Front view

Features

- 4 capacity steps for different compressor types:
  - Equally or unequally graduated compressors
  - 1-, 2- or 3-step compressors
  - With or without cylinder lift
  - Same compressors with a constant compressor via CFU
- Extendable by 4 capacity steps with one additional DCC-XP
- Compressor downtime monitoring and rack downtime monitoring
- Base load change according to run time and switching frequency
- Operating hours counter for each compressor step
- Peak load shedding and Fastreturn
- Operating mode for controlling compressor output through voltage input
- Suction pressure increase through switch contact
- Constant condensation pressure control by speed regulator or ADC multiple contact switch
- Cyclical forced start-up for condenser fans
- Peak load limiting
- Temperature sensor TRK277/7 PLUS for outside temperature guided condensation setpoint, for suction gas monitoring or temperature documentation, with/without failure monitoring as desired
- Display of current operating status of the refrigeration plant
- 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

Symbol	Meaning
⚠ **CAUTION**	Avoid the described hazard: otherwise **minor** or **medium** physical injury or damage to property will result.
⚠ **WARNING**	Avoid the described hazard: otherwise there is danger from **electric voltage** that could lead to death or **serious** physical 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 “service technicians”.
Intended use	The DCC-XP is a rack control with integrated condensation pressure control.

⚠ **WARNING**
Danger to life from electric shock and/or fire!

- Switch off the power to the entire plant when carrying out installation, wiring or removal work. Otherwise a mains voltage and/or external voltage may still be present even if the control voltage is switched off. Always remove both power plugs (L and N).
- The wiring of the device must be carried out only by qualified electricians.
- Use only the correct tools for all work.
- Check all wiring after connection.
- Take note of the maximum loads on all connections.
- Never expose the device to moisture, for example due to condensation or cleaning agents.
- Take the device out of operation if it is faulty or damaged and is therefore compromising safe operation.
- 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.

Wurm Infocenter paperless info

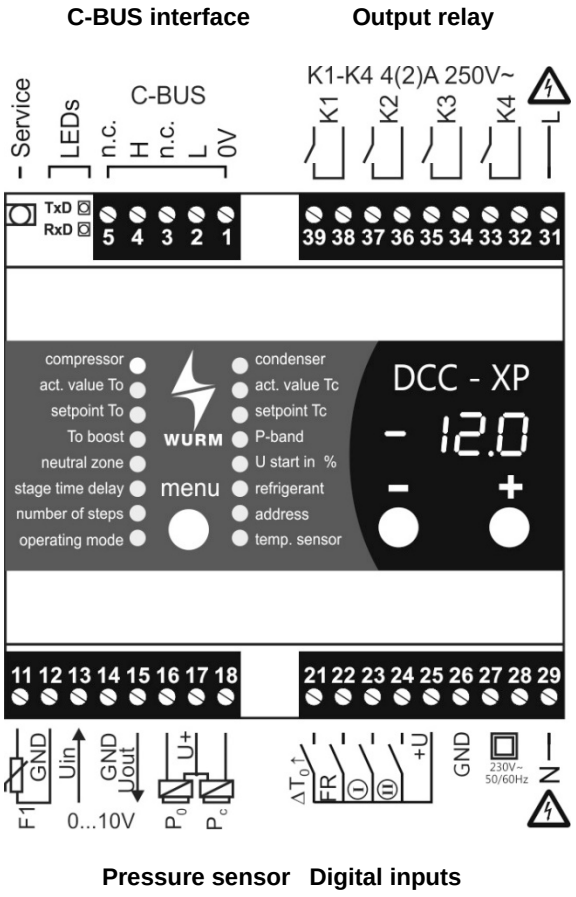
Software revisions and validity of documentation

Software version		
V6.5.0	2021-08	Documentation status

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

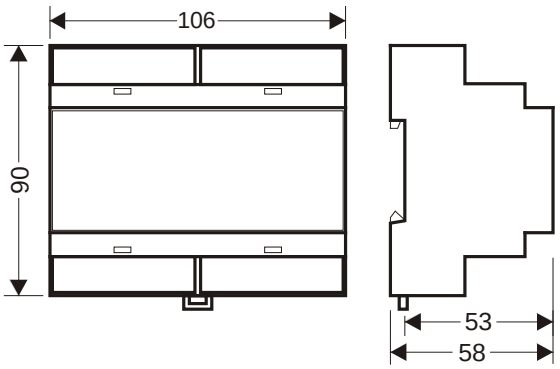
Manufacturer: Wurm GmbH & Co. KG Elektronische Systeme, Morsbachtalstraße 30, D-42857 Remscheid. See our website for more details www.wurm.de

Circuit diagram

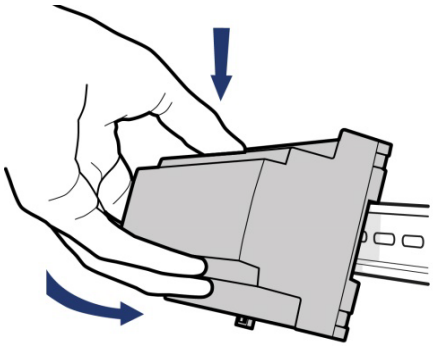


Installing and connecting

⚠	**WARNING** **Danger to life from electric shock and/or fire!** ▪ Switch off the power to the entire plant when carrying out installation, wiring or removal work. Otherwise a mains voltage and/or external voltage may still be present even if the control voltage is switched off. Always remove both power plugs (L and N).



This device is designed for top-hat rail installation. The housing is a standard size and is also suitable for installation in fuse boxes.
The devices can be positioned next to one another without gaps.



Place the device with the upper guide edge on the top-hat rail.
Then press the device gently downward until it engages with the fastening safety catch on the top-hat rail.

For wiring of the data lines, we recommend the use of standard telephone lines 2x2x0.8ø up to lengths of 100m. The shielding must be grounded in the control cabinet. For cable lengths from 100m to 400m, shielded lines with braided sheathing should be used.
We recommend the use of shielded cables for sensor extension.

Cable length	Cross-section
Up to 100m	0.75mm²
Up to 400m	1.5mm²

Technical data

Power supply	230V~, +10% / -15%, 5VA approx.
Pressure sensor	p_0: -0.5...7bar (corresponds to 4...20mA); p_c: 0...25bar (corresponds to 4...20mA)
Temperature sensor	TRK277/7 PLUS
Control input	0...10V= (for output control in voltage control operating mode)
Digital inputs	Inputs for floating contacts: 1 x setpoint increase (ΔT_0), 1 x Fastreturn (FR) 2 x peak load shedding (I and II) of which 1 x multifunctional input (II)
Output relay	4 x normally open contact, 230V~, 4(2)A, rated voltage 230V~
Analogue output	0...10V=, non-isolated, max. load 10mA, for connection of ADC (multiple contact switch), speed regulator or frequency converter for condensation pressure control
Central unit	Single-chip microcomputer, data memory
Monitoring system	Monitoring of connected sensors, Self-monitoring of data memory and microcomputer
Communication	3-wire CAN bus interface with integrated power supply, galvanically isolated, service socket
Dimensions	(WxHxD) 106 x 90 x 58mm (DIN 43880)
Fastening	Top-hat rail TH 35-15 or TH 35-7.5 (DIN EN 60715)
Ambient temperature	Operation: 0...+55°C, storage: -25...+70°C
Weight	About 450g
CE conformity	– 2014/30/EU (EMC Directive) – 2014/35/EU (Low Voltage Directive) CE
EAC conformity	– TR CU 004/2011 – TR CU 020/2011 EAC
	RoHS II
Valid from	Version 6.5.0