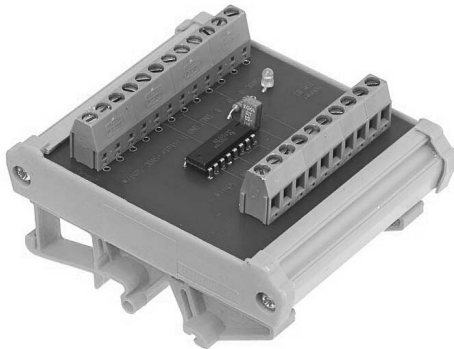


## Rail module TSM 03 adapter TTL to RS 422/485 signals



This interface module is used to convert 5V TTL incremental encoder signals to RS 422/485 - output - signals.

After the conversion, the signals can then, for example, be transmitted for further processing to a subsequent control with RS 422/485 - counting input.

Since the module also serves as a terminal strip for the rotary encoder and the assembly can be carried out on support rails TS 32 or TS 35, an efficient wiring is ensured.

Incremental encoder with max. 6 outputs can be connected to the module.

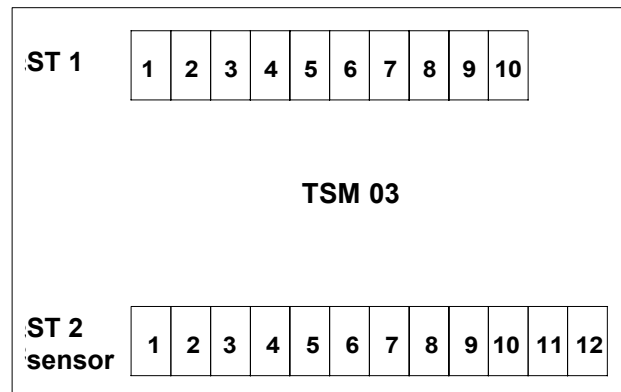
The presence of the supply voltage is indicated via an LED.

It is also possible to connect in parallel several modules on the output side and then address via the lead-out tristate inputs. When tristate function is not required, these inputs must be at +5V DC.

### Technical data

<b>dimensions:</b>	L=72mm x B=84mm x H=50mm
<b>protection type:</b>	IP 10
<b>combination locking foot for supporting rail systems:</b>	TS 32 and TS 35
<b>connection technology:</b>	screw terminal
<b>max. connection cross-section:</b>	
solid-core (rigid)	2.5 mm <sup>2</sup>
fine-wired (flexible)	1.5 mm <sup>2</sup>
fine-wired with core end sleeve	1.5 mm <sup>2</sup>
<b>supply voltage:</b>	5V DC ± 5%
<b>input load (5V)</b>	1 TTL - load <b>Attention:</b> unused signal inputs must be connected to 0V!
<b>interface module RS 422/485:</b>	SN 75172 or DS 26LS31C

Technical changes reserved



### Terminal assignment ST 1:

ST 1	Function
Pin	
1	input GND of 5V DC bridged with pin 1/ST 2 (encoder supply)
2	input + 5V DC bridged with pin 2/ST 2 (encoder supply)
3	output RS 485 encoder signals 5V/channel A
4	output RS 485 encoder signals 5V/channel AN
5	output RS 485 encoder signals 5V/channel B
6	output RS 485 encoder signals 5V/channel BN
7	output RS 485 encoder signals 5V/channel 0
8	output RS 485 encoder signals 5V/channel 0N
9	output shield bridged with ST 2 shield
10	output shield bridged with ST 2 shield

### Terminal assignment ST 2/sensor connection:

ST 2	Function
Pin	
1	output GND of 5V DC bridged with pin 1/ST 1 (encoder supply)
2	output GND of 5V DC bridged with pin 1/ST 1 (encoder supply)
3	input channel A
4	input channel B
5	input channel 0
6	output GND
7	output GND
8	input tristate („0“ = high impedance) (when function is not required, put this input on + 5V)
9	input tristate („0“ = high impedance) (when function is not required, put this input on + 5V)
10	output + 5V DC
11	output shield bridged with ST 1 shield
12	output shield bridged with ST 1 shield