SSi encoder to 0..4..20mA analog output converter

type : CNL35SSi

- ***Synchronous Serial interface (SSi) input***
  - *Master or slave mode*
  - *8 to 32bits SSi frame in binary or gray format*
  - *Encoder may be powered by converter*
- ***Display***
  - *4 digits for measure*
  - *Easy programming with explicit text message*
- ***option :***
  - *Up to 2 relays*
  - *Up to 2 isolated analog output*
- ***Plug-in connectors***
- ***Universal supply (Ac and Dc)***

The CNL35SSI converts a SSi information provided by a single-turn or multi-turn positional encoder into one or two analog outputs and with up to 2 alarms relays.

DESCRIPTION:

The SSi interface consist of 2 pairs of wires:
One for transmitting the clock signal from a master and the other for transmitting the data from the slave (encoder).
The number of clock pulse depend of the number of bit in the ssi frame.
A third pair of wires can provide the power supply for the encoder.

Inputs :
SSi master or slave operation with baud rates up to 1MHz,
for SSi single-turn and multi-turn encoders from 8 up to 32bits.
Programmable low and high display value.
Programmable length of ssi frame, bit blanking,...
Auxiliary output 24Vdc/100mA for supply the SSi encoders
Calculations and software functions:
Multiply/divide factor, adjustment of zero value,
Code sense, minus sign, offset (Tare function),
Special linearization on 26 points

Front face :
- Measure display: 4 digits, alphanumerical matrix LED display,
- 2 push buttons for the complete device configuration,
- 2 red leds for relays state.

Analogical output (/S option)
- 1 or 2 isolated analog outputs:
- programmable in current (0... 4... 20 mA) or voltage (0… 1… 5… 10 V) mode
- programmable response time and security value.

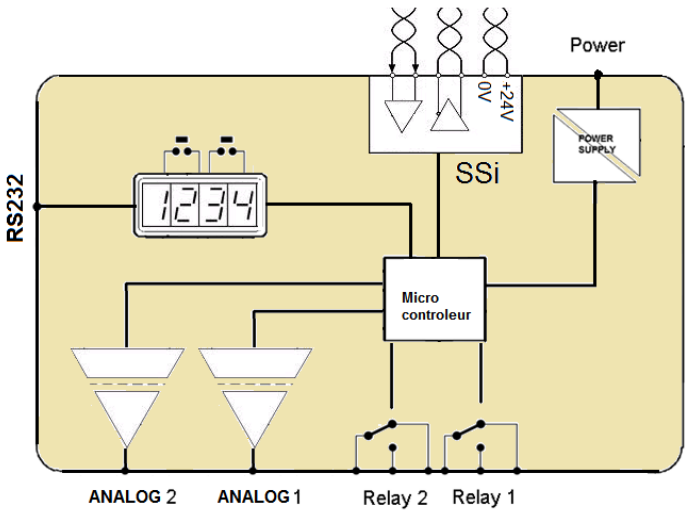
Relays (/R option)
- Up to 2 relays with dry changeover contacts, use in alarm or SSi link breaking.
- Threshold, sense, hysteresis and delay freely programmable for each relays

General characteristics:
- rail DIN mount box 23mm wide,
- protection class: IP20 , conformal coating,
- Unplug 1 mm^2 spring connector,
- front face hinged to access the buttons and serial link connector.

Security / Reliability :
- configuration settings saved in FLASH, data retention > 40 years,
- a "Watchdog" controls the good running of programme,
- galvanic isolation input / outputs / supply.

Configuration:
The device may be configured with the front face buttons or by a RS232 serial link (terminal mode). A USB—jack 3.5 cable is available separately.
Firmware update possible by USB link.

Synoptic:



Version and order code:

Request a quote

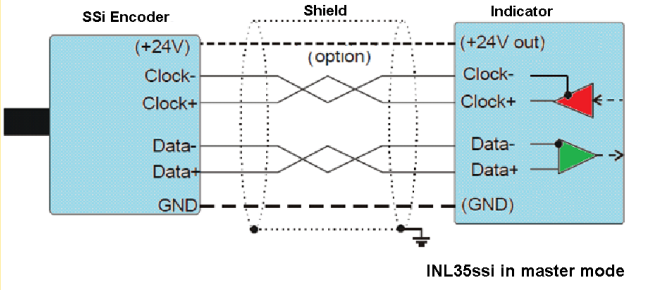
CNL35ssi	Base version with one analog output
CNL35ssi/R1	+ 1 relay
CNL35ssi/R2	+ 2 relays
CNL35ssi/S2	2 analog outputs

Note: Option may be combined.

SSi INPUT

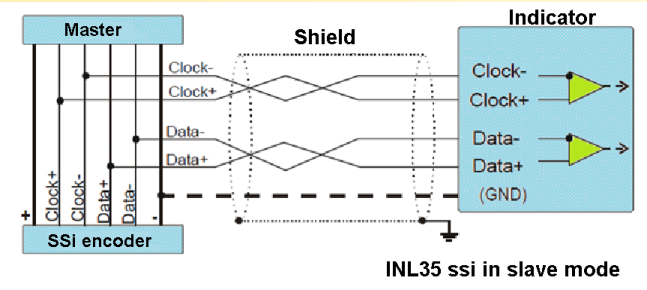
SSi input type	Differential RS 422 / RS485
SSi clock	Programmable
Master mode :	Output differential RS 422 / RS485
Clock baud rates	100 KHz ... 1 MHz
Slave mode :	Differential Input RS 422 / RS485
Clock baud rates	100KHz … 1MHz
Common mode protection :	+/-70V
ESD protection :	+/-16Kv
Refresh rate :	100 measures / second.

