

Front view



Cold location controller for installation in refrigeration units or control cabinet doors



Features

- Suitable for all cold location types, such as cold rooms and refrigeration units
- Superheating and modulated temperature control in combination with separate EEV-Modul
- Connection for 3 temperature sensors (supply air, return air and limit sensor)
- Weighting of 2 control sensors
- 2nd setpoint and independent day/night changeover
- Input for door contact switch with adjustable timed cooling interruption
- Flash freezing function
- Circulated air defrost, electric defrost, hot gas defrost and cool gas defrost
- Synchronised defrosting of several cold location controllers
- Defrosting at fixed times or by cyclical interval
- Thermostatic fan control
- Fan control with run-up and run-down function
- Operation-dependent fan control via analogue output with adjustable speeds
- Oscillation protection and runtime monitoring
- Compressor protection activated via digital input
- 3-point control, e.g. for heating function
- Temperature control with external frequency converter (FC)
- Built-in real-time clock with power reserve
- Large data memory for temperature list
- Quick installation
- Direct connection of a CAN-USB to the service socket
- Connection to the Wurm system via Wurm CAN communication bus (C-BUS) and FRIGODATA XP

Writing conventions

 CAUTION	Avoid the described hazard: Otherwise, minor or medium bodily injury or property damage will result.
 WARNING	Avoid the described hazard: Otherwise there is danger from electric voltage that can lead to death or serious bodily injury.

For your safety

For safe operation and to avoid personal injury and equipment damage through operator error, always read these instructions, become familiar with the device, and follow all safety instructions on the product and in this document, as well as the safety guidelines of Wurm GmbH & Co. KG Elektronische Systeme. Keep these instructions ready to hand for quick reference and pass them on with the device if the product is sold.

Wurm GmbH & Co. KG Elektronische Systeme accepts no liability in the case of improper use or use for purposes other than the intended purpose.

Target group	These instructions are intended for professional service technicians.
Intended use	The device is installed for and serves the purpose of controlling the temperature of a cold location to an adjustable setpoint.



WARNING

Danger to life from electric shock and/or fire!




- Switch off the power to the entire plant when carrying out installation, wiring or disassembly work! Otherwise, mains voltage and/or external voltage may still be present, even if the control voltage is switched off!
- The wiring of the device must be carried out only by qualified electricians!
- Use the correct tools for any work!
- Check the entire wiring after connection!
- Observe the maximum loads for all connections!
- Never expose the device to moisture, for example from condensation or cleaning agents!
- Stop operating the device if it is faulty or damaged and its safe operation is compromised!
- Do not open the device.
- Do not repair the device yourself! If the device requires repairs, send it in with an exact description of the fault!



CAUTION

Electromagnetic interference may cause faults!

- Always use shielded data cables and place them far away from power lines.

	Wurm Infocenter 	paperless info 
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Version and validity of the documentation

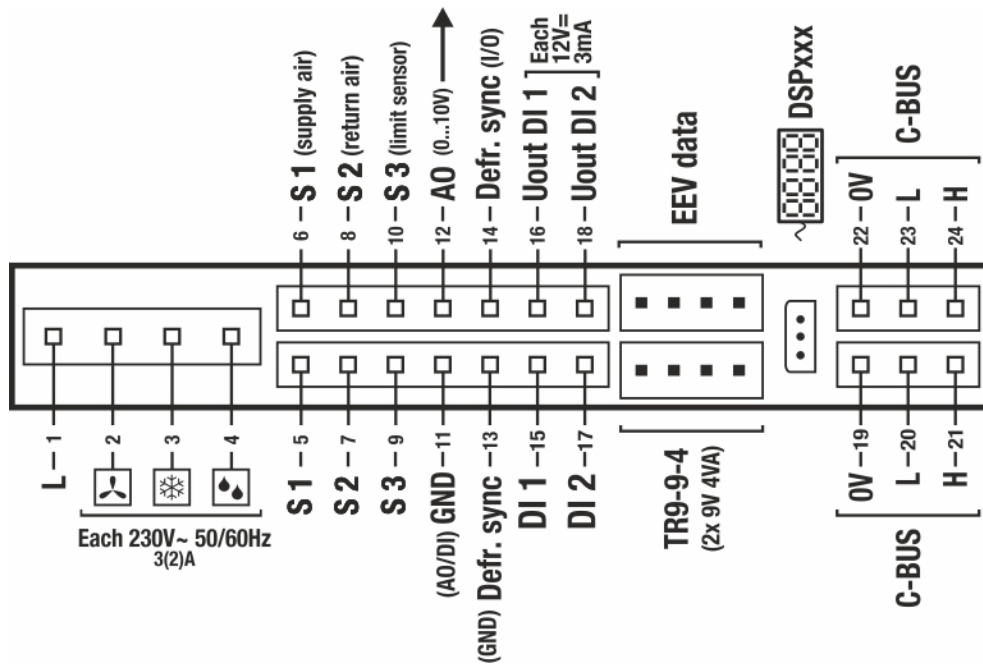
Version	Date	
V4.1.0	2024-01	Documentation status

Any versions not listed are special solutions for individual projects and are not described in detail in this document. This document will automatically cease to be valid if a new technical description is issued.

