

# On/Off electrothermic Actuators Series 26LC



## Main features

- 26LC series available in the following versions:
  - NC (Normally closed) 24Vac and 230 Vac
  - 2 poles cable
  - 4 poles cable (with auxiliary contact)
- New compact design.
- Low consumption:
  - 1,8 W for 230V
  - 1,6 W for 24V
- Easily removable electrical cable.
- Check status of actuator (On/Off) by LED.
- Protection class IP64.
- Safety Tested and Production Monitored by TÜV Sud.
- Compliant to the following directives:
  - 2006/95/EC (LVD)
  - 2004/108/EC (EMC)

 **WATTS**<sup>®</sup>  
**INDUSTRIES**

A Division of Watts Water Technologies Inc.

## Description

The electrothermic actuators 26LC series are ON/OFF devices used for automatic actuation of thermostat adaptable valves, fan coil valves and manifolds for underfloor heating systems.

These electrothermic actuators are available in the following versions:

- 24V a.c. and 230V a.c.
- NC (normally closed)
- 2 poles cable
- 4 poles cable (with auxiliary contact).



## 26LC

Electrothermic actuator compact design with on/off action, compatible with thermostat adaptable radiator valves, valve for fan-coils and manifolds Series 822MM.

Normally Closed (NC) 24V a.c and 230V a.c Low consumption.

Easily removable electrical cable with safety latch connector.

LED check for the status (ON/OFF) of the actuator.

4 poles cable version (NC4) complete of auxiliary Microswitch (NO contacts).

Cap made of flame retardant plastic.

Nickel-plated brass threaded ring nut M30 x 1.5.

*Interchangeable with Watts Industries Actuators Series 20C and 22C (NC models).*

Type	Part no.	Power supply	Weight (g)
26LC	26LC230NC2	230V a.c.	140
26LC	26LC24NC2	24V a.c.	140
26LC	26LC230NC4	230V a.c. + microswitch	155
26LC	26LC24NC4	24V a.c. + microswitch	155

## Operation

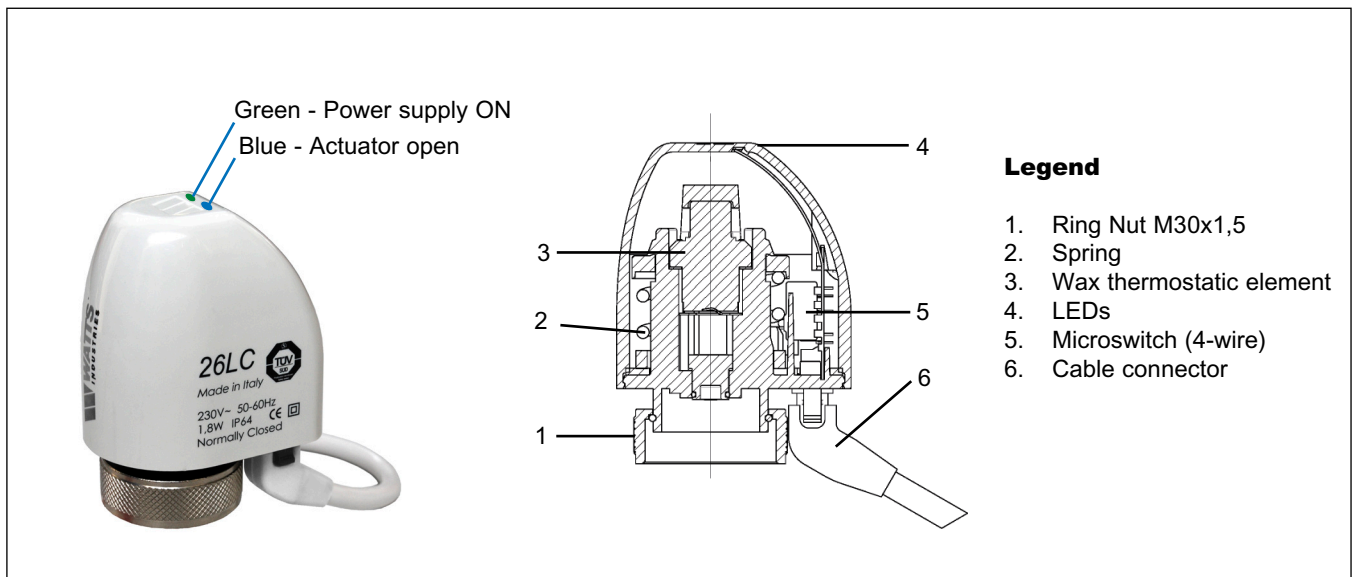
When voltage is applied (typically an electrical signal sent by a room thermostat) the internal PTC thermistor heats the wax thermostatic element that starts expanding and it supplies the thrust required for automatic movement of the valve.

