended guidelines are given in the **MAINTENANCE** section.

Provided the TF31 it is installed, commissioned, operated and maintained within these recommendations, the risk of failure, if not eliminated, is reduced to the minimum achievable.

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# SPECIFICATION

## Important Points:

1. The installation, commissioning and maintenance of this product must be carried out in accordance with instructions given in this Manual, and must be conducted by designated, qualified and competent personnel.
2. Installations must comply with **all** Local/National Water Supply Authority Regulations/Bye-laws, and Building and Plumbing (UK: BS6700) Regulations.
3. Rada products are precision-engineered and should give continued superior and safe performance, provided:
  - they are installed, commissioned, operated and maintained in accordance with these recommendations.
  - periodic attention is given as necessary to maintain the product in good functional order. Recommended guidelines are given in the **MAINTENANCE** section.
4. **Warning:** Continued use of this product in conditions outside the limits listed in this section can severely affect the performance and reduce the effective service life, and can present potential risk to users.
5. **Disinfectants:** In applications where system chemical disinfection is practised, chlorine can be used (calculated chlorine concentration of 50 mg/l [ppm] maximum in water, per one hour dwell time, at service interval frequency). Such procedures must be conducted strictly in accordance with the information supplied with the disinfectant and with all relevant Guidelines/Approved Codes of Practice. If in any doubt as to the suitability of chemical solutions, refer to Kohler Mira Limited, or Local Agent.

## Normal Operating Conditions are considered as:

- daily usage of 1-6 hours
- installation and usage environment not subject to extremes of temperature, unauthorised tampering or wilful abuse.

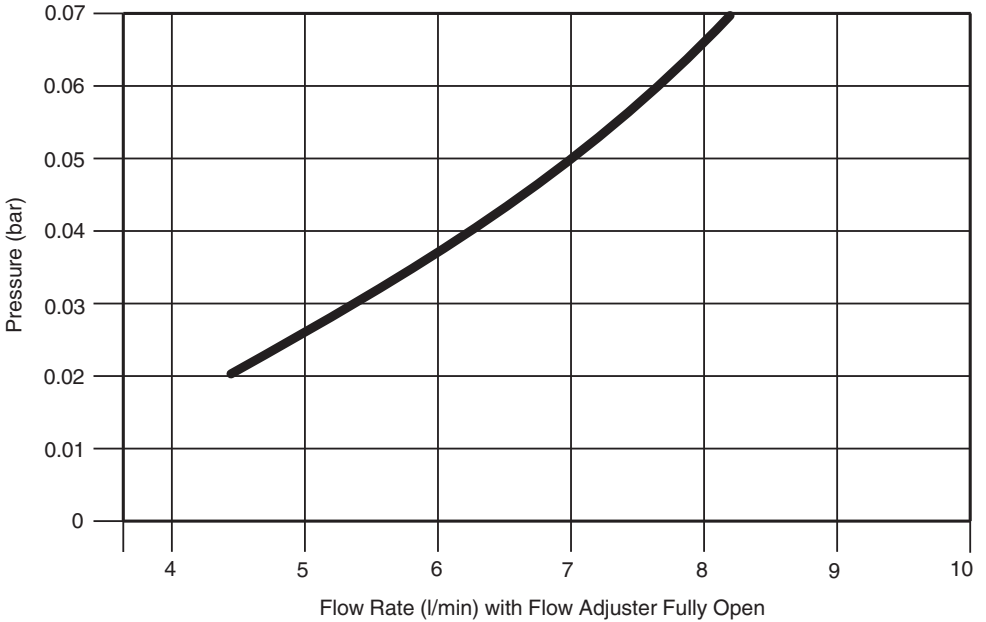
# Operating Parameters:

## Pressures

Maximum Static Pressure : **7 bar**.

## Flow Rates

The graph below shows the flow rate for the Rada TF31 when discharging through an open outlet.



