

DMI Converter

1110494-01



- Converter and/or splitter between HTL or RS422 signals
- Galvanically isolated between inputs/outputs
- Universal box for mounting on DIN-rail
- Power supply voltage 9...30 Vdc

Electrical specification

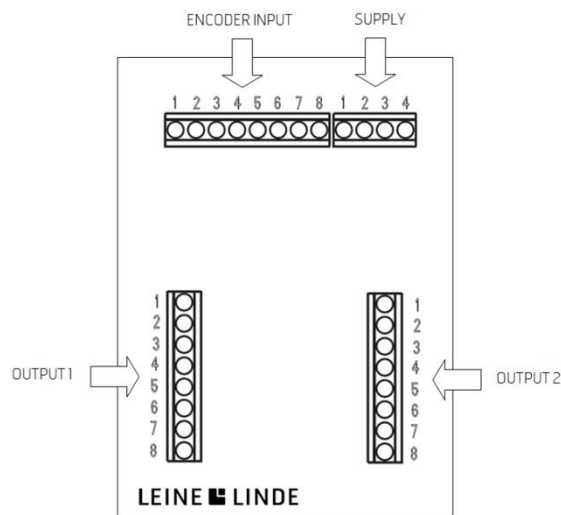


Input section		SUPPLY and ENCODER INPUT	
Supply voltage +E Volt		9...30 Vdc, polarity protected	
Current consumption without encoder		30 mA at 24 Vdc (Max. 60 mA)	
Encoder signals		Incremental HTL or RS422 levels	
Mode 1 (default)		6 channels (S00, S00 inv, S90, S90 inv, Sref, Sref inv)	
Mode 2 (Pin 3-4 bridged)		3 channels (S00, S90, Sref)	
Output sections		OUTPUT 1 and 2	
Output level		RS422	HTL
Supply voltage +E Volt		9...30 Vdc	9...30 Vdc
Load max		± 20 mA	± 40 mA
Max cable length		1 km (TIA-EIA-422-B)	200 m at 50 kHz
U _{high}		>3.0 V	> +E V - 2.0 V
U _{Low}		<0.4 V	< 1.15 V
Frequency range		0...300 KHz	0...300 kHz
Isolation voltage		1 kV	1 kV
Propagation delay, t _{on} , t _{off}		Max 1 us	Max 1 us

Mechanical specification

Housing	Plastic and Aluminium
Mounting	DIN rail 7.5mm, DIN rail 15 mm
Weight	160 g
Temperature	Operating: -25 °C...+70 °C, Storage: -40 °C...+85 °C
Dimensions	105x72x38 mm (Height, width, depth)
Wire area	0.20 - 1.5 mm ² (IEC) / 24 - 16 AWG (UL)

Connection option



Section	Function	Terminal
SUPPLY	+ E Volt, input	1
	0 Volt, input	2
	Jumper for 3 channel	3
	Jumper for 3 channel	4
ENCODER INPUT	+E Volt to encoder	1
	0 V to encoder	2
	S00	3
	S00 inverted (*)	4
	S90	5
	S90 inverted (*)	6
	Sref	7
	Sref inverted (*)	8
OUTPUT 1 and 2	+ E Volt (Supply voltage to output section)	1
	0 Volt (Supply voltage to output section)	2
	S00	3
	S00 inverted	4
	S90	5
	S90 inverted	6
	Sref	7
	Sref inverted	8

(*) 3 channel encoder: Connect terminals 3, 5, 7 in the ENCODER INPUT section and bridge terminal 3 and 4 in the SUPPLY section.

Installation instructions

Installation

Install the unit in a cabinet with DIN rail 7,5 mm or DIN rail 15 mm.

Description

The incremental interface converter converts the HTL or RS422 input signals from the encoder to two separate HTL or RS422 signal outputs that are galvanically separated from the input and each other.

Connections

SUPPLY:

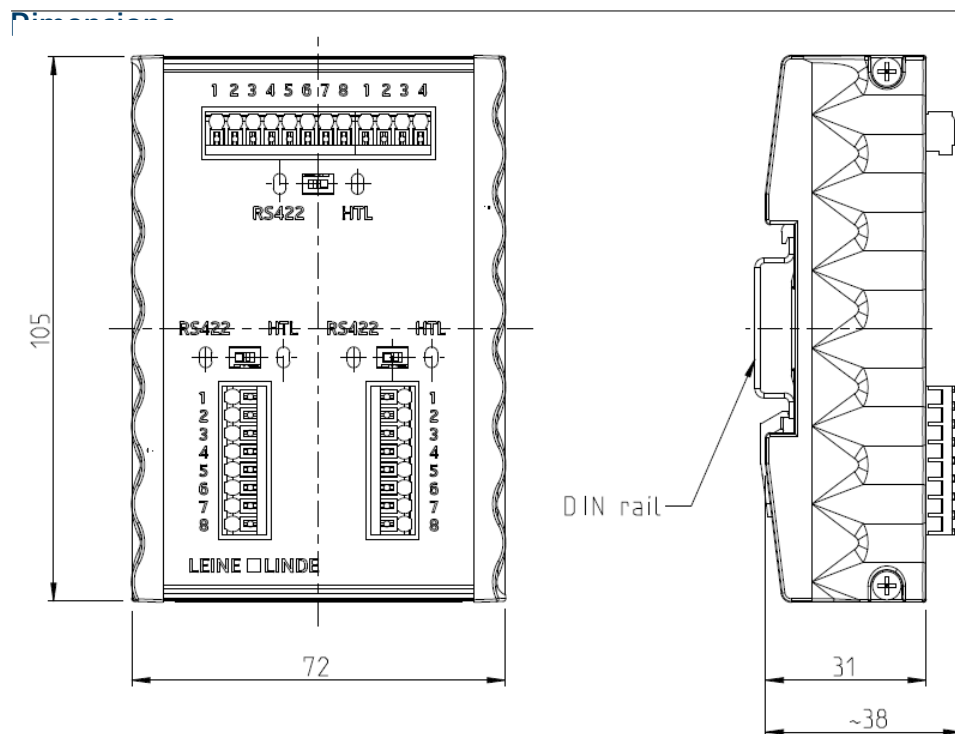
Connect the supply voltage of +9...30 Vdc to the supply terminal pin 1 and 2. If a 3 channel ("Single ended") encoder is used, bridge terminal 3 and 4.

ENCODER INPUT

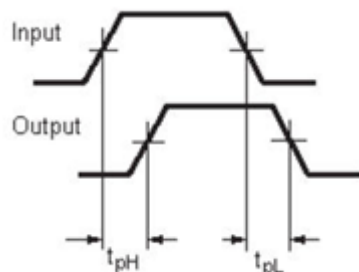
All Leine and Linde encoders with HTL or RS422 encoders with 9-30 Vdc power supply can be used together with the DMI converter. If an HTL encoder is to be connected, set the switch for the ENCODER INPUT to HTL or set the switch to RS422 if an RS422 encoder shall be connected. The current setting of the switch (HTL or RS422) is indicated with a green LED. Connect the encoder power supply connection and signal wires to the terminal ENCODER INPUT. If the SUPPLY terminals 3 and 4 are bridged, the DMI converter is set to 3 channel operation. In this case the ENCODER INPUT terminals 4,6 and 8 will be internally connected to GND (0 Volt). An encoder with TTL (5V) output can optionally be connected to the DMI Unit. The encoder must then be powered from a separate 5V supply and the encoder input switch must be set to RS422.

OUTPUT 1 and 2

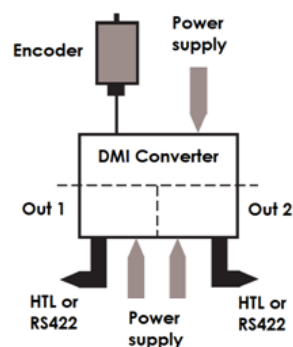
There are two separate output from the DMI converter. Output 1 and output 2. The two outputs are galvanically separated from each other and from the input. Connect a power supply of 9...30 Vdc to pin 1 and 2 and the other terminals provide 6 channels split/converted output signals from the connected encoder. The Outputs 1 and 2 can be individually set to HTL or RS422 outputs with the corresponding switch. The current output setting is indicated with a green LED.



Propagation delay



DMI Converter



Ordering information

Part number

1110494-01

Note: When the product is installed in a cabinet, the equipment complies with the protection requirement of Council Directive 2014/30/EU relating to electromagnetic compatibility.

17 October 2016. Specifications can be changed without prior notice.