



Model Number

PCV-KFD2-SSI-D

Interface Module with SSI interface

Features

- Interface
- SSI interface
- DIN rail mountable

Technical data

General specifications

Installation DIN rail mounting

Functional safety related parameters

MTTF_d 60 a

Mission Time (T_M) 20 a

Diagnostic Coverage (DC) 0 %

Indicators/operating means

Display LC display

Electrical specifications

Operating voltage U_B 15 ... 30 V DC, PELV

Power consumption P₀ ≤ 0.6 W (without read heads)

Interface 1

Connection of control system

Interface type SSI

Protocol programmable

Clock frequency 100 ... 1000 kHz

Pause time t_p ≥ 20 μs

double request possible, if t_p ≤ 10 μs

Data output format binary code / Gray code , programmable

Interface 2

Connection of Reading head

Interface type RS 485

Protocol 8E1

Transfer rate 38.4 ... 230.4 kBit/s

Query cycle time 10 ms (15 ms at 38,4 and 57,6 kBit/s)

Interface 3

Interface type USB (serial comport)

Protocol 8E1

Transfer rate 230.4 kBit/s

Standard conformity

Emitted interference EN 61000-6-4:2007

Noise immunity EN 61000-6-2:2005

Ambient conditions

Operating temperature -10 ... 55 °C (14 ... 131 °F)

Mechanical specifications

Connection type removable terminals

Protection degree IP20

Material PC

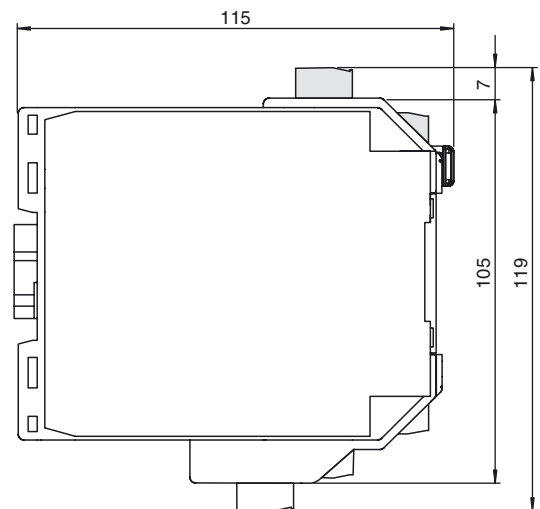
Mass approx. 110 g

Approvals and certificates

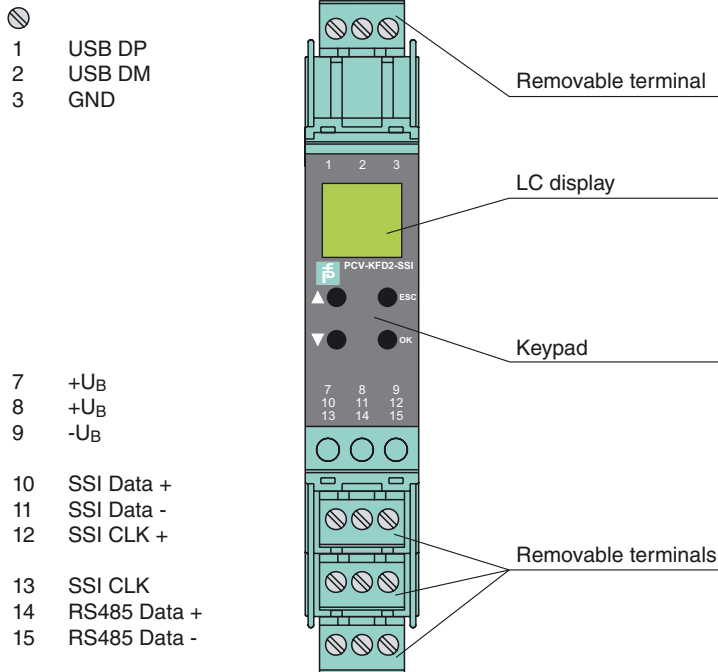
UL approval cULus Listed, General Purpose, Class 2 Power Source

