

1 Frigodoc Junior 3

Device for temperature documentation according to the EC Low Temperature Refrigeration Regulation 37/2005 and HACCP

1.1 Front view



Fig. 1: Front view

1.2 Features

- Temperature documentation in connection with 3 standard precision temperature sensors of the TRK277 type
- Designation: EN12830:2018, Wurm GmbH Co. KG, Frigodoc Junior 3, S, 2, I -40°C...+30°C
- Additional 3 digital inputs, e.g. for monitoring cold room doors
- Saves temperatures and events for 400 days
- Individually configurable temperature alarms
- Central alarm output
- Integrated quartz clock with highest precision, 10-year power reserve in case of power failure
- Automatic summer/winter time changeover
- Easy-to-read plain text display
- Intuitive prompting using 3 keys
- Each device with individual identification number
- Switchable terminating resistor
- Degree of protection IP54
- Connection to the Wurm system by communication bus (CAN bus) and FRIGODATA XP

Software revision and validity of documentation

Software version	Documentation status
V1.0 - 2019-05	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
 You can find more information on our website at www.wurm.de.

1.3 Safety instructions

Writing conventions

WARNING



- Avoid the described hazard: Otherwise there is danger from **electric voltage** that can lead to death or **serious** bodily injury.

CAUTION



- Avoid the described hazard: Otherwise **minor** or **medium** bodily injury or property damage will result.

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 case of improper use or use for other than the intended purpose.

Target group	This manual is intended for "service technician" personnel.
Intended use	The Frigodoc Junior 3 temperature registering device is permanently installed and is used for the temperature documentation in food storage and distribution equipment in accordance with the Quick Frozen Directive 37/2005/EC and HACCP. The device must not be installed outdoors nor inside a cold room.

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.
- Only open the device when it is disconnected from the power supply.
- Only qualified electricians are permitted to wire the device.
- Use only the correct tools for all work.
- Install all cables, particularly those carrying dangerous voltage, with sufficient strain relief.
- Only install the device in a power circuit with a circuit breaker which has a trip current of maximum **16A**. It must also be possible to disconnect the device manually using the circuit breaker.
- 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.
- Liquids in the device can cause short-circuits, and can result in the risk of fire, risk of injury or equipment damage. Ensure that no water and no moisture get into the case.
- Take the device out of operation if it is faulty or damaged and is therefore compromising safe operation.
- Do not repair the device yourself. If the device requires repairs, send it in with an exact description of the fault.

CAUTION



HEARING LOSS DUE TO SIGNAL TONE IN CASE OF FAULT!

- Do not put your ear directly on the device for long periods.

DAMAGE TO THE DEVICE FROM IMPROPER HANDLING!

- Do not use any pointed objects for the cleaning. Use a soft cloth slightly moistened with water.
- Do not change the batteries yourself. The battery has soldered connections. Send us the device if the battery is charged.

CAUTION



ELECTROMAGNETIC INTERFERENCE CAN CAUSE FAULTS!

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

CAUTION



INCORRECT INSTALLATION LOCATION CAN CAUSE FAULTS!

- Do not install the device outdoors nor inside a cold room.
- Observe the specified ambient temperature.

