Centra
MSHF / MSLF
Small Floating 3-Point Linear Actuator

Application

The Resideo MSHF and MSLF actuators are specifically designed to provide floating 3-Point control together with the V5007 pressure independent control valves (PICV) and with VDE/VDE…C/VDE…M/VXE/VXE…M/VYE series of Resideo small linear valves.

The MSHF and MSLF actuators are used in fan-coil-units, induction units, small reheaters and recoolers, small heat interface units, and for zone control applications. It is employed in electronic temperature control systems with hot and/or cold water as the controlled medium. The MSHF and MSLF actuators are suitable for controllers and individual room temperature controllers working with floating 3-Point signal.

These actuators are well suited for applications where space is limited and minimum power consumption is required. The actuators are both attractive and robust in design.

Approvals

- CE

Special Features

- Suitable for floating 3-Point control without proportional feedback
- Small size allows installation where space is limited
- Low power consumption
- Manual operation with a hexagon key
- IP 54 protection class
- Easy mounting on valve via standard M30 x 1.5 screw connection, no tools required for mounting
- Supplied with pre-wired connection cable
- Visual valve position indicator furnished with actuator
- Low operating noise level < 28 dB (A) at nominal force and control mode, measuring distance 1 m

Technical Data

Temperature	
Operating temperature:	-5… +60 °C
Medium temperature:	Max. 120 °C
Humidity	
Non-condensing humidity:	5 % to 95 % R.H.
Weight	
Weight:	300 g
Mechanical parameters	
Stroke:	2 mm to 8 mm
Stem force:	180 N, 300 N
Running time:	150 s at 6.5 mm stroke
Actuator connection:	M30 x 1.5
Electrical parameters	
Input voltage:	24 V AC +/-20 %, 50/60 Hz 24 V DC +/-10 % 230 V AC, 50/60 Hz
Power consumption:	24 V: 0.5 W / 0.9 VA 230 V: 1.4 VA
Control mode:	Floating 3-Point
Protection standard:	IP54 per DIN EN60529
Insulation class:	Class III per EN60730-1
Connection cable:	1.5 m
Suitable valves	
Resideo PICV 5007:	DN 15 - DN 50
Resideo linear valves VDE / VXE / VYE:	DN 15 - DN 25
Resideo pressure balanced linear valves VDE...C:	DN 15 - DN 32
Resideo pressure balanced linear valves VDE...M, VXE...M:	DN 25 - DN 40

ООО Промэлектроника / sales@prom-elec.com

Transportation and Storage

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	-20 °C
Max. ambient temperature:	70 °C
Min. ambient relative humidity:	5 % *
Max. ambient relative humidity:	95 % *

*non condensing

Method of Operation

The actuator is moved by a screw spindle driven in both directions, through a set of gears, by a brushless motor. The actuator utilizes a microcontroller for speed regulation and precise control of driving force limitation.

The actuator is fixed to the valve body by means of a coupling ring requiring no tools for mounting. The actuator is maintenance-free and supplied complete with a ready-to-wire connecting cable

Installation Guidelines

Safety Guidelines

The MSHF and MSLF actuators must be installed, commissioned and adjusted only by professionals.

Mounting

The actuator may be mounted in any position. Adjust the valve in the correct position before mounting the actuator.

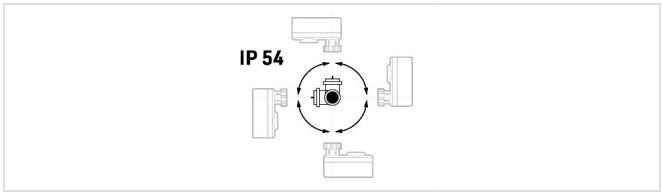


Fig. 1 Mounting positions

Before the actuator is fixed to the valve, the adjustment cap must be removed (Fig. 2). Make sure that the actuator is in the retracted position (factory-supplied position) before fixing the actuator to the valve body.