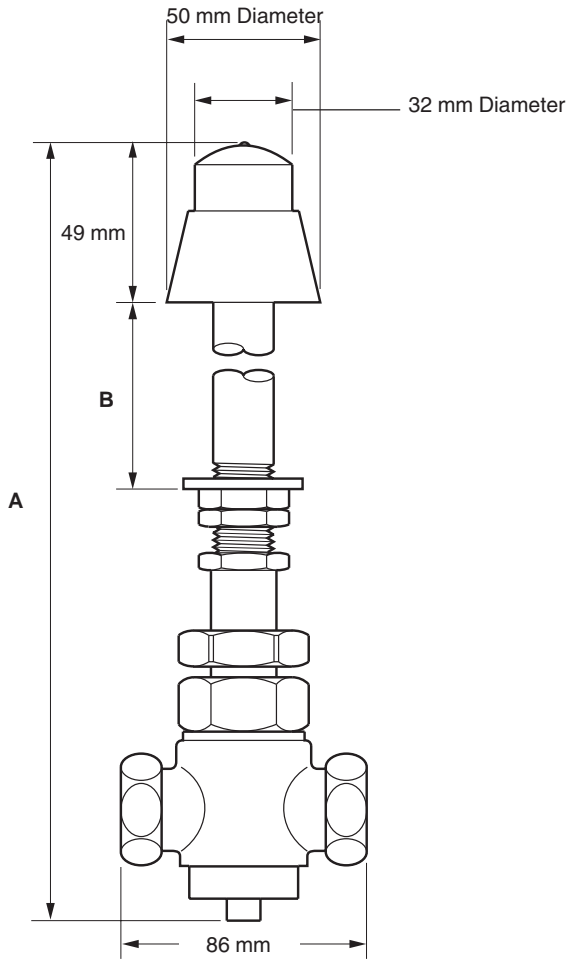
## Temperature Range

Suitable for applications requiring water temperatures up to **70°C**.

