



• Process and temperature inputs

Volt, mV, mA, sensor power supply, potentiometer, frequency, strain gauge, thermocouple, PT100

Programmable via the front face and USB-RS232 link

• Display :

10 000 pts for measure,
unit display on 4 alphanumeric digits
96 x 48 mm standard format

• option : Isolated analog output,

up to 4 relay outputs,
RS485 link Modbus / Profibus,
Ethernet Modbus TCP link

• Pluggable terminal blocks

• Universal power supply 20 ... 265Vac-dc

• SIL 2 option according to IEC 61508



The INL35 is a universal panel meter for analog process and temperature inputs. It is configurable in a clear language (without manual) and allowing to display the physical unit.

Description:

Process inputs:

- Current 0..4..20mA with or without sensor power supply.
- Voltage 0..10V..200V
- Potentiometer
- Strain gauge
- Resistance
- Frequency and duty cycle
- Namur sensor

Temperature inputs:

- PT100 2, 3 or 4 wires
- Thermocouple type : B, E, J, K, R, S, T, N, W3, W5,...
(all other thermocouple on request)

Calculation functions:

- square root extraction
- Special linearization on 26 points

Front face :

- Measure display : 4 digits, 7 segments LED of 14.2 mm
- Unit display: 4 digits LED alphanumeric dot matrix
- 3 push buttons: Fully configuration of the device, alarm threshold setting, tare,
- 4 red LEDs for visualization of the relays state, 1 led for tare.

Analog output (option: INL35/S)

- 1 isolated analog output configurable in current 0 ... 4 ... 20 mA or voltage 0...1...5...10 V
- scale, response time, security value adjustable.

Relays (option: /R)

- Maximum 4 relay output (SPDT contact)
usable in alarm, TOR regulation, sensor or input loop breaking detection.
- Threshold, direction, hysteresis and delay individually adjustable for each relays (ON delay and OFF delay)

Configuration:

INL35 can be configured via the front face or the serial RS 232 link (jack 3.5mm). USB to jack cable supplied separately.

Attention: No isolation between serial link and inputs !

Operational safety data:

component type B , HFT = 0
 $\lambda_f = 239$ fit , DC = 87.8 %, PFH : 16 à 21 fit
SFF = 93.3 % with 1 analog output
SFF = 90.8 % with 4 thresholds



Features:

- DIN panel case: 96x48mm
- pluggable screw terminals block (1.5mm² section)
- Universal switching power supply AC / DC
- Conformal coating
- Protection rating IP20, IP65 with cover in option



Version and order code:

Request a quote

INL35	Basic version, 4 digits display
INL35/R1	+ 1 relay
INL35/R2	+ 2 relays
INL35/R3	+ 3 relays
INL35/R4	+ 4 relays
INL35/S	+ 1 analog output
INL35/CM	+ RS485 link, MODBUS protocol
INL35/CP	+ RS485 link, PROFIBUS-DP protocol
INL35/CMTCP	+ ETHERNET, MODBUS TCP protocol
INL35/SNMP	+ ETHERNET, SNMP
	/SIL2 SIL2 version according to IEC61508

option /R4 , /S , /CM , /CP , /CMTCP not combinable

INPUT (resolution :14 bits process ,16 bits temperature ; reference 5 ppm)			POWER SUPPLY		
Type	Range	Accuracy	Type	Range	Accuracy
Voltage (low level)	- 250 to 2000mVdc	+/- 40 uV	Universal: (2 versions: standard and low voltage not polarized)		
Input impedance	1 MOhms	to +/- 1 mV	Standard: 21Vdc, 55Vac to 265Vac/dc		
(on two input ranges : 250mV and 2000 mV)			low voltage: 12Vdc to 30Vdc.		
Differential voltage	- 50 to +50mVdc	+/- 10 uV	consumption < 3 VA		
Input impedance	1 MOhms				
Voltage (High level)	- 25 to 200Vdc	+/- 0.02 V	Analog output (INL35/S) 12 bits resolution		
Input impedance	500 kOhms	to +/- 0.8 V	Type	Range	Accuracy
(on two input ranges : 25 V and 200 V)			Current	0 4 20 mA	+/- 20 µA
Current	- 4mA to 40 mA	+/- 0.01 mA	Maximal load:	800 Ohms	
Input impedance	50 Ohms				
Resistance 2, 4 wires	0 / 380 Ohms	+/- 0.2 ohms	Voltage	0 ... 10 V	+/- 10 mV
Measure current	< 700 uA		Impedance output:	500 Ohms (internal shunt 0.1%)	
Pt100 2, 3 wires	-200 800 °C	+/- 0.2 °C	Response time (programmable):		
Pt100 4 wires	-200 800 °C	+/- 0.1 °C	process input: 35ms to 60s		
Thermocouples:			temperature input: 100ms to 60s		
Tc B	+200 1800 °C	+/- 2 °C			
Tc E	-250 1000 °C	+/- 0.3 °C	RELAY (INL35/R)		
Tc J	-200 600 °C	+/- 0.4 °C	Switching power	250VAC , 1A (250 VA)	
Tc K	-200 1350 °C	+/- 0.5 °C			
Tc R	0 1750 °C	+/- 1.5 °C	COMMUNICATION (INL35/C--)		
Tc S	0 1600 °C	+/- 1.5 °C	RS485 link:		
Tc T	-250 400 °C	+/- 0.4 °C	Modbus (INL35/CM)	from 1,2 to 38,4 kbds.	
Tc N	-250 1350 °C	+/- 0.5 °C	Profibus-DP (INL35/CP)	from 9600 to 1.5M bds.	
TC W3	0 2300 °C	+/- 2 °C	Wiring	2 wires screw terminal.	
TC W5	0 2300 °C	+/- 2 °C	RJ45 Ethernet link (INL35/CMTCP)	10/100 M	
T° compensation	-10 / 60 °C	+/- 0.2 °C			
thermocouple breakdown detection current = 0.5 uA.					
Frequency	0.25Hz...100 KHz	+/- 0.2 %	ENVIRONMENT		
Duty cycle	50 Hz...5KHz	+/- 0.2 %	Operating temperature	-25 to +60 °C	
Input impedance	100 kOhms		Storage temperature	-25 to +85 °C	
Measure amplitude	4 to 50 V~ peak to peak		Temperature drift	< 20 PPM / °C	
with automatic DC component suppression.			Humidity	85 % not condensed	
All type of sensor: NPN, PNP, NAMUR			Weight	~ 180 g	
			Protection rating	IP20	
			Dielectric strength	1500 Vrms continuous	
			MTBF (MIL HDBK 217F)	> 4 000 000 Hrs @ 25°C	
			Life time	> 200 000 Hrs @ 30°C	
Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE					
Immunity standard for industrial environments EN 61000-6-2			Emission standard for industrial environments EN 61000-6-4		
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011			
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	group 1			
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	class A			
EN 61000-4-5 CWG	EN 61000-4-12 ring wave				
EN 61000-4-6 RF	EN 61000-4-29 DC dips				

WIRING AND OUTLINE DIMENSIONS: