

Compact weather-compensated controller AHC40

Presentation



AHC40 is a compact weather-compensated heating controller, installed in the actuator housing. It provides a direct installation onto more than 20 mixing valves of different manufacturers.

The controller may also be used without the outdoor sensor, but in that case, the room unit must be used.

Typical application

- The AHC controller is used in demanding room heating and cooling systems as an extension controller (it is possible to link several controllers into a complex system with a BUS connection).
- For controlling simpler heating systems with one mixing heating circuit system.

Features

- 2 preset hydraulic schemes.
- For a simpler configuration and monitoring of its operation, it features a graphic capacitive OLED touch screen.
- Innovative connector system for sensor connection.
- Possibility of connecting 1 room unit.
- Remote control option with the help of the SeltronHome system.

Description of settings buttons



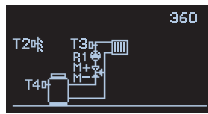
- 1 - Graphic display.
- 2 - Manual operation clutch.
- 3 - ← Move backwards.
- 4 - - Move to the left, reducing.
- 5 - ✓ Entry into the menu, confirmation of selection.
- 6 - + Move to the right, increasing.
- 7 - ? Help.
- 8 - LED indicator - valve movement to the right.
- 9 - Red-coloured LED indicator - error.
- 10 - LED indicator - valve movement to the left.

Typical application	AHC40
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For controlling simpler heating systems with one mixing circuit	•
Technical characteristics	
No. of preset hydraulic schemes	2
No. of room units	1
No. of mechanical relays	1
No. of temperature sensor inputs	4
BUS option - the interconnection of AHC controllers and connection with other Seltron heating controllers	•
System control	
Heating system with radiators	•
Floor heating system	•
Convector heating system	•
Wall and ceiling heating systems	•
Heating circuits control	
Mixing heating circuit	•
User functions	
Room heating or cooling according to the time programme	•
PARTY function - activation of the comfort operation mode	•
ECO function - activation of the economy operation mode	•
HOLIDAY function - activation of the operation mode during the holiday season	•
BOOST function for intense room heating	•
Function for screed drying	•
Heating system protection	
Storage tank overheating protection	•
Boiler overheating protection	•
Periodic starting up of pumps and mixing valves during a period of inactivity	•
Limiting the maximum supply temperature for floor heating	•
A comprehensive overview of the heating system operation	
Graphic display of temperatures according to days of the last week	•
Detailed display of temperatures for the current day	•
Notifications on the activated protection functions and warnings about system failures	•
Remote access	
With a separate dedicated cable, the controller can be connected to a computer	•
Connectivity to the SeltronHome platform providing remote control using a smartphone or tablet	•
Setup and installation	
Wizard for an easy and quick device start-up	•
11-language user interface	•
Languages: EN, DE, FR, NL, PL, ES, SL, IT, CS, HR, RU	
Connector system for sensor connection	•
Setting up the operation by selecting the hydraulic scheme	•
"Help" button for quick help with the setup	•
Graphically adjustable time programmes	•
Adjustment of the mixing valve turning direction	•
Logging and display of changes made to the setup	•
Option for retrieval of the basic setup in the event of data loss or unwanted changes	•
Option of installation onto different types of mixing valves	•

Outlined functions



Step 1



Step 2



Step 3

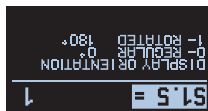


Step 4

Start-up wizard

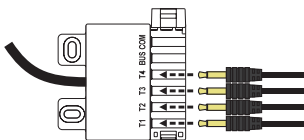
The AHC controller is equipped with a start-up wizard, which takes you through the initial setup of the controller in 3 steps.

- Step 1:** language selection.
- Step 2:** hydraulic scheme selection.
- Step 3:** heating curve slope selection.
- Step 4:** selection of opening direction of the mixing valve.



Setting the display orientation

The AHC controller is equipped with a 1.3" OLED display. In the controller setup, you can choose between the normal orientation of the display or the orientation of the display with a rotation of 180 °.



Innovative connector system for connecting temperature sensors

The controller is supplied with sensors with various coloured connectors installed. Make the connection by simply inserting the connector into the appropriate unit on the socket. In order to prevent an incorrect connection, the plug-in locations have the same colours as the connectors.



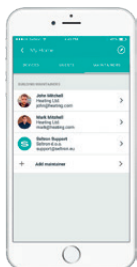
Direct installation onto more than 20 mixing valves

The controllers are available with suitable accessories, which enable direct installation onto more than 20 mixing valves of different manufacturers.



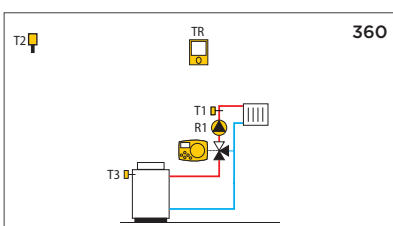
Possibility of operation without the outdoor sensor

The AHC heating controller features the operation without the outdoor sensor. The room unit must be installed in order to assure correct functioning of the controller. The controller receives information on the actual temperature in the room from the room unit and adapts heating based on this information.



Remote control with the help of SeltronHome system

The AHC controllers may be connected to the SeltronHome platform, which provides the heating remote control using a smartphone or tablet. Remote control is enabled through the CLAUSIUS application for the end user and the KELVIN app for service technicians.