The 4-wire version is provided with an auxiliary contact for additional commands or devices (metering, pump control, fan or other equipment). When the actuator is open, this contact (NO) closes.

For use with devices that have an electrical consumption higher than microswitch limits, use an additional relay.

Two LEDs (visible only when lighted) are positioned on top of the actuator:

The green LED shows the power supply presence and the blue LED shows when the valve is open.



## Application

The electrothermic actuators series 26LC, are used for ON/OFF control of the heat emission of terminal control units in heating and air conditioning systems, through an electric signal transmitted by a room or timing thermostat. The use of electrothermic actuators instead of pure thermostatic actuators allows remote control. The room thermostat, timing thermostat, or control component controlling the system can be situated in the most suitable point of each room to provide regulation.

Electrothermic actuator, series 26LC, has been designed for mounting on valves and devices manufactured by Watts Industries:

- Thermostatic adaptable valves series 178UM, 1178UM, 179UM, 1179UM, 188UM, 1188UM, 189UM, 1189UM, 130UM, 131UM, 102M, 120B
- Fan coil valves series 2131, 3131, 4131, KV4
- Manifolds series 822MM, 822MME, CPRFLW

## Technical characteristics

Technical characteristics	
Action	ON/OFF
Type of movement	Linear
Power supply	230 V a.c. +10% ÷ -15% 24 V a.c. +10% ÷ -15%
Frequency	50 ÷ 60 Hz
Power consumption (continuous duty)	1,8 W (230V) 1,6 W (24V)
Auxiliary microswitch not energized (4-pole model)	resistive load: max 5 A - 250 V a.c. inductive load: max 700 mA - 250 V a.c.
Protection class	IP64 to EN60529
Electrical Protection class	Class II
Pollution rating	Grade 2
Opening time (230V): initial time	75 secondS
final time	3 minutES
Opening time (24V): initial time	3 minutES
final time	5 minutES
Actuator stroke	max 3,5 mm
Valve stroke	2,5 mm
Nominal closing force (power OFF)	110 N ( $\pm 10\%$ )
Operating temperature range	0 ÷ 50 °C
Storage temperature limiti	-25 ÷ 60 °C
Flid temperature limit	110 °C
Plastic cover	ABS V0 autoestinguente RAL 9016
Other plastic components	PA V0 autoestinguente
Electrical cable	2-pole x 0,75 mm <sup>2</sup> - 1 m length* 4-pole x 0,75 mm <sup>2</sup> - 1 m length*
Valve connenction	Threaded ring nut M30x1,5

\* Special cable length on request

Reliability of the electrothermic actuators 26LC series is guaranteed due to 100% testing of the production.

## Approvals



The electrothermic actuators 26LC are TÜV Sud approved.

The TÜV "Safety Tested and Production Monitored" mark guarantees that the 26LC actuators have successful passed all the safety product tests required by the European directives.



Directives	Norms
2006/95/EC (LVD)	CEI EN 60730-1 CEI EN 60730-2-14
2004/108/EC (EMC)	CEI EN 55014 CEI EN 55104

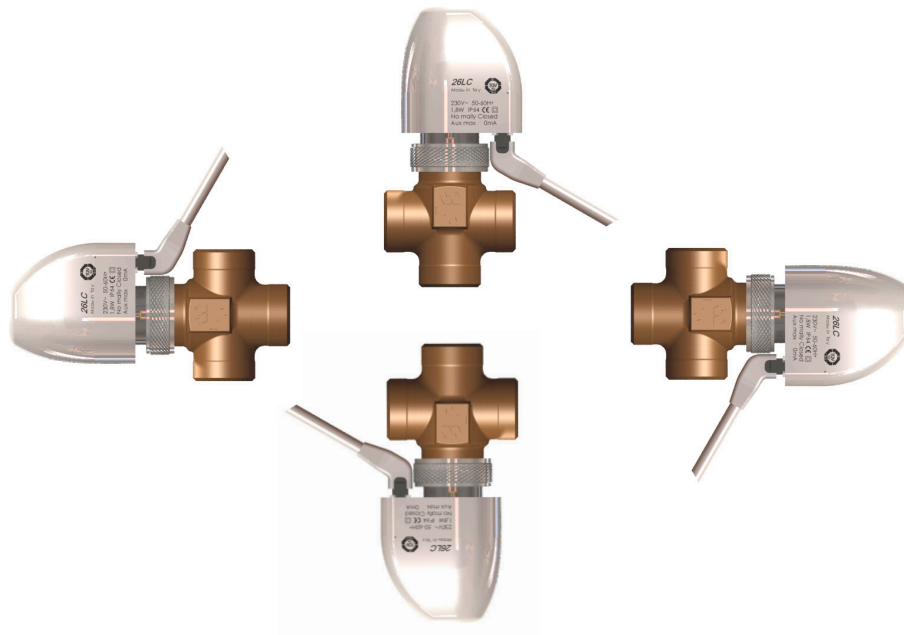
## Installation

The electrothermic actuators 26LC series can be selected according to the type of system, available space and type of power supply. In systems with 2-way control valves fitted with electrothermic actuators it is advisable to install by-pass valves in (series 466 or series USVR) to ensure a minimum recirculation of the fluid.

To install the actuators follow these steps:

1. remove the protective cap, if present, or handwheel from the valve (or manifold outlet)
2. screw-in the actuator ring nut by hand on the threaded part of the valve body and lock it
3. connect the wires to the power supply
4. insert the plug in the actuator connector

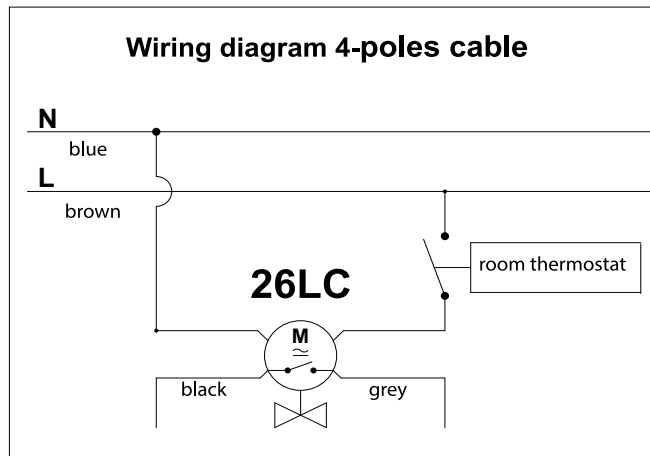
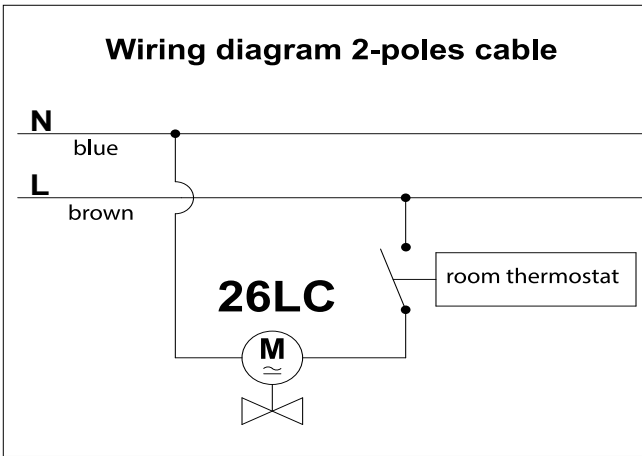
Protection class **IP64** allows to install the 26LC in any position respect to the valve body.



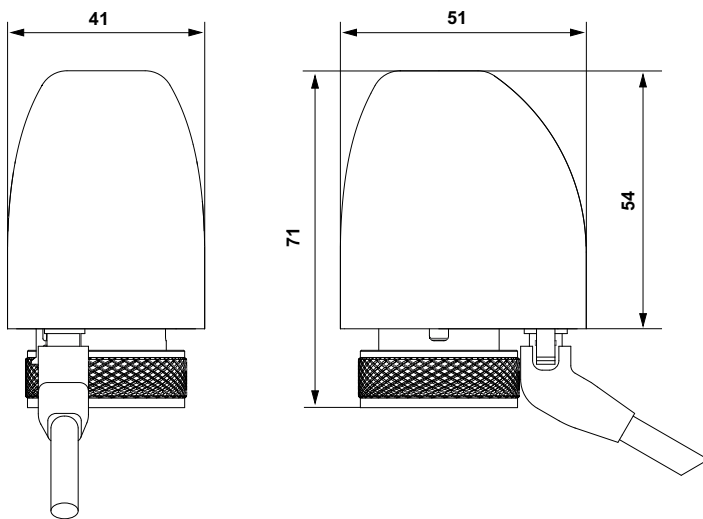
The removable cable allows easy mounting, maintenance and replacing. Pull the connector pressing the safety latch to take it out from the socket.



**Electric diagrams**



**Overall dimensions (mm)**



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Watts Industries reserves the right to carry out any technical and design improvements to its products without prior notice.