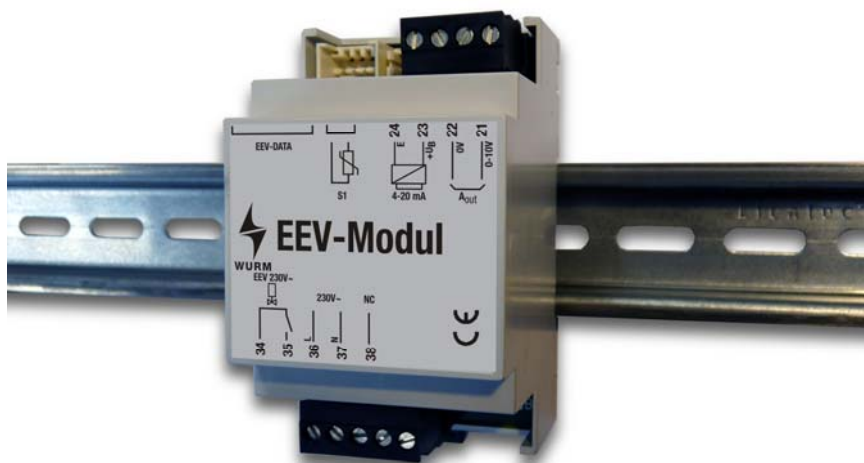**Front view**

Features

- No parameters need to be set
- 1 digital switching channel and 1 analogue voltage output
- 1 input for one temperature probe and 1 input for a pressure transmitter
- Control via date interface of a Frigoentry cold location controller
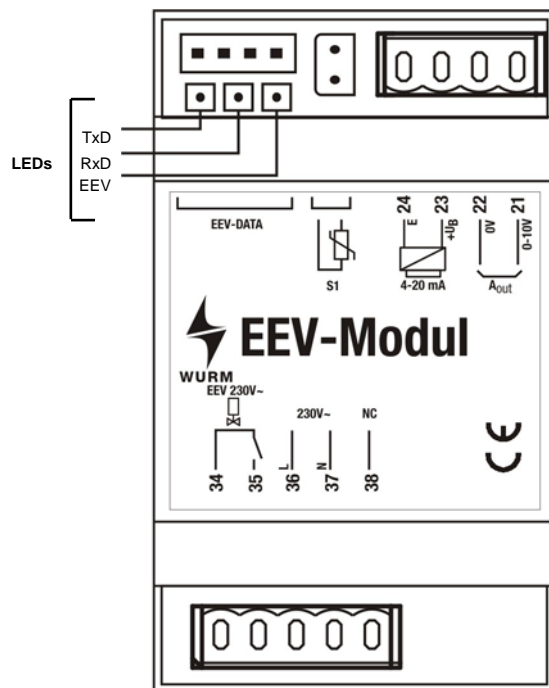
EEV Module
Control module for electronic expansion valves

Contents

1   Circuit diagram

| LED	Status	Significance
TxD	Fast flashing	EEV module transmitting data to the cold location controller.
RXD	Fast flashing	EEV module receiving data from cold location controller.
EEV	Illuminated	EEV being controlled via NO contact on terminal 15.

2   Function

The EEV module communicates with an appropriately equipped Frigoentry cold location controller via the EEV-Data interface. The measured values of the pressure transmitter and temperature probe are transmitted to the cold location controller. The adjustment signals that the EEV module receives from the cold location controller are output on the analogue and digital outputs of the EEV module in order to control electronic expansion valves.

3 Commissioning

Check all of the wiring before commissioning!
The parameter that defines the refrigerant being used is set in the cold location controller.