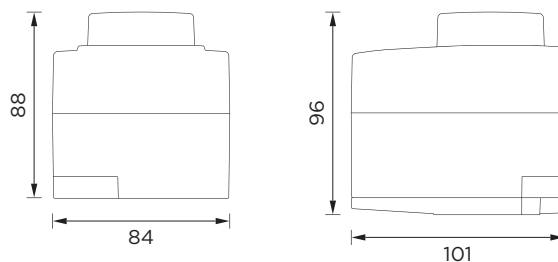


Typical hydraulic scheme

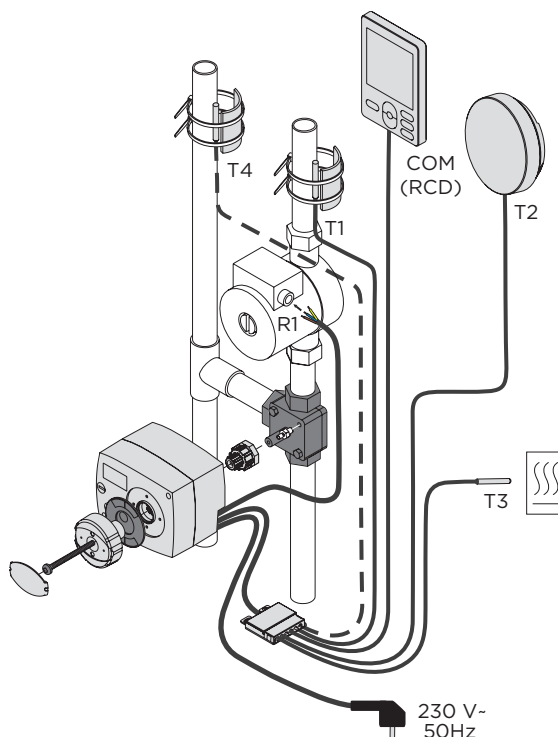
Independent system, mixing circuit.
Example: 360 hydraulic scheme.

Technical specifications	AHC40
OLED graphic display and touch keys	•
Weekly program timer	•
Own consumption	Max. 3.5 W
Energy consumption in the standby mode	Max. 0.25 W
Torque	6 Nm
Running angle	90 < °
Running speed	2 min / 90 < °
Operation mode	3-point PID
Relay outputs	1 (1) A, 230 V-
Connection voltage	230 V-, 50 Hz
Max. own consumption	3.5 W
Clock power supply	Battery CR2032 (Li-Mn) 3 V
Clock accuracy	+/- 1 s (24 h) at 20 °C
Degree of protection	IP20 according to 60529
Safety class	I according to EN 60730-1
Type of temperature sensors	Pt1000
Housing material	PC - black transparent
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 65 °C
Product weight	650 g
No. of pieces in the packaging unit	12 pcs

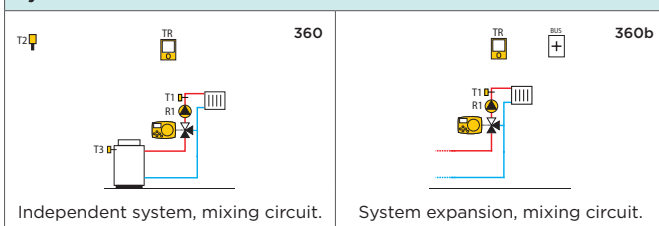
Dimensions



Electrical connection



Hydraulic schemes for AHC40



Item	Order code	Description
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1AHC40112020-050	Compact heating controller SELTRON AHC40 with sensors (1×AF/Pt, 2×TF/Pt)
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Accessories

1ASCAVMSA000+NNO	Seltron, Acaso, Brv, Esbe, Hora, Imit, Imp, Ivar, Paw, Somatherm, Wip (5Nm) (basic version for AVC05)
1ASCAVMSB000+NNO	Seltron, Acaso, Brv, Esbe, Hora, Imit, Imp, Ivar, Paw, Somatherm, Wip (10Nm+) (basic version for AVC10 and AVC15)
1ASCAVMSC000+NNO	Centra - type DR/ZR
1ASCAVMSD000+NNO	Centra - type DRU
1ASCAVMSE000+NNO	Landis & Gyr, Siemens - type VBI, VBF
1ASCAVMSF000+NNO	Meibes, Wita
1ASCAVMSG000+NNO	Esbe VRG
1ASCAVMSH000+NNO	Firšt
1ASCAVMSI000-NNO	Honeywell - type V5442.., type V5433..
1ASCAVMSJ000-NNO	Paw K32, K33, K34
1ASCAVMSK000+NNO	Danfoss HRB3
1ASCAVMSM000-NNO	Ball valve ISO5211, F03, L (9 mm)
1ASCAVMSN000-NNO	Ball valve ISO5211, F03, L (11 mm)
1ASCAVMSO000-NNO	Ball valve Belimo R2..xx-S.., F04, L (10 mm)



1TFPTC1MP-000	Immersion temperature sensor SELTRON TF/Pt, 1 m cord, with a 3.5 mm connector
1TFPTC3MP-000	Immersion temperature sensor SELTRON TF/Pt, 3 m cord, with a 3.5 mm connector



1AHCAEBUS-000	Set for the BUS connection with another controller AHC
1AHCAECOM-000	COM - Set for the connection of the outdoor sensor and room unit



1RCD2W-050	Digital room unit SELTRON RCD2, white
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1GWD2-040	Communication module SELTRON GWD2
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