Manufacturer: Wurm GmbH & Co. KG Elektronische Systeme, Morsbachtalstraße 30, D-42857 Remscheid

For further information, see our website at www.wurm.de

Circuit diagram



Installing

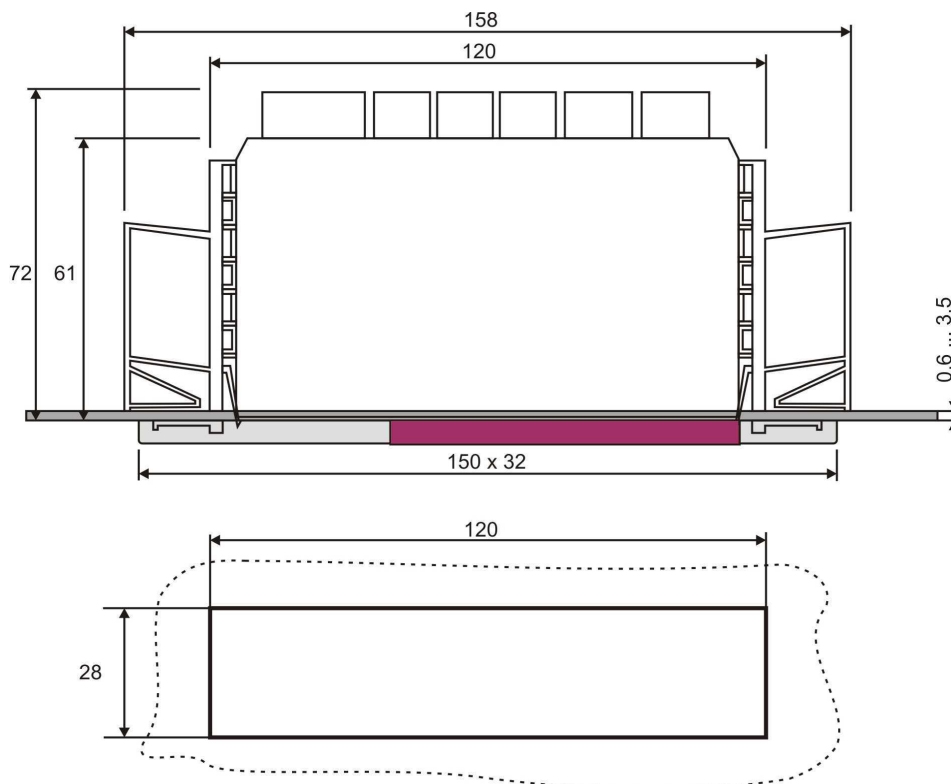


WARNING

Danger to life from electric shock and/or fire!

- Switch off the power to the entire plant before installing. Otherwise, mains voltage and/or external voltage may still be present, even if the control voltage is switched off.

Housing dimensions and installation section



Product information

CRD-XP installation

The CRD-XP controller is mounted in the refrigerator unit or control cabinet door.

1. Attach the frame clips on the left and right of the installation frame wall.
2. Connect the controller wires.
3. Place the controller on the guide rails of the frame clips and push it into the installation frame.
4. Align the sealing frame in the back of the front panel and press in firmly.
5. Place the front panel with sealing frame on the controller.
6. Press the front panel in until it is heard to engage.



Technical data

Power supply	Via transformer TR9-9-4
Digital inputs	2 x floating (multifunction inputs)
Temperature sensor	3 x TRK277/7 PLUS, DGF, T20015, K243
Output relays	1 x fan, normally open contact, 230V~, 3(2)A 1 x cooling, normally open contact, 230V~, 3(2)A 1 x defrost, normally open contact, 230V~, 3(2)A The total current of these output relays must not exceed 12A.
Communication	3-conductor CAN bus interface with integrated power supply, galvanically isolated, service socket
Communication EEV data	4-conductor RS485 interface with power supply, galvanically isolated
Analogue output	1 x 0...10V=, non-floating, short-circuit proof
Minimum load resistance	2.5kΩ / 10kΩ
Accuracy	<3% / <1%
Connections	Spring-loaded terminals
Housing	Plastic
Dimensions	(W x H x D) 158 x 32 x 75mm
Fastening	In the installation cut-out with holding clips and sealing frame (120 x 28mm)
Ambient temperature	Operation: 0...+55°C, storage: -25...+70°C
Weight	About 150g
CE conformity	- 2014/30/EU (EMC Directive) - 2014/35/EU (Low Voltage Directive)
	RoHS II

CE