



Signal converter K23-SSI/R2/IU-C

- Suitable for the connection of sensors and absolute encoders with SSI interface
- Analog output 0/4 mA ... 20 mA
- RS 232/RS 485-Interface for serial readout of sensor information
- SSI: Master or slave operation
- Specified option for arbitrary linearization characteristics
- Additional functions such as z. B. bit masking, concentricity function
- Supply 18 V DC ... 30 V DC

Signal converter SSI/Analog

Function

The K23-SSI/R2/IU-C is a small and favourably priced, but extremely powerful converter for industrial applications, which will convert sensor and encoder information, which is available in the SSI format into an analog signal or into a serial RS 232/RS 485 format. The device is supplied in a compact housing for standard rail mounting and has 12 screw terminal connections and a 25-pin and also a 9-pin Sub-D socket.

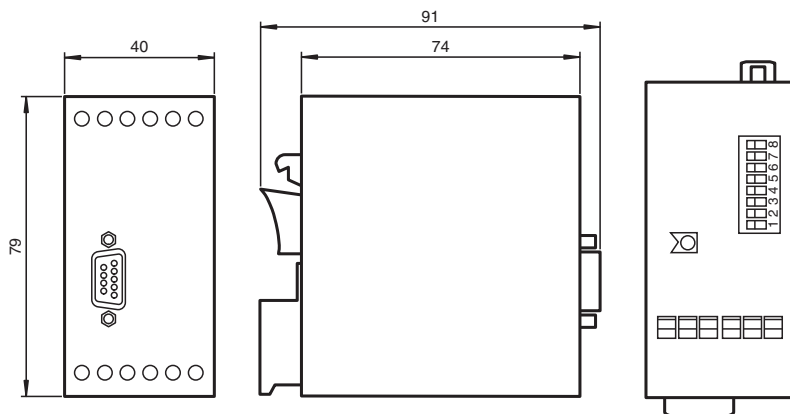
Applicable sensors and encoders:

Singleturn or multiturn absolute encoders and all comparable sensors with SSI interface (6 ... 25 bit Binary or Gray-Code), either in the Master mode (the device generates the clock signal itself), or in the Slave mode (the device switches to an available clock signal).

Note on resolution:

The device provides only for setting options for the standard resolutions 13 bit, 21 bit and 25 bit. For sensors with other resolutions the respective next highest value must be set (e.g. 21 bit for use with a 16-bit sensor). Depending on the make and version of the sensor in question, it may be necessary in an individual case to mask out the surplus bits using the bit blanking function. However, in the routine case the device operates without fault and without further measures when the next highest resolution value is assigned.

Dimensions



Technical Data

Electrical specifications

Rated operating voltage	U_e	18 ... 30 V DC
Rated operating current	I_e	≤ 170 mA at 18 V DC (5.5 V not connected) ≤ 120 mA at 30 V DC
Supply		Encoder: 5.5 V ±5 %, max. load 150 mA

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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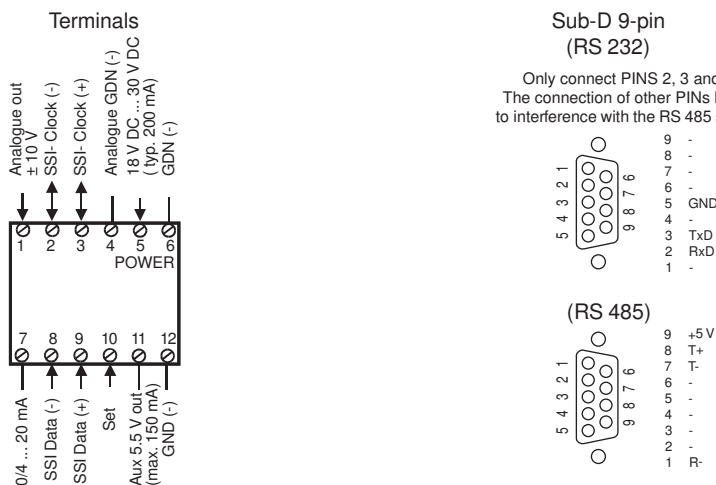
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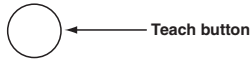
Technical Data

Input 1	
Input type	SSI
Input format	Gray code, binary code
Resolution	13, 21, or 25 bit
Input frequency	100 Hz ... 1 MHz
Input 2	
Input type	Set
Signal voltage	
High	≥ 10 V
Low	≤ 3 V
Internal resistor	5 kΩ
Output	
Number/Type	analog
Output rated operating current	0/4 ... 20 mA (< 270 Ω) at ±10 V DC (> 5 kΩ)
Ambient conditions	
Ambient temperature	0 ... 45 °C (32 ... 113 °F)
Mechanical specifications	
Connection	screw terminals , max. core cross-section 0.34 ... 2.5 mm ²
Mass	approx. 190 g

Connection



Assembly

**Set Default:**

OFF: Unit loads default settings with every power-up cycle
 ON: No loading of default settings upon power-up

Analogue Update Mode

OFF: Update of analogue output after every SSI telegram
 ON: Update of analogue output in a fixed preset time pattern

SSI-Test

OFF: Normal LED operation, teach function active
 ON: Verifies correct status of SSI clock and data lines

SSI Code

OFF: Gray Code
 ON: Binary Code

SSI Resolution

3 OFF, 4 OFF: not valid
 3 ON, 4 OFF: 25 Bit
 3 OFF, 4 ON: 21 Bit
 3 ON, 4 ON: 13 Bit

SSI-Mode

OFF: Slave Mode
 ON: Master Mode

Serial Port

OFF: RS 232-Format
 ON: RS 485-Format