

Frost protection compressor For Irrigation unit type I

Manual and instructions (UK)

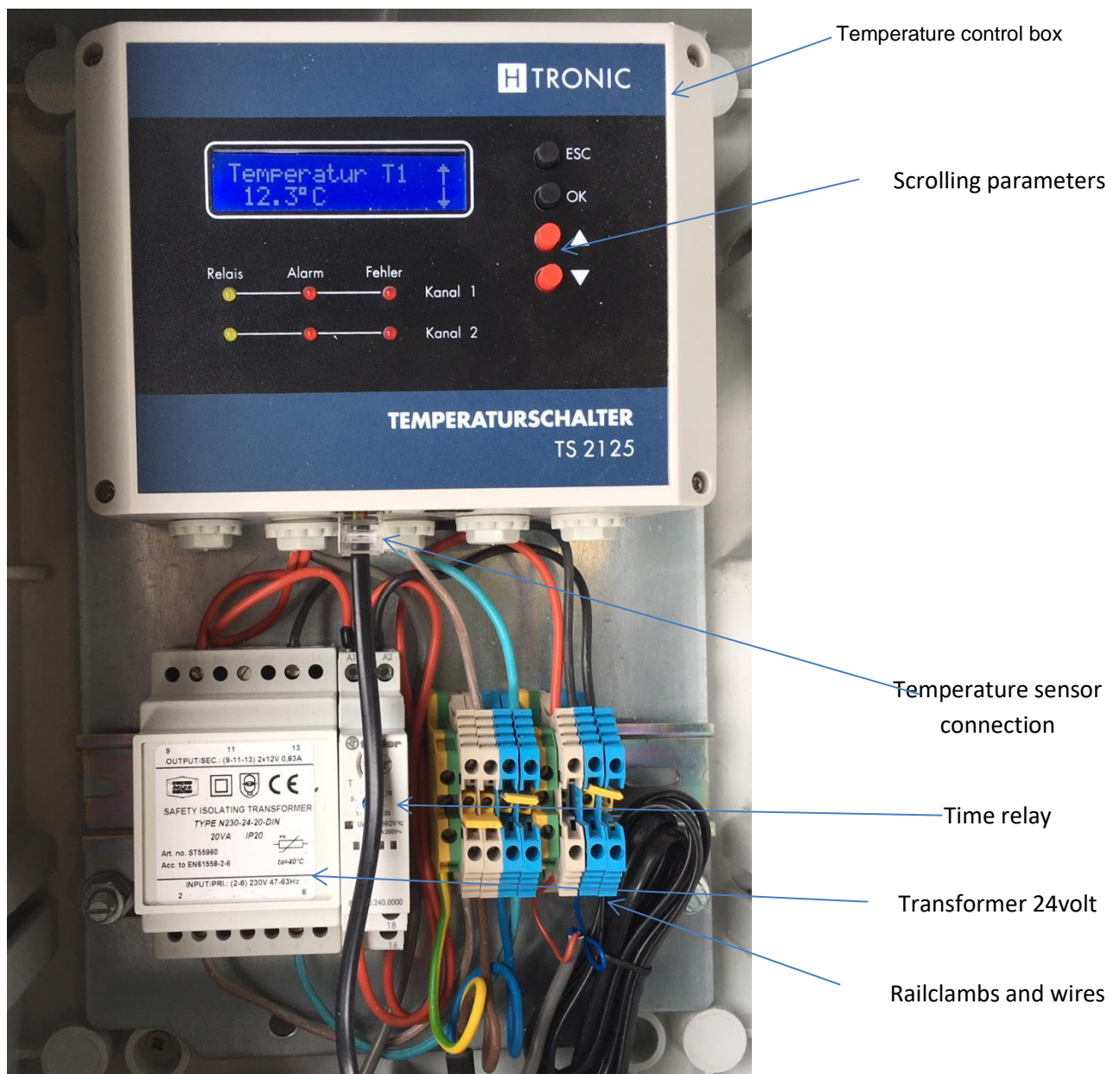
series: I-500/I-1500/I-2500/I-5000Q

Overview:

The frost protection for the Irrigation Unit type I consists of the following components:

- Temperature sensor
- Extension cable for temperature sensor
- Coupling for extension cable for temperature sensor
- Control box with the following:
 - Temperature control box
 - Time relay
 - Rail clamps and wires
- Compressor with airtube
- Compressor connector on irrigation unit

Impression:



Installation:

1. Place the technics in the technical room.
2. Mount the temperature sensor in the outdoors and connect the cable to channel 1 (left) on the temperature control box. If needed, use the coupling and extension cable (standard CAT5e cable).
3. Place the compressor and connect the air hose. Activate the compressor and let it pressurize (may take a few minutes because of the air tank).
4. The frost protection control box is pre-programmed and tested.

How the system works:

- The temperature control box is set to turn on at 2° Celsius.
- The temperature control box is set to turn off at 3° Celsius.
- When the temperature drops below 2° Celsius the following is activated:
 - The automatic irrigation program is interrupted until the temperature is above 3° Celsius again.
 - The time relay is activated and for about 1 minute the outgoing pipes from the technical room to the plants are relieved of water. The time relay settings can be adjusted if needed.
- When the temperature is above 3° Celsius again, the automatic irrigation will be resumed.
- because of the large size of the air tank under the compressor the compressor may not be activated every time. With smaller systems the volume of air in the compressor tank will be enough for multiple activations.
- If desirable a timer may be used with the compressor to avoid activation at specific times (for instance during night time). This is not supplied with the unit.

Setting the system (if change is desired):

- Setting the temperature control box to turn on (standard at 2° Celsius):
 - Open the casing of the frost protection.
 - Press ESC and OK (Beenden)
 - Choose modus: 3 (Termosch. TS1)
 - Go to T1 EIN, set the temperature to turn on here.
 - Scroll down and choose 'modus starten' (start). Press OK to activate again. Press to confirm with OK.
- Setting the temperature control box to turn off (standard at 3° Celsius):
 - Open the casing of the frost protection.
 - Press ESC and OK (Beenden)
 - Choose modus: 3 (Termosch. TS1)
 - Go to T1 AUS, set the temperature to turn off here.
 - Scroll down and choose 'modus starten' (start). Press OK to activate again. Press to confirm with OK.
- Setting the time relais (time the compressor is activated):
 - Open the casing of the frost protection.
 - On the time relais there are two variables: 1. 2seconds/20seconds/1minute/etc. – 2. 0-100%.
 - Choose the 1. time format and followed by 2. percentage.
 - Standard setting is about 1 minute. With larger systems (5+ groups) we advise about 2 minutes.
- Setting compressor pressure:
 - Turn the red knob on the compressor counter clockwise to decrease the outgoing pressure.
 - Turn the red knob on the compressor clockwise to increase the outgoing pressure.
 - Please notice: do not set it higher than 6 BAR!
 - Standard setting is 4 BAR.

Standard settings temperature control box:

- Modus chosen: 3 (Termosch. TS1)
- T1 EIN: 2° Celsius (turn frost protection on setting)
- T1 AUS: 3° Celsius (turn frost protection off setting)
- T1 Alarm min: 2° Celsius (interrupt automatic irrigation program setting)
- T1 Alarm max: 60° Celsius (max. temperature setting)
- T1 Alarm delay: 0h: 0m: 0s (delay alarm)
- Relais zustand bei fehler (error condition): Relais 1: AUS (off)
- Relais zustand bei fehler (error condition): Relais alarm1: AUS (off)
- Piezo (acoustic alarm): AUS (off)
- Scroll down and choose 'modus starten' (start). Press OK to activate again. Press to confirm with OK.

Maintenance:

- Before every winter, please check:
 - the operation of the compressor. Also make sure the compressor is active (orange on/off button).
 - the display of the frost protection; if no error is shown. Press the arrow key up or down until the current temperature is shown. Please make sure this corresponds roughly to the current outside temperature (e.g. by checking current weather). If an error is shown, please contact us.
 - adequate connection of the compressor hose.
- remove condensation from the compressor tank once every year by opening the valve at the bottom of the compressor tank. The condensate will be blown out, make sure you have a bin.
- the compressor is oil-free, so no oil is required.