



Thermal actuators

Thermot

Description

The Thermot is a small actuator for electrical on/off control, designed to operate M30 x 1.5 valves and floor heating manifolds. The Thermot range includes actuators for 24 V (SELV*) or 230 V supply, available in both normally closed (NC) and normally open (NO) versions (valve positions with no supply voltage to the actuator). Each actuator is equipped with a visual position indicator to show whether the valve is open or closed. The Thermot (M30x1.5) can be connected to Heimeier, MNG, and Oventrop valves. Other valves must be verified individually to ensure correct valve closing dimensions and valve top geometry.

*SELV = Safety Extra Low Voltage

Features & benefits

- Available in Normally Closed (NC) and Normally Open (NO) versions
- Red clip (NC) for easy identification and installation
- Fast and simple installation
- Visual position indicator
- Compatible with M30 x 1.5 valves and floor heating manifolds
- Energy efficient – only 2W running power consumption

Applications

The product range covers actuators for 24 V (SELV*) or 230 V supply in both normally closed (NC) or normally open (NO) versions (valve positions with no supply voltage to the actuator).

The actuator can be connected to valves with Heimeier/MNG/Oventrop M30x1.5 connection. Other valves must be verified individually to ensure correct valve closing measurement and valve top geometry.

* SELV: Safety Extra Low Voltage

Ordering

Product code numbers

Actuator	Connection type	Supply voltage	Function	Code no.
Thermot	M30 x 1.5 ¹⁾	24 V AC/DC	NC	088H3216
Thermot	M30 x 1.5 ¹⁾	24 V AC/DC	NO	088H3218
Thermot	M30 x 1.5 ¹⁾	230 V AC	NC	088H3220
Thermot	M30 x 1.5 ¹⁾	230 V AC	NO	088H3222

1) Connection to Heimeier, MNG and Oventrop valves with M30x1.5 connection. Other valves must be verified individually to ensure correct valve closing measurement and valve top geometry (see on "Dimensions" chapter).

Product details

General data

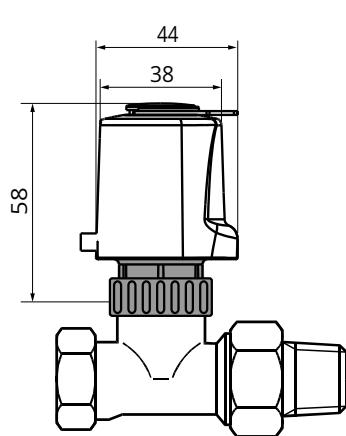
Table: Technical specifications

Power supply	[V]	24 V AC/DC, $\pm 15\%$	230 V AC, $\pm 15\%$
Max. inrush current	[mA]	< 350	< 250
Power consumption	[W]	2	2
Frequency	[Hz]		50 – 60
Control input	On/off & PWM		
Closing force TWA-NC	[N]	110	
Closing force TWA-NO		120	
Closing measurement TWA-K	[mm]	11.8 ± 0.3	
Ambient temperature	[°C]	2 – 60	
Storage and transportation temperature		-40 – 70	
Ambient humidity	95% r.h., non-condensing (according to EN 60730-1)		
Protection class		III	II
Grade of enclosure		IP 41	
Cable length	[mm]	950	
Spindle travel time	[min]	≈ 3	

If the actuator should be a 24 V or 230 V and normally open (NO) or normally closed (NC) depends mainly on the application, control strategy and the controller connected to the actuator.

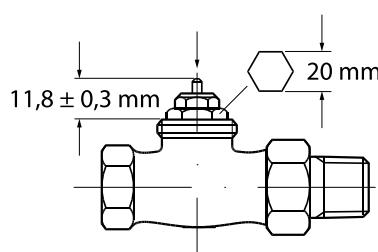
Dimensions

Figure: Thermot dimensions



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088H227

Figure: Closing measurement

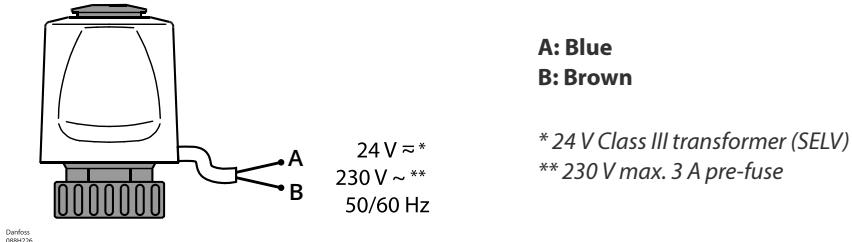


All Dimensions are in mm

Connections

Electrical connection

Figure: Electrical connection



Note: Max 3.15 A pre fuse according to EN 60127 (both for 24 and 230 V versions) for actuator with cord length up to 2 m. If the actuator will be used with a cord length of >3 m and max. 23 m, the protection of the cord/wire (overload, short circuit and mechanical stress) should be assured by a circuit breaker (6 A/characteristic "B") and should be installed in a protection tube or comparable means.

Installation

Mounting

All NC versions are equipped with a red mounting split on the position indicator to secure easy valve connection. When mounted this split must be removed for correct operation.

Figure: Hand tighten only!

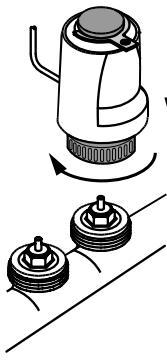


Figure: Remove split (NC only)

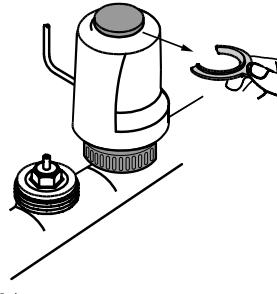
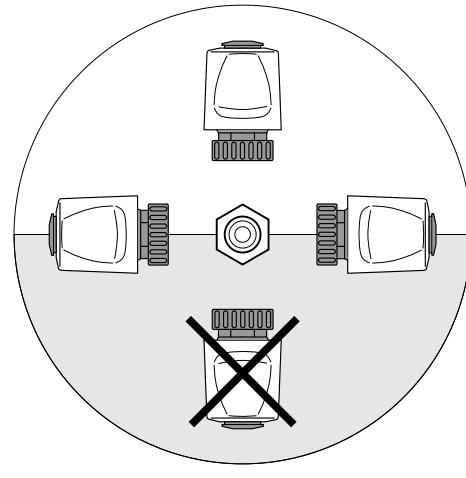


Figure: Mounting positions



Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Export Control Declaration	<u>Actuators</u>	Danfoss	
EU-UK Declaration	<u>Danfoss EU-UK VJSBU102.06</u>	Danfoss	LVD

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