

V/F CONVERTER

Part number: 278 910 310

Adapter module

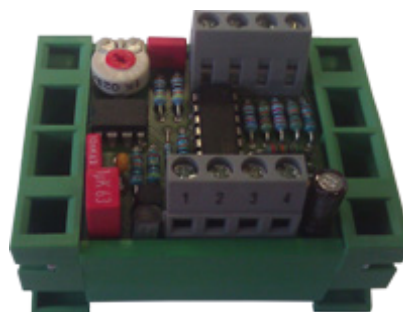
NOTICE

Validity of this document

This document is only valid in combination with the operating instructions of the relevant drive unit and under strict compliance with the safety and warning instructions which they contain. All of the information that is relevant for a safe start-up of this module and the drive unit is only available under these conditions.

Scope of delivery

| | | |
|-----|--------|---------------|
| 1 x | Module | V/F CONVERTER |
|-----|--------|---------------|



Field of use

The module is used to convert analog signals from a potentiometer (0 – 10 V) into pulse signals. These pulse signals can be evaluated by SK 500E ... SK 535E series frequency inverters and can be assigned to various functions. In this way, the frequency inverter can process an additional, i.e. a total of 3 analog signals.

Technical data

Module

| | |
|---------------------|------------------|
| Ambient temperature | -25°C ... +75 °C |
| Protection class | IP00 |

| | |
|-----------------|-------------------------|
| Weight | 50 g |
| Dimensions [mm] | L x W x H: 60 x 45 x 40 |

Electrical data

| | |
|------------------------------|---|
| Electrical connection | Screw terminals |
| Supply voltage | 10 ... 30 V DC |
| Analog signal (input) | 0 - 10 V |
| Pulse signal frequency range | 2 kHz ... 22 kHz (corresponding to 0 ... 10 V) |

| | |
|----------------------|------------------------------|
| Cross-section | 20-16 AWG |
| Connection terminals | (0.5 – 1.5 mm ²) |
| Power consumption | 10 mA (own consumption) |
| Pulse signal voltage | 15 V |

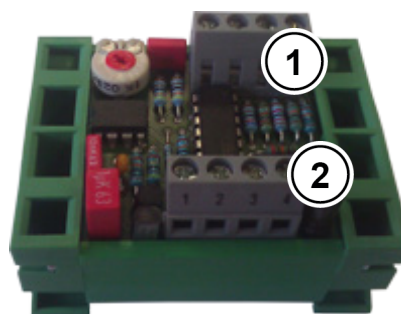
| Technical Information / Datasheet | Unit U/F-Converter | | | |
|-----------------------------------|--------------------|-------|------|----|
| Connection extension | TI 278910320 | V 1.0 | 5114 | EN |

Installation

| | |
|-----------------------|---|
| Installation location | Inside of a control cabinet, in the immediate vicinity of the relevant frequency inverter |
| Fastening | Standard TS 35 mounting rail (snap-on rail according to EN 50022) |

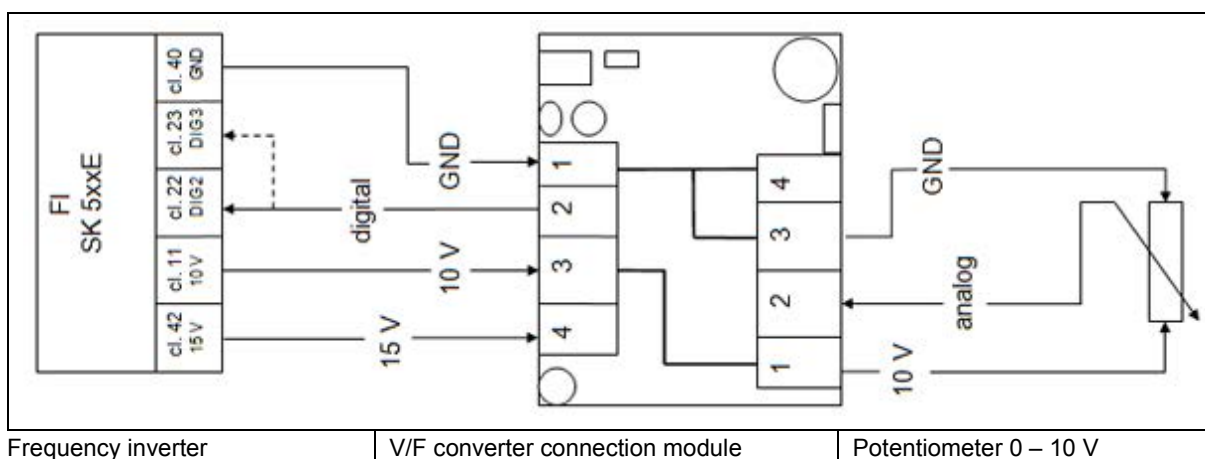
Connections

Connect the signal cable according to the adjacent illustration.



| | |
|----------|--|
| 1 | <p>Potentiometer</p> <p>Terminal 1: 10 V- reference voltage OUT</p> <p>Terminal 2: Analog signal 0 – 10V</p> <p>Terminal 3: GND</p> <p>Terminal 4: GND</p> |
| 2 | <p>Frequency inverters</p> <p>Terminal 1: GND</p> <p>Terminal 2: Pulse output</p> <p>Terminal 3: 10 V- reference voltage IN</p> <p>Terminal 4: Module power supply</p> |

Electrical connection (example)



Parameters

The frequency inverter must be parameterised in order to assign a function to the setpoint (pulse signal). The appropriate parameter must be changed according to the digital input which is used (digital input 2 or 3):

| Parameter | Meaning | Remarks |
|-----------|-----------------|--|
| P421 | Digital input 2 | Permissible functions: Pulse functions * |
| P422 | Digital input 3 | |

* For details, refer to the frequency inverter manual.

| Value | Description * |
|-------|-----------------------------|
| 26 | Torque current limit |
| 28 | Frequency addition |
| 29 | Frequency subtraction |
| 33 | Current limit |
| 34 | Maximum frequency |
| 37 | Servo mode torque |
| 38 | Torque precontrol |
| 39 | Multiplication |
| 41 | Process controller setpoint |
| 42 | Process controller lead |

Additional documentation and software (www.nord.com)

| Document | Designation |
|-------------------------|---|
| BU 0500 | SK 500E - SK 535E frequency inverter manual |

| Software | Meaning |
|--------------------------|--|
| NORD.CON | Parameterisation and diagnostic software |