CCC approval Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

Dimensions



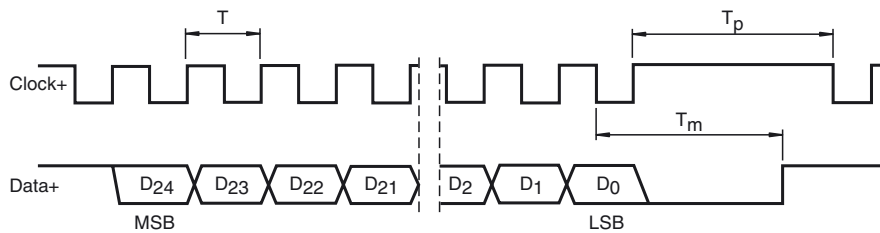
Electrical Connection



Function description

SSI interface

SSI pulse diagram



- T: Duration of the clock pulse
- Tp: Pause time of the clock pulse
- Tm: Monoflop time
- D24 ... D0: Data bits
- MSB: Most important data bit (Most Significant Bit)
- LSB: Least important data bit (Least Significant Bit)

You can define the structure and content of the response telegram using the configuration software PCV_config. This may include position data in an X and Y-direction as well as speed and diagnostic data. Make sure that the required settings have been configured, transmitted to the read head and stored there. The factory default structure of the response telegram is as follows:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Data	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	XP	Out	Wrn	Err
	MSB																					LSB		Status bits	

Meaning of status bits

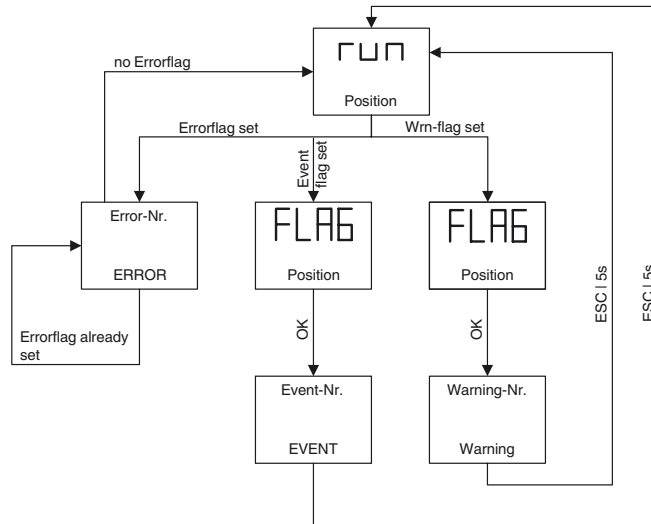
Out	Wrn	Err	Meaning
x	1	x	Warnings from read head
x	x	1	Error, error code in XP0 ... XP21
1	x	x	No position codes in the read window (XP0 ... XP21=0)

