



• **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.

Analogue 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 mm² spring connector,
- front face hinged to access the buttons and serial link connector.

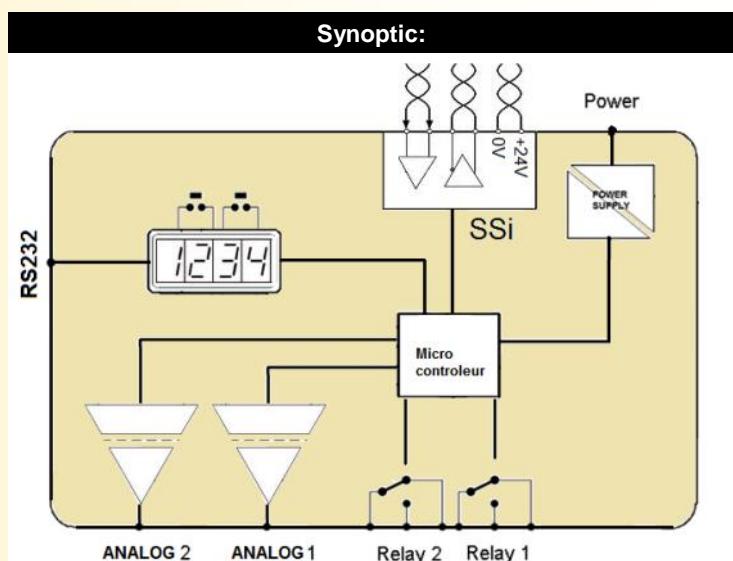


Security / Reliability :

- 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.



Version and order code:

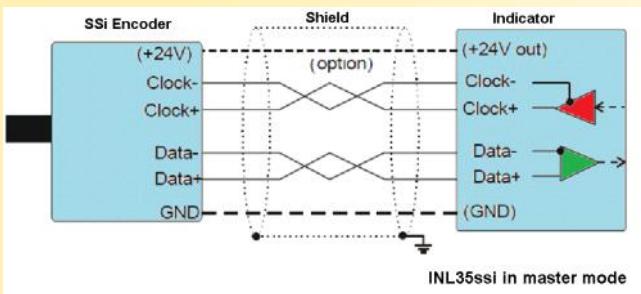
CNL35ssi	Base version with one analog output
CNL35ssi/R1	+ 1 relay
CNL35ssi/R2	+ 2 relays
CNL35ssi/S2	2 analog outputs

Note: Option may be combined.

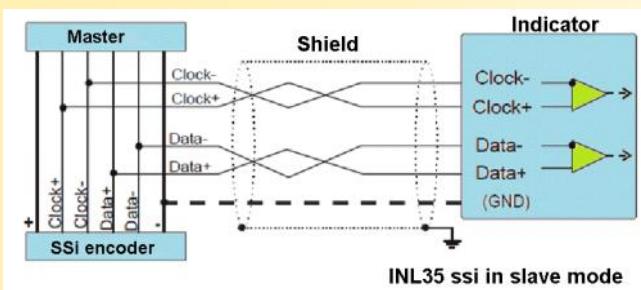
SSI INPUT

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)



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



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
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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 : 10⁸ 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



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

WIRING AND OUTLINE DIMENSIONS:

