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Heating actuator, 6-gang with controller for Gira One and KNX

Specification	Order No.	Packing unit	PS	EAN
 DRA	2139 00	1	66	4010337110194

Features

Function in the Gira One system

- Single-room control possible through fixed controller and valve output pairing.
- Actuator for switching thermal servos in heating and cooling systems.
- The outputs are short-circuit and overload-protected.
- Servos with 24 V or 230 V rated voltage can be actuated.
- Manual actuation of the outputs.
- Heating requirement notification, e.g. on a heat pump in combination with a switching actuator, 1-gang 16 A with binary input, 3-gang (Order no. 5061 00) or switching actuator, 2-gang/blind actuator, 1-gang 16 A with binary input, 3-gang (Order no. 5062 00)
- Programming and start-up with the Gira Project Assistant (GPA), from version 5.0.
- Encrypted data transfer between the Gira One devices.

Valve outputs

- 6 independent electronic valve outputs.
- Valve control with the characteristic “de-energised open” or “de-energised closed” can be parameterised for each output.
- Protection against jammed valves by means of smart flushing with a duration of 5 minutes and a cycle of 1 week.
- Boost function for rapid heating of radiators – devices (electric or water-fed).

Room temperature controller

- 6 independent controllers for heating and cooling mode, optimised for the respective heating and cooling system: Floor heating (electric or hydronic), radiators (electric or hydronic), floor cooling
- Heating control type can be set. Continuous PI control or switching 2-point control.
- Operating modes: Comfort, standby, night-time reduction, and frost/heat protection.
- Automatic heating/cooling requirement notification: for this, the actuator continuously evaluates the corrected variables of the assigned outputs and informs the Gira One system if there is a heating/cooling requirement at an output or in a heating/cooling circuit. The connected switching actuator closes or opens its relay depending on the heating/cooling requirement notification. This enables burner and boiler controllers, which possess appropriate control inputs, to be controlled in an energy-efficient manner (e.g. switching between the reduction and comfort setpoint in a central condensing boiler or heat pump according to requirement).
- Limit value specification for floor temperature.

Illustrations are similar and may deviate from originals.

- Manual or automatic window-up detection in the event of a drop in temperature, including specification of the duration of frost protection.
- Window contact query and visualisation in the Smart Home App: An opened window will result in the activation of the frost protection heating mode after a 5 minutes has elapsed.
- Query regarding a heating/cooling switchover, e.g. via the binary input of a heat pump, to allow the current operating mode (heating or cooling) to be forwarded to the heating controller.

Function in the Gira KNX system

- Heating actuator with integrated room temperature controller for controlling thermal servos for heating and cooling systems.

Valve outputs

- 6 independent electronic valve outputs.
- Valve output 1 can be used as a template for other valve outputs.
- Notification for largest actuator variable is configurable.
- Servos with 24 V or 230 V rated voltage can be actuated.
- Valve control (open/closed while de-energised) can be configured for each output.
- Variable input: "switching - 1 bit" and "continuous - 1 byte".
- Valve control: "switching - 1 bit", "continuous - 1 byte PWM" or "continuous - 1 byte variable limit".
- Status feedback is configurable.
- Failure notification for valve operating voltage is configurable.
- Overload and short-circuit notification can be set separately for each valve output.
- Heat demand and pump control. Anti-jamming prevents the pump from jamming.
- Summer or winter operation can be selected via an object.
- Each valve outlet can be locked in a forced position. Different corrected variable values can be parameterised for summer and winter mode.
- Cyclical monitoring for variable of each output.
- Automatic valve flushing.
- Operating hours counter configurable for each output.
- Service operation for the maintenance or installation of valve drives.
- Manual actuation of the outputs independent of the KNX.
- Reactions in the event of bus voltage failure and recovery can be set for each valve output following an ETS programming process.
- A range of actively transmitting status messages can be delayed globally after a bus voltage recovery or after anETS programming process.

Room temperature controller

- 12 independent room temperature controllers.
- Room temperature controller 1 can be used as a template for other room temperature controllers.
- Operating modes: Comfort, standby, night, and frost/heat protection.
- Each operating mode can be assigned its own setpoint temperature values.
- Setpoint temperature specification: relative (derived from basic setpoint) or absolute (separate setpoint temperatures for each operating mode).
- Automatic transmission and cycle time for corrected variable output can be parameterised.
- Presence detection using presence button or presence detector.
- Switchover of operating modes according to KNX specification.
- Frost/heat protection changeover via window status or temperature drop detection.
- Operating modes: “Heating”, “Cooling” and “Heating and Cooling” respectively with or without additional stage.
- Various control types can be configured according to the heating or cooling level: PI control (constant or switching PWM) or 2-point control (switching).
- Different types of heating and cooling can be set.
- Control parameters for PI controller (proportional range, reset time) and 2-point controller (hysteresis) can be set.
- Automatic and object-oriented switching between "Heating" and "Cooling".
- Variable outputs can be disabled via objects.
- Room temperature measurement using up to two external KNX temperature sensors. Measured value generation by external sensors configurable or cyclic monitoring.
- The actual and setpoint temperatures can be output to the bus (incl. cyclical) after a parameterisable deviation.
- Separate or shared variable output in heating or cooling mode (4-pipe or 2-pipe system).
- Variable limitation is possible.
- Floor temperature limitation possible in heating mode and cooling mode.
- Setpoint temperature limitation possible in cooling mode.

- Setpoint temperature increase possible in heating mode.
- Boost function for faster heating and cooling.
- Scenes: Up to 64 internal scenes can be configured per controller. Incl. scene memory function and extended scene retrieval (toggling scenes).

Logic functions

- The device has 8 internal logic functions.
- Logic gate (AND, OR, exclusive AND, exclusive OR, each with up to 4 inputs).
- 1-bit to 1-byte converter with input filter, blocking object and specification of output values.
- Blocking element with filter and time functions and blocking object.
- Comparator for values with 9 different input data formats and many comparison operations.
- Limit value switch with hysteresis with upper and lower threshold value for 9 different input data formats.Incl. specification of the 1-bit output values.
- The logic functions have their own KNX communication objects and can process telegrams from the actuator or other bus devices.

Technical data

Gira One Medium:	Twisted pair (TP),YCYM 2 x 2 x 0.8
Test voltage:	4 kV (KNX/EIB bus line)
Outputs:	6
Controller:	6
Contact type:	Triac
Switching voltage:	AC 24/230 V, 50/60 Hz
Switching current:	5 to 160 mA
Switch-on current:	1.5 A (2 s) max
Number of drives per output - AC 230 V drives: - AC 24 V drives:	 4 2
Connection cross section:	Max. 4 mm²
Ambient temperature:	-5 °C to +45 °C

Notes

- Can be updated via the Gira Project Assistant (GPA).

Scope of supply

- KNX connection and junction terminal included in the scope of supply.

Dimensions

Modular width (MW):	4