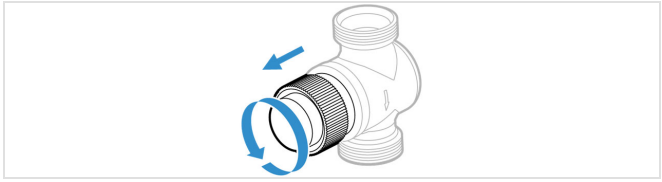


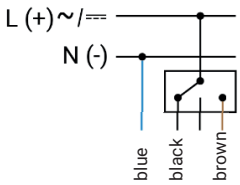
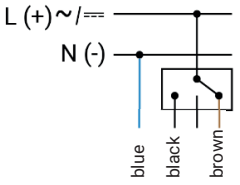
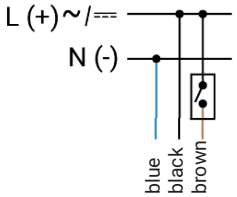
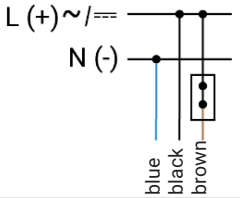
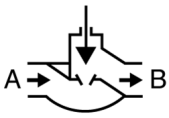
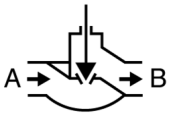
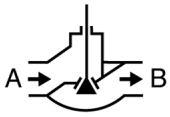
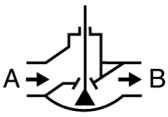
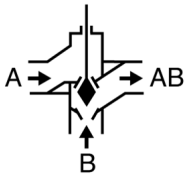
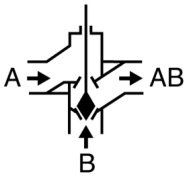
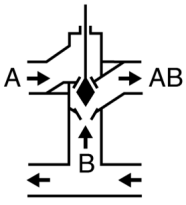
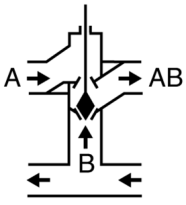
Fig. 2 Removing protection cap

The actuator must be mounted by hand. Do not use tools or additional force, as that could damage the actuator and valve.

Fig. 3 Mounting the actuator

Wiring

The electrical installation must comply with Tab. 1

3-Point	MSH = 230 V~ 50 HZ MSL = 24 V~ 50 HZ, 24 V= 	MSH = 230 V~ 50 HZ MSL = 24 V~ 50 HZ, 24 V= 
2-Point	MSH = 230 V~ 50 HZ MSL = 24 V~ 50 HZ, 24 V= 	MSH = 230 V~ 50 HZ MSL = 24 V~ 50 HZ, 24 V= 
V5007	OPEN 	CLOSE 
VDE	CLOSE 	OPEN 
VXE	OPEN B-AB 	OPEN A-AB 
VYE	OPEN B-AB 	OPEN A-AB 

Tab. 1 Electrical Installation

Manual Operation

The actuators with integrated manual operation feature a hexagonal key hole for manual operation. To avoid damaging the valve, separate the actuator from the power supply before adjusting manually.

During manual operation once the end position is reached a clicking noise occurs (coming from a mechanical protection). The clicking noise can occasionally occur also during manual operation out of end position and does not represent a product failure.

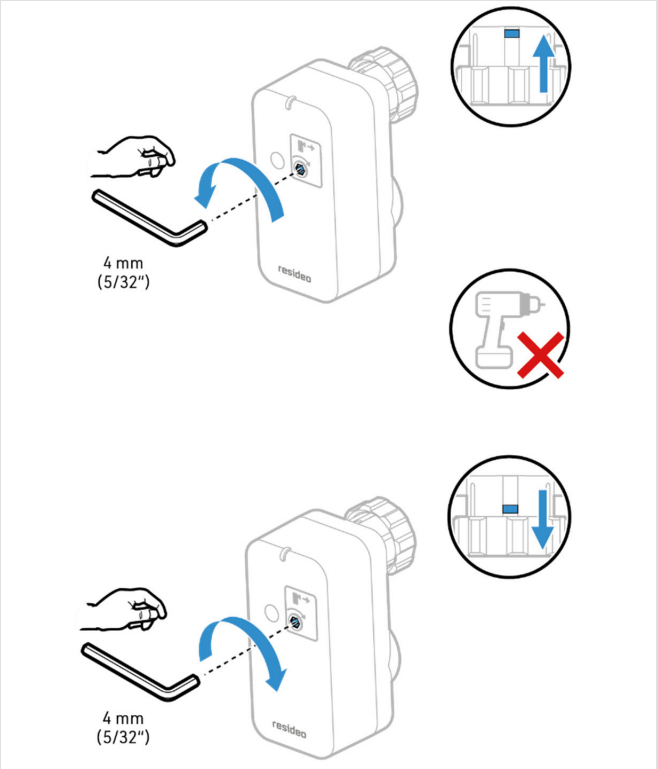


Fig. 4 Manual operation

The actuators MSxx-xxxx-151 have an integrated manual operation feature.

The manual operation force up to 800 N applied at the MSxx-xxxx-151 actuators is compatible with the Resideo linear valves up to 8 mm stroke.

MSxx-xxxx-151 are compatible also with V5007 Resideo pressure independent control valves produced after the week 38, 2025 (date code after 2538).

In case MSxx-xxxx-151 actuators are used with valves produced by other manufacturer please check the suitability of the combination related the manual operation force with the manufacturer of the valves.

Commissioning

A functional check of the valve actuator can be carried out by changing the controller set point by 5 °C or more. The resultant movement of the actuator stem (Fig. 5) indicates whether the valve is opening or closing.

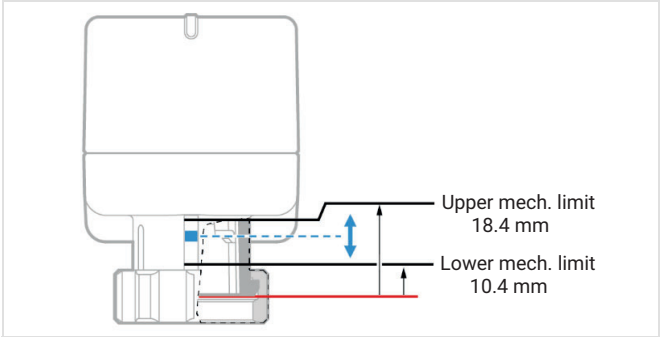
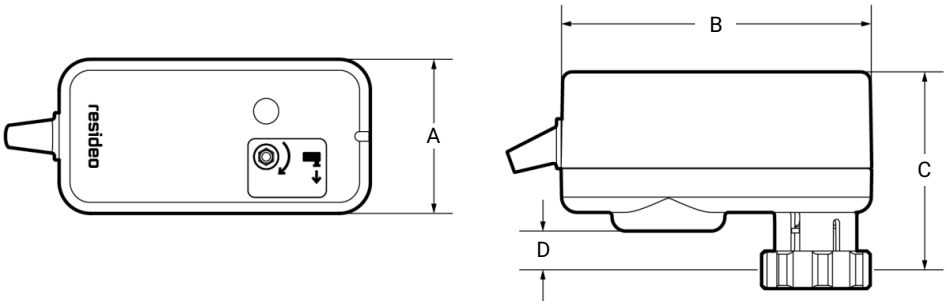


Fig. 5 Mechanical limits of the actuator

Dimensions

Overview



A	B	C	D
49	100	63	12

Note: All dimensions in mm unless stated otherwise.

Ordering Information

The following tables contain all the information you need to make an order of an item of your choice.

Naming of small floating 3-Point linear actuators

MS	L	F	-B	018	-15	0
Type of actuator	Voltage	Control mode	Nominal stroke	Stem Force	Cable length	Manual operation
MS = Small linear actuator series	H = 100-253 V AC L = 24 V AC/DC	F = Floating 3-Point	6.5 mm	018 = 180 N 030 = 300 N	15 = 1.5 m	0 = without manual operation 1 = with manual operation

Options

Force	Voltage	Manual override	Description	Item number
180 N	24 V AC/DC	No	Small linear actuator MS, nominal stroke 6.5 mm, 180 N, 24 V AC/DC, 3-point	MSLF-B018-150
180 N	24 V AC/DC	Yes	Small linear actuator MS, nominal stroke 6.5 mm, 180 N, 24 V AC/DC, 3-point, with manual operation feature	MSLF-B018-151
180 N	100 - 253 V AC	Yes	Small linear actuator MS, nominal stroke 6.5 mm, 180 N, 100-253 V AC, 3-point, with manual operation feature	MSHF-B018-151
300 N	24 V AC/DC	No	Small linear actuator MS, nominal stroke 6.5 mm, 300 N, 24 V AC/DC, 3-point	MSLF-B030-150
300 N	24 V AC/DC	Yes	Small linear actuator MS, nominal stroke 6.5 mm, 300 N, 24 V AC/DC, 3-point, with manual operation feature	MSLF-B030-151
300 N	100 - 253 V AC	Yes	Small linear actuator MS, nominal stroke 6.5 mm, 300 N, 100-253 V AC, 3-point, with manual operation feature	MSHF-B030-151

Accessories

	Description		Item No.
	MS-COVER	**Small linear actuator cover cap** can be used to cover the round adjusting elements	
		50 pcs in one bag	MS-COVER

resideo

Manufactured for and on behalf of
Pittway Sàrl, Z.A., La Pièce 6,
1180 Rolle, Switzerland

by its affiliate Ademco CZ, s.r.o
Tuřanka 1236/96
627 00 Brno-Slatina, Czech Republic

Subject to change. EN0H-1791GE23 R1025
© 2025 Resideo Technologies, Inc.
All rights reserved.

For more information
resideo.com

For support
resideo.com/emea/en/support

This document contains proprietary information of Pittway Sàrl and its affiliated companies and is protected by copyright and other international laws. Reproduction or improper use without specific written authorization of Pittway Sàrl is strictly forbidden.