3.1 Connection diagram
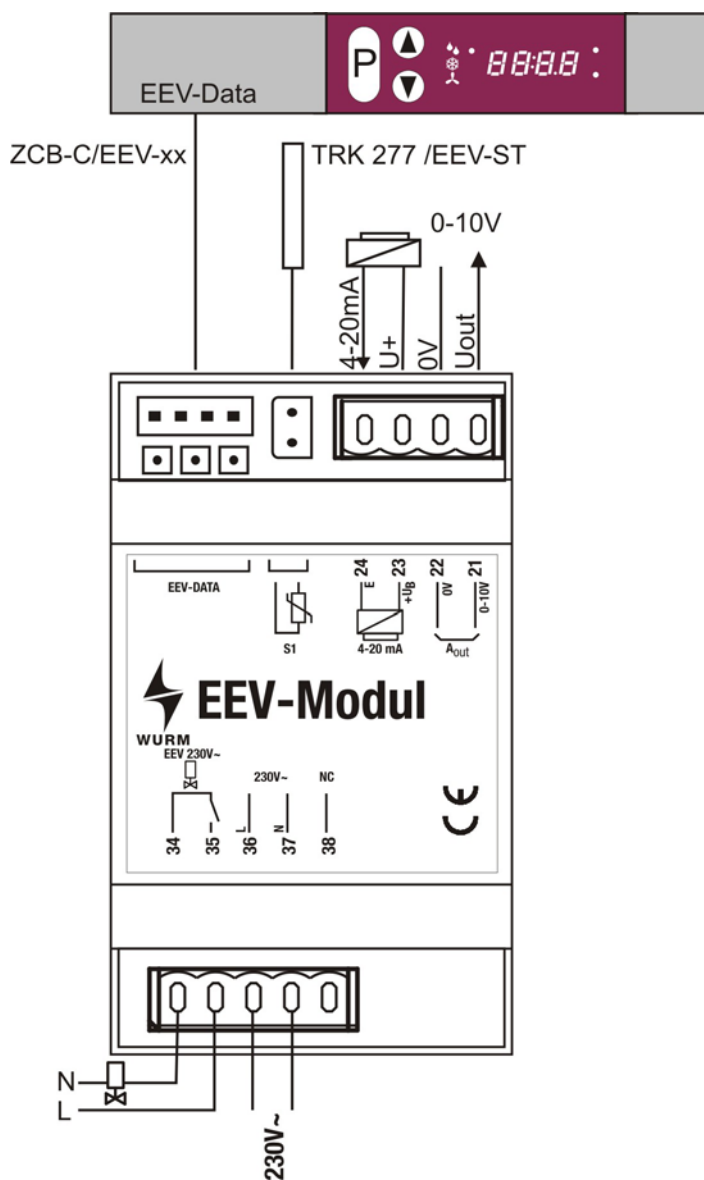
4 Monitoring and emergency program

If communication to a cold location controller fails, then the outputs are controlled with an emergency setpoint. This is set on the cold location controller.

5   Mounting

5.1   Mounting the EEV module

The device is designed for profile rail mounting. The housings are standard size and are also suitable for installation in installation boxes. They can be positioned immediately next to one another and without gaps
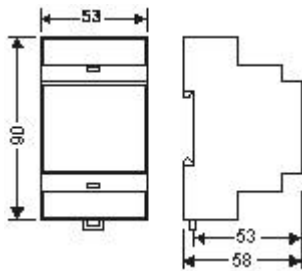

Fig.: Dimensions of the EEV module housing

5.2   Mounting the temperature probe

To ensure reliable operation of the electronic expansion valve, it is important to take special care when mounting the suction gas temperature probe.

Note:
In general, a suction gas temperature probe is installed in exactly the same manner as the sensor cartridges of thermostatic valves. For deep-freeze cold locations, watertight insulation of the probe is absolutely essential. There must be no formation of pads of ice on or around the probe.

Never fasten the suction gas temperature probe with cable straps. Fasten it with a copper strap in the appropriate clock position. The clock position depends on the tube diameter (see fig.: Installing the suction gas probe).

Ensure that the probe is fastened close to the evaporator, but not in a channel where refrigerant could accumulate.
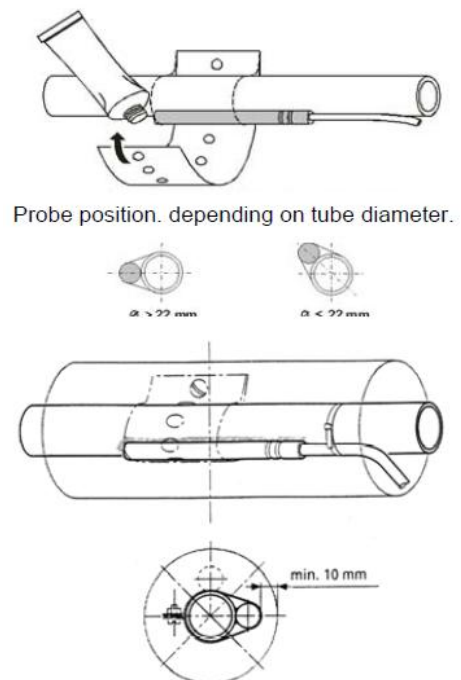

Probe position. depending on tube diameter.

Fig.: Installing the suction gas temperature probe

Probe extension: We recommend the use of shielded cables for probe extension.

Cable length	Cross section
up to 100 m	0.75 mm²
up to 400 m	1.5 mm²

6   Technical data

Supply voltage	230V~ +10% / -15%, approx. 2.6VA
Temperature probe	1 x TRK277 /EEV-ST
Analogue input	4…20mA
Semiconductor relay output	1 x 230V~, 12…60W, integrated semiconductor protection (no isolator) observe minimum power! ⚠
Analogue output	0...10V=, tied to potential, capable of bearing max. 1mA
Central unit	Single-chip microcomputer
Monitoring system	Monitoring of the communication Microcomputer self-monitoring
Communication	Serial interface
Dimensions	(WxHxD) 53 x 90 x 58 mm³, DIN 43880
Mounting	Mounting rail DIN EN 50022 35x15
Ambient temperature	0...+50°C (operation) / -25...+70°C storage
Weight	Approx. 300 g
CE conformity	EC conformity according to - 2004/108/EC (EMC Directive) - 2006/95/EC (Low Voltage Directive)
	RoHS
Validity from	Version 1.1

7   Software Revisions and Validity of Documentation

Any software versions not listed are special solutions for individual projects and are not documented in this description in detail.

The general technical guidelines must be observed.

The validity of this document automatically expires upon publication of a new technical description.

Software version		Function expansion	Page
V1.1	2010-05	Base documentation	