Error codes

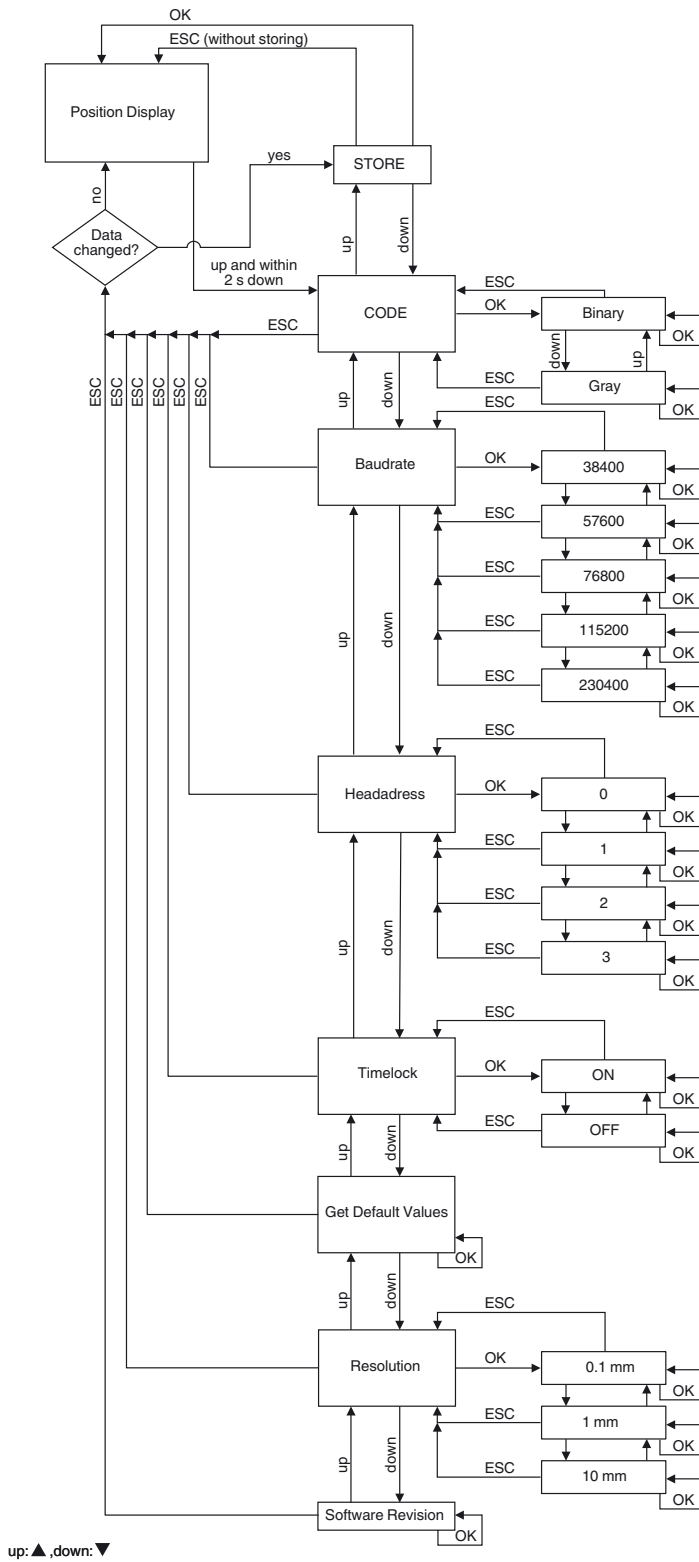
Error code	Meaning
1	Read head aligned incorrectly (rotated 180°)
2	Position error: position codes in the read window are not unique
8	XOR error
9	Parity error
13	No read head available
>1000	Internal fault

You will find information on other error codes in the description of the respective read head.

Release date: 2011-07-04 13:44 Date of issue: 2011-07-04 229389_eng.xml

Menu**Online menu****Configuration menu**

To access the configuration menu, briefly press the ▲ button and press the ▼ button within 2 seconds.



Note:
The current setting for a parameter is shown with an "A" on the display.

Note:
When the time lock is activated using the menu, the time period corresponds to the last value set via the interface.
If the time lock was deactivated via the interface (value = 0), the time period is set to the default value when the time lock is activated using the menu.

Note

Modified parameters are transferred to the volatile memory of the interface with "OK". The flashing indicator changes to a permanently lit indicator. The parameters are only transferred to the permanent non-volatile memory of the interface when "Store" has been executed.

Default values:

- Resolution: 1 mm
- Data output: Binary
- Baud rate: 115,200 bit/s
- Terminator: On
- Address: 0
- Time lock: 10 min
- Error acceptance threshold^{*)}
- SSI output: 3

^{*)} After this number of errors has occurred in sequence, the error message is output via the interface. The error counter is reset in the event of a fault-free RS 485 read cycle.