CAUTION



1.4 Connection diagram

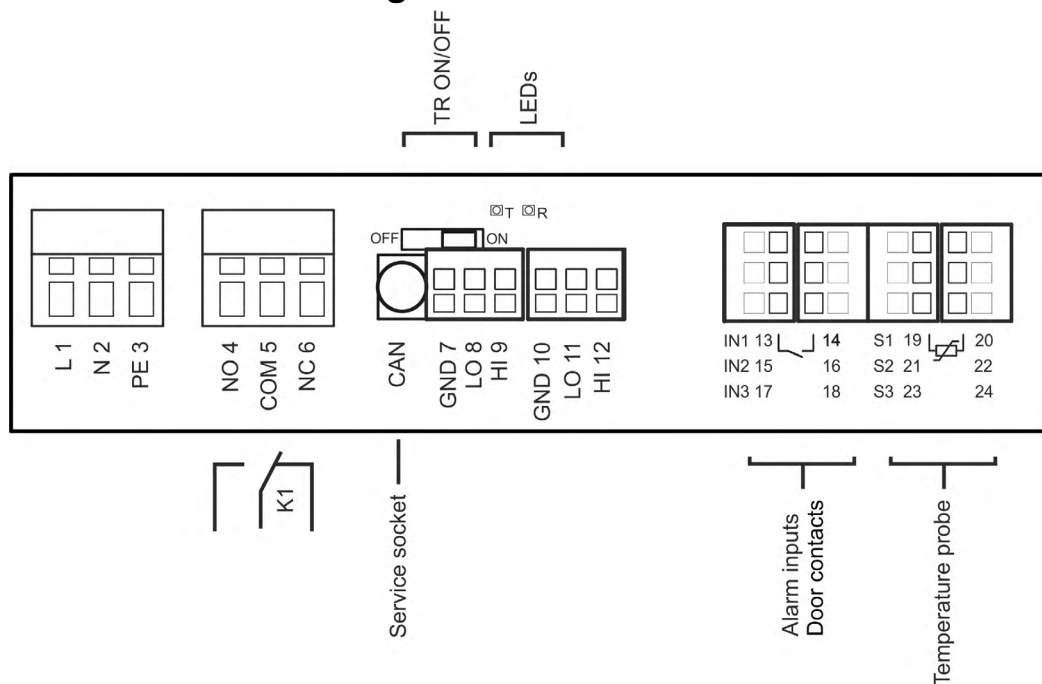


Fig. 2: Connection diagram

1.5 Installing

The device is designed for wall installation.

1. Unscrew the cover underneath the control panel using a screwdriver.
2. For the preparation, punch through the hole markings for the cable feedthrough using a screwdriver.
3. Make two holes in and attach a fixing hook to the wall.
4. Attach the device and fasten using two screws.

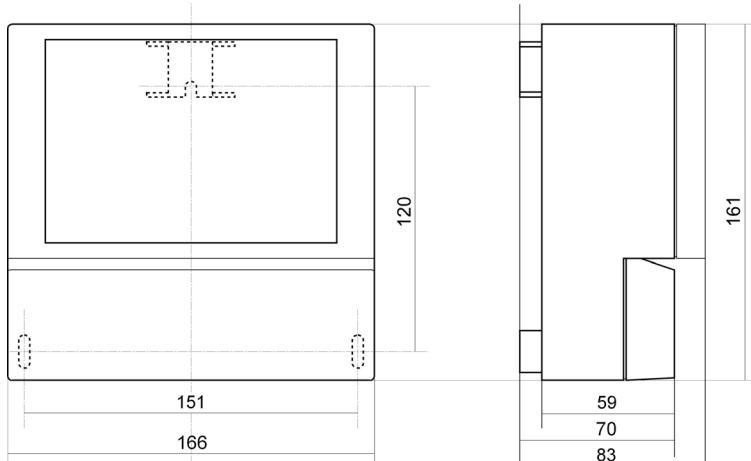



Fig. 3: Dimensions

1.6 Technical data

Power supply	230V~, +10% / -15%, ca. 5VA, 50Hz, ±3Hz
Identification	Device serial number
Temperature sensor inputs	3 x TRK277, S1-S3
Digital inputs	3 x inputs, IN1-IN3 for potential-free contacts of the cold room doors or other alarm signals
Output relay	1 x collective alarm, changeover contacts, 230V~, 4(2)A
Measurement range	-40...+30°C
Accuracy class	2 according to EN12830:2018
Range of application	Temperature registering device for warehouse facilities and fixed installation
Designation	EN12830:2018, Wurm GmbH & Co. KG, Frigodoc Junior 3, S, 2, I -40°C...+30°C
Communication	3-wire CAN bus interface with integrated power supply, service socket, switchable terminating resistor
Real-time clock	Internal quartz clock with highest precision, power reserve in case of power failure, automatic summer/winter time changeover
Display	Plain text display, temperature display resolution: 0.1°C
Operation	3 keys for selecting the recorded temperatures and settings
Data recording	Every 15 minutes for 400 days
Data security	No data are lost in the case of power failure or network faults. Data preservation is > 10 years.
Housing	Plastic
Degree of protection	IP54
Dimensions	(WxHxD) 166 x 161 x 83mm
Weight	About 780g
Ambient temperature	Operation: 0...+55°C, storage: -25...+70°C
CE conformity	- 2014/30/EU (EMC Directive) - 2014/35/EU (Low Voltage Directive) - DIN EN 12830:2018 (temperature registration devices)
	
	RoHS II
Valid from	Version 1.0