SSi in master mode (the converter drive the clock signal)



INL35ssi in master mode

SSi in slave mode (the converter receive the clock signal)



INL35 ssi in slave mode

AUXILIAIRY

Encoder supply 21 V regulated +/- 5% (100mA)

POWER SUPPLY

2 versions available : not polarized, standard and low voltage:
standard (ac/dc) : 21Vdc….300Vdc & 55Vac.....265Vac
Low voltage : 12Vdc....to.....30Vdc.
consumption < 4 VA

ANALOGICAL OUTPUT (14bits resolution)

Type	**Range**	**Accuracy**
Current	0 ... 4 ... 20 mA	+/- 20 µA
Load:	0.....800 Ohms	
Voltage	0 ... 10 V	+/- 10 mV
Output impedance:	500 Ohms (internal 0.1% shunt)	
Response time (programmable) from 10 ms to 60 sec		

RELAYS

Changeover contact, breaking capacity:
dc: 220VDC, 0.24A, 60W ; 125VDC, 0.24A, 30W ; 30VDC, 2A, 60W
ac: 250VAC, 0.25A, 62.5VA ; 125VAC, 0.5A, 62.5VA
Surge voltage: 3Kv coil/ contact ; 2.5Kv contact/contact
Mechanical endurance : 10^8 operations
Shock resistant: 300G operating

ENVIRONMENT

Operating temperature	-10 to +60 °C
Storage temperature	-20 to +85 °C
Drift	< 50 PPM / °C (output)
Relative humidity	85 % (no condensed)
Weight	~ 200 g
Protection	IP20
Dielectric strength	2500 Vrms (power supply)
MTBF (MIL HDBK 217F)	> 3 500 000 Hrs @ 25°C
Useful life	> 200 000 Hrs @ 30°C

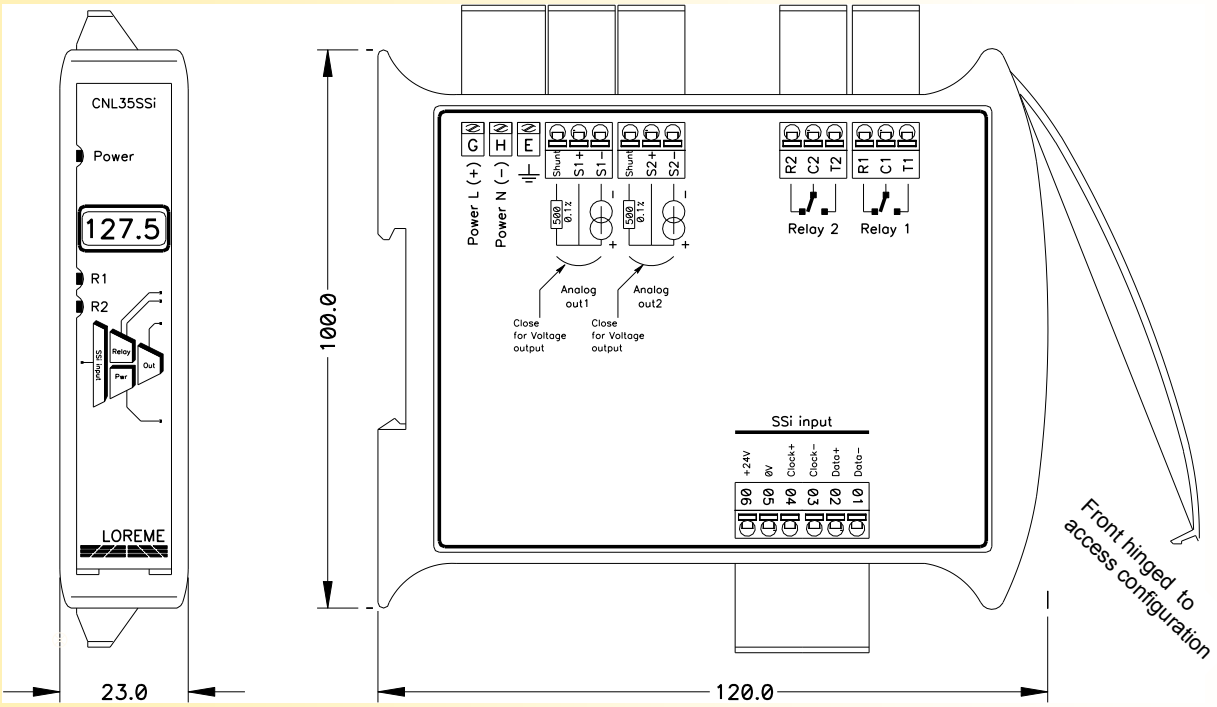
Electromagnetic compatibility

Generic standards: **NFEN50081-2 /NFEN50082-2**

CE

EN55011	meet	groupe 1 / classe A			
EN61000-4-2	no influence	B	**EN61000-4-3**	< +/- 5 %	A
EN61000-4-4	< +/- 5 %	B	**EN61000-4-6**	< +/- 5 %	A
EN61000-4-5	< +/- 5 %	B			
EN61000-4-8	no influence	A			
EN61000-4-11	< +/- 5 %	B	**DBT**	**2006/95/CE**	

WIRING AND OUTLINE DIMENSIONS:



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