

Field mount loop powered temperature transmitter with LCD display

- **Loop powered** (isolated 4-20mA)
- **LCD display:** 10000 points
- **Outside mounting**
IP67 protection
- **Explosion-proof protection**
IECEX and ATEX
- **INP101V:** rotating display for horizontal or vertical mounting
- **INP101 i:** 316 Stainless Steel version
- **HART protocol**
(available option on all models)
- **FDT DTM certified HART drivers**
- **SIL2 compliance**
according to IEC 61508



INP101V on thermowell



INP101 on thermowell



INP101i stainless steel version



INP101V vertical mounting



INP101V horizontal mounting



INP101



The INP 101 is field mounted transmitter-indicator powered by the 4-20mA loop current. It includes in a single case, protected against harsh conditions (IP67), a programmable converter (loop powered CNL40IG) and a 4-digit display.

DESCRIPTION :

Temperature and process measurement:

- Thermocouples / platinum RTD (pt100) sensors
- Voltage (mV), current (mA) on external shunt.

Signal processing:

- square root extraction (on process measures)
- programmable sensor breaking safety value,
- programmable response time from 0.2 to 60 sec, (measure filtering function)
- reverse or standard output,
- measure offset adjustment,
- neutralization of thermal ambient variation effects

Display :

- LCD liquid crystal display (STN), wide temperature (4 digits),
- 10000 points resolution (physical unit display).

Configuration:

- Configuration by RS232 serial link (all models) (USB cable supplied separately)
- Communication and configuration online with standard HART programming handheld terminal

Performance / Environment

- Long-term stability 0.1 %/year.
- Resistant, protected against collisions and vibrations (silicon coating resin)

Feature

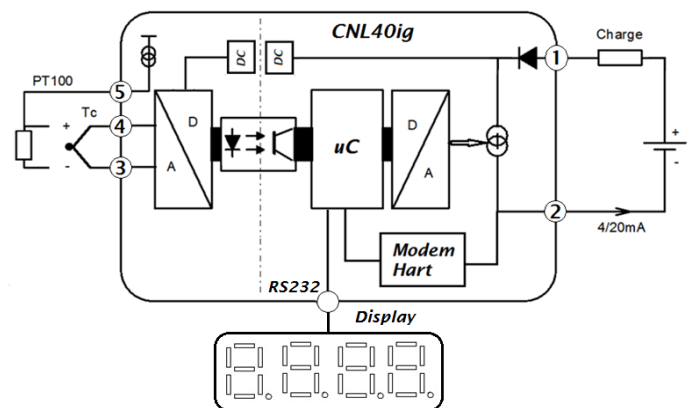
- Thermowell assemblies or pipe support mounting (default)
- Protection against reverse polarity
- Input/output insulation (elimination of measure errors due to ground loop)
- IP67 protection

Functional safety data:

- SIL 2 : $\lambda f = 457 \text{ fit}$, SFF = 95.4 % , DC = 91.8 %
type B component, HFT = 0



Synoptic



Version and order code :

[Request a quote](#)

INP 101 : Aluminium housing, epoxy coating, IP67, display side view

INP101V : Aluminium housing, epoxy coating, IP67, (the mounting mode must be define : Horizontal or Vertical)

- option /H : HART communication
- /ADF : ATEX or IECEx explosion-proof protection
- /i : 316 Stainless Steel case (IP 68)
- /SIL2 : SIL2 according to IEC 61508 (All options are cumulative)

For a direct mounting on pyrometer probe (consult us)

INPUT (24bits resolution)		
TYPE	RANGE	ACCURACY
Tc B	200 / 1800 °C	+/- 2 °C
Tc E	-250 / 1000 °C	+/- 0.4 °C
Tc J	-200 / 600 °C	+/- 0.4 °C
Tc K	-200 / 1350 °C	+/- 0.4 °C
Tc R	0 / 1750 °C	+/- 1 °C
Tc S	0 / 1600 °C	+/- 1.5 °C
Tc T	-250 / 400 °C	+/- 0.5 °C
T° Compensation	-20 to 60 °C	+/- 0.3 °C
PT100 2, 3 wires:		+/- 0.3 °C
RTD measure range		-200 / 800 °C
Voltage	0 / 120 mV	+/- 0,02 mV
Current	0 / 30 mA	+/- 0,025 mA
(external shunt of 2.5 ohms)		
Response time		~ 200msec
Sampling rate		6 per sec.
Input impedance		> 1 MOhms
Sensor current (Pt100)		300 µA
resistance line influence		0.3°C / 10ohms

POWER SUPPLY / OUTPUT (14 bit resolution)	
supply voltage:	13 to 40Vdc (2 wires technology)
Current	4 / 20 mA +/- 0.01 mA
Load resistance	550 Ohms for 24V supply
Intrinsic power consumption	<3.6 mA
Security current programmable	3.6 ... 22mA
(burnout condition)	
Effect of supply voltage change	0.002 % / V
Effect of load stability	0.004 % / 100 Ohms
ENVIRONMENT	
Operating temperature	-30 to 65 °C
Storage temperature	-30 to +85 °C
Thermal drift (% of full scale)	< 0.01 % / °C
Weight	1,4 Kg (without fastening)
Dielectric strength (input / output)	1000 Vrms continuous
MTBF (IEC 62380)	> 2 180 000 Hrs @ 30°C
Life time	> 250 000 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 61000-4-3 RF	EN 61000-4-9 pulse MF
EN 61000-4-4 EFT	EN 61000-4-11 AC dips
EN 61000-4-5 CWG	EN 61000-4-12 ring wave
EN 61000-4-6 RF	EN 61000-4-29 DC dips
EN 55011	group 1 class A
CE	

WIRING AND OUTLINE DIMENSIONS : (example of implementation)