## Connections

**15 mm compression.** Alternatively a 3/4" BSP male parallel thread is available by removing the compression nuts.

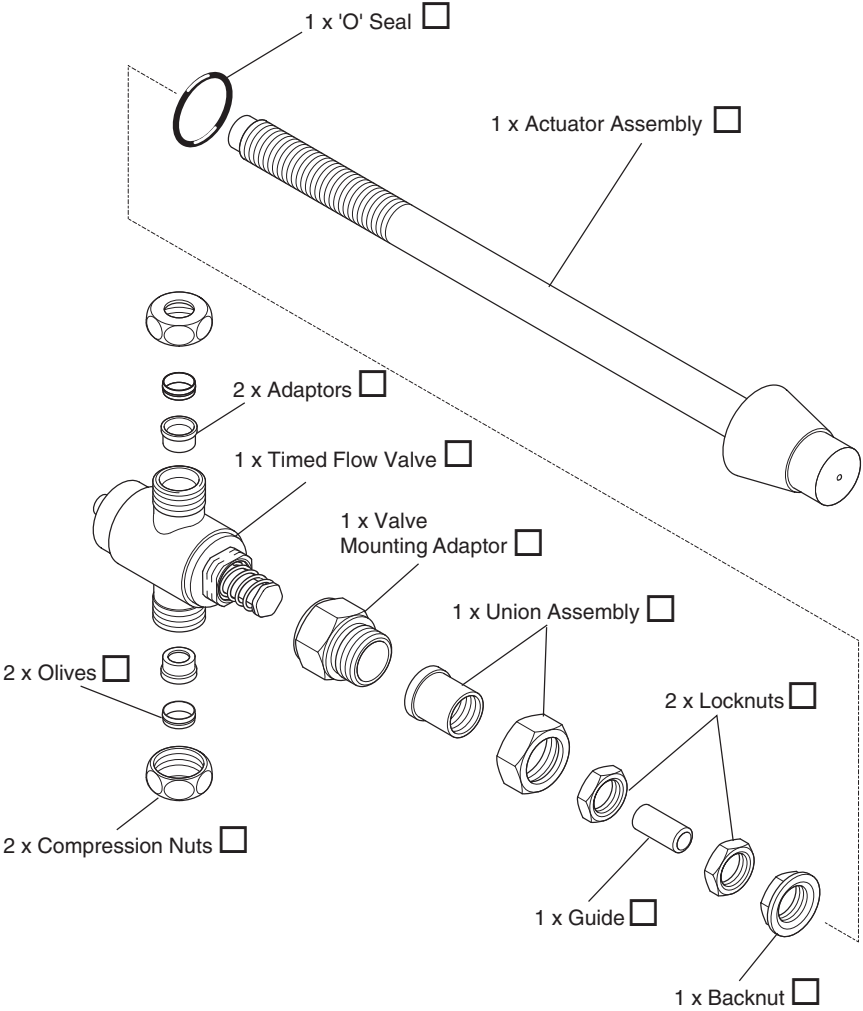
# DIMENSIONS



Model	Overall Length 'A'	Wall Thickness 'B'
TF31/1	340	100 - 140
TF31/2	380	142 - 182
TF31/3	445	206 - 246

# PACK CONTENTS

Tick the appropriate boxes to familiarize yourself with the part names and to confirm that the parts are included.



## Documentation

1 x Product Manual



# INSTALLATION

## General

**Installation must be carried out in accordance with these instructions, and must be conducted by designated, qualified and competent personnel.**

1. Before commencing, assure that the installation conditions comply with the information given in the **SPECIFICATION** section.
2. Care must be taken during installation to prevent any risk of injury or damage.
3. Conveniently situated isolating valves must be provided for maintenance.
4. Pipework dead-legs should be kept to a minimum.
5. Inlet threaded joint connections should be made with PTFE tape or liquid sealant. Do not use oil-based, non-setting jointing compounds.
6. **To eliminate pipe debris it is essential that supply pipes are thoroughly flushed through before connection to the TF31.**

## Procedure (Refer to Figure 1)

1. Drill a hole through the wall in the required position (22 mm dia. minimum, 28 mm dia. maximum). The hole **must** be square to the wall face.
2. Push the actuator assembly through the hole from the front of the wall, having first made sure that the 'O' seal is correctly installed.
3. Firmly fix the actuator assembly into the wall using the 1/2" backnut supplied (ensuring that the 'O' seal is retained in its groove), and secure it with the first locknut.
4. Place the plastic guide over the hexagonal end of the push rod so that the rod is held in place within the threaded tube of the actuator assembly.
5. Screw the second locknut loosely up to the first, and then screw the union nut assembly tightly onto the end of the actuator assembly. Unscrew the second locknut until it is tight against the union nut assembly.

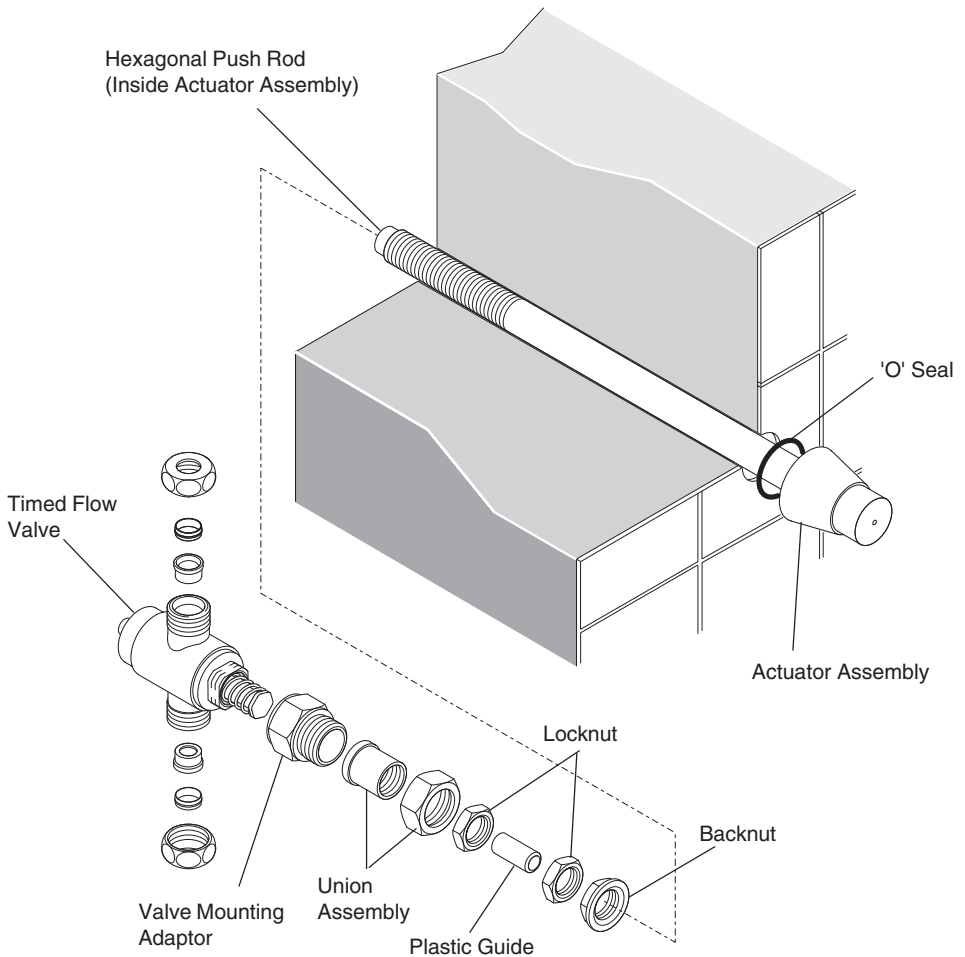
**Note!** The plastic guide should rest flush within the hexagonal hole in the union nut assembly. If the plastic guide rests a little way short of this position, remove the plastic guide and insert sufficient packing inside it to ensure that it will rest in the correct position when installed.

6. Screw the valve mounting adaptor tightly onto the timed flow valve. The hexagonal spring retaining nut on the end of the valve should be flush within the threaded section of the adaptor nut.



7. Offer the timed flow valve assembly up to the actuator assembly and join together by tightening the union nut. Ensure that the valve is secured in the correct position for the water supply. The arrow on the side of the valve indicates the direction of water flow through the valve. **Note! The valve will not function correctly if the water does not flow in the direction indicated.**
8. Connect inlet and outlet pipework using the compression fittings supplied. To commission Rada TF503 Timed Flow Controller, refer to Installation and Maintenance Guide for TF503/503B Timed Flow Controls (Publication number P1186).

**Note!** refer to **SPECIFICATION** for correct model.



Installation of the TF31  
Figure 1

# MAINTENANCE

## General

Rada products are precision-engineered and should give continued superior and safe performance, provided:

1. They are installed, commissioned, operated and maintained in accordance with our recommendations.
2. Periodic attention is given as necessary to maintain the product in good functional order. Guidelines for frequency are given below.

Rada Service Engineers/Agents will call by prior arrangement, if required. Service Contracts may be undertaken, subject to survey - details upon request.

## Preventative/Precautionary Maintenance

The frequency and extent of attention required will vary according to prevailing site and operational conditions.

**Visual:** check internal component condition. Inspect for debris, scale deposition, deformation, damage, corrosion, etc. Maintain or renew as necessary. Lubricate applicable components using **silicone-only based lubricant**.

## Lubricants

**Important: Use silicone-only based lubricants on this product. Do not use oil-based or other lubricant types as these may cause rapid deterioration of seals.**

## Maintenance Procedures

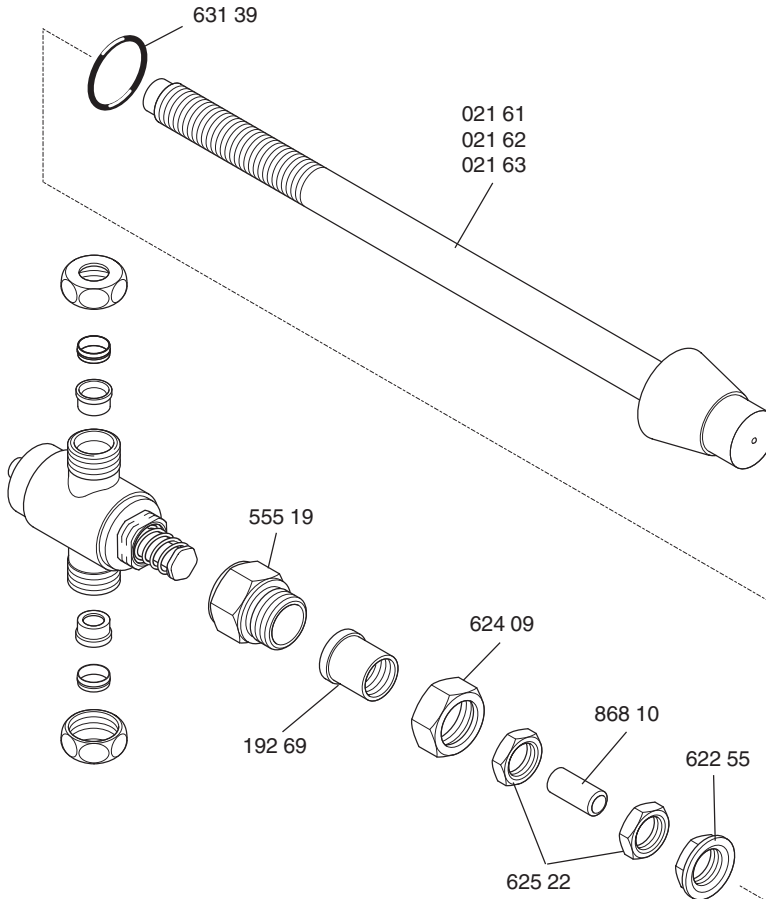
1. Locate and isolate water supply.
2. Break the join between the actuator assembly and the timed flow valve assembly by unscrewing the union nut.
3. Loosen off the compression fittings on the valve and swivel the valve round to enable servicing from the front. If necessary, the actuator assembly can be withdrawn slightly through the wall by loosening the first locknut and the backnut.
4. Remove the valve mounting adaptor and unscrew the headnut to the valve.
5. Service the valve in accordance with the instructions given in the Installation and Maintenance Guide for TF503/503B Timed Flow Controls (Publication number P1186).

# SPARE PARTS

## Spare Parts List

021 61	Actuator Assembly TF31/1
021 62	Actuator Assembly TF31/2
021 63	Actuator Assembly TF31/3
192 69	Union Assembly
555 19	Valve Mounting Adaptor
622 55	Back Nut
624 09	Union Nut
625 22	Lock Nut
631 39	'O' Seal
868 10	Guide

## Spare Parts Diagram



# CUSTOMER CARE

## Guarantee

This product is guaranteed against any defect of materials or workmanship for one year from the date of purchase, provided that the product has been installed correctly and used in accordance with the instructions supplied.

Any part found to be defective during the guarantee period will be replaced or repaired - at our option - without charge, provided that the product has been properly used and maintained.

Routine cleaning and maintenance should be carried out in accordance with the instructions supplied.

The product should not be modified or repaired except by a person authorised by Rada. Your statutory rights are in no way affected by this guarantee.

## After Sales Service - how we can help you

We have a network of fully trained staff ready to provide assistance, should you experience any difficulty operating your Rada equipment.

## Spare Parts

All functional parts of Rada products are kept for up to ten years from the date of final manufacture.

If during that period, our stock of a particular part is exhausted we will, as an alternative, provide an equivalent new product or part at a price equating to the cost of repair to the old, bearing in mind the age of the product.

## Customer Care Policy

If within a short time of installation the product does not function correctly, first check with the Operation and Maintenance Advice provided in this Manual to see if the difficulty can be overcome.

Failing this, contact your installer to ensure that the product has been installed and commissioned in full accord with our detailed installation instructions.

If this does not resolve the difficulty, please ring your nearest Rada contact who will give every assistance and, if appropriate, arrange for the local Service Engineer or Agent to call on a mutually agreeable date.

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## Contact:

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### Kohler Mira Limited

Cromwell Road,  
Cheltenham, England,  
GL52 5EP, UK.

Tel.: + 44 (0)1242 221221

Fax.: + 44 (0)1242 221925

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