

IDL 101

Intelligent Datalogger



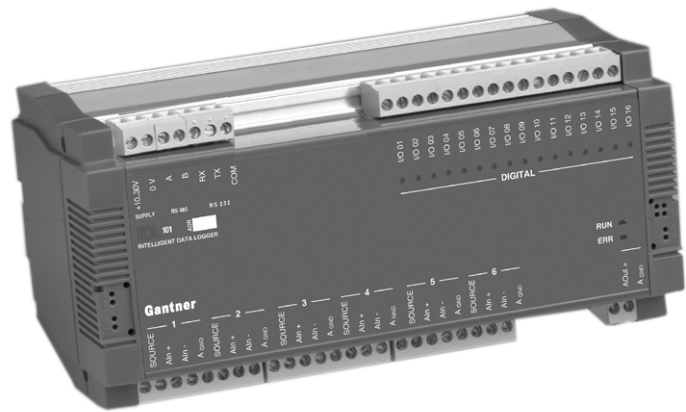
INGENIEROS ASOCIADOS DE CONTROL S.L.

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The IDL 101 accepts 6 analog inputs direct and a further 60 from remote Sensor Modules via the RS 485 interface. Analog inputs can be independently configured to measure current, voltage, resistance / Pt100 (2, 3 and 4-wire) and thermocouple inputs. The 16 digital channels can be individually configured as inputs (status, counter, frequency) and/or outputs (status, alarm) depending on the application. All values can be stored with a time and date stamp on internal RAM. Logged data can be uploaded to a PC via an RS 232 serial interface, modem, GSM or TCP/IP. Inputs can be linearised, converted to engineering units, transmitted over a network and used to process advanced mathematical formulae.

The remote autocall feature enables the IDL 101 to initiate communication back to the operator according to pre-defined conditions, eg a failed input signal, or full memory. This ensures that the potential for data loss is minimised. Stored data can be uploaded to a PC via an RS 232 or RS 485 interface using industry standard protocols - Profibus Layer 2, MODBUS-RTU and ASCII-Gantner.

- 6 Analog Inputs
- 16 Digital Inputs/Outputs
- 1 Analog Voltage Output
- 512 kB Internal RAM
- RS 232 and RS 485



Ordering Information

Product	Article No.
IDL 101	457723
Accessories:	
Device Description for IDL 101	
IDL 101 DOC	
Data Cable:	
ICL 101	428418
Modem Cable:	
ICL 103	567523
Configuration Software	
ICP 100 Adv.	633214
Visualisation Software	
LOG 100	630312
Cold Junction Compensation for Connection of Thermocouples	
ICJ 104	536317

Main Features

- 6 general-purpose analog input channel for voltage, current, resistance (2- and 4-wire technic) and thermocouples
- 16 digital input/output channels
- 1 analog voltage output
- 10 / 12 bit A/D conversion
- Total signal conditioning via individual linearization, scaling and formatting
- Autocall function
- Stand alone external trip relay
- Mathematical functions and operations of the channels
- Data storing in internal RAM up to 512 kbyte buffered
- Fieldbus RS 485 for simultaneous connection of up to 127 modules at one line or to extend the number of I/Os with ISM-Modules
- Additional RS 232 serial interface
- PC software for easy configuration of the modules

IDL 101 - Specifications

ANALOG INPUTS (6 PER MODULE)

Accuracy: 0.02 %
Resolution: 0.1 %
A/D-conversion: 10 / 12 bit
Span drift: 25 ppm/°C
Sampling rate config.: 100 ms to 1 h

Voltage Input:

Ranges: 0 .. 10 V, 0 .. 1 V, ± 50 mV
Input impedance: 10 M Ω

Current Input:

ext. 50 Ω shunt
Range: 0 (4= .. 20 mA)
Input impedance: 100 Ω

Resistance Input:

Types of measurement: 2- or 4-wire
Ranges: 0.. 2 k Ω
Pt100 (-40 °C .. +60 °C)
Pt100 (-60 °C .. +250 °C)
Measurement current: 0.5 mA DC

ANALOG OUTPUT

Output voltage: 0 .. 10 V
Accuracy: 0.5 %
Resolution: 40 mV
Swing in time: 10 ms

DIGITAL INPUTS/OUTPUTS (16 PER MODULE)

Digital Input:

Function: Status, Counter, Frequency
Input voltage: max. +30 V
Input current: max. 1.5 mA
Switching threshold: > 3.5 V (low)
Switching threshold: < 1.0 V (high)
Input frequency: max. 2 kHz (I/O 01 ... I/O 08)
max. 100 Hz (I/O 09 ... I/O 16)

Digital Output:

Function: Process or host controlled
Type of output: Open-collector
Output current: max. 100 mA
Output voltage: max. 30 V
Output frequency: max. 100 Hz

COMMUNICATION INTERFACE

Standard: RS 485, RS 232
Data format: adjustable 8E1 / 8N1
Protocols: ASCII-Gantner, MODBUS-RTU
Baudrate: 2,400 - 115,200 bit/s
Connectable Devices: Without repeater up to 32 devices,
with repeater up to 127 devices at
one single line

POWER SUPPLY

Voltage range: 10 V to 30 VDC

ELECTROMAGNETIC COMPATIBILITY (EMC)

Electrostatic discharge (ESD): Level 2 acc. IEC 801-2:
4 kV
Radiated electromagnetic fields: Level 3 acc. IEC 801-3:
10 V/m
Electrical fast transients: Level 3 acc. IEC 801-3:
2 kV/1 kV
Radiated RFI/EMI: Level B acc. VDE 0871-1/
CISPR 11

MECHANICAL

Case: Aluminium and ABS
Dimensions: W 189 x H 90 x D 83 mm
W 7.4 x H 3.5 x D 3.3 inch
Mounting: DIN EN-Rail Mounting
Protective system: IP 20
Weight: 574 g

CONNECTION

Plug-in screw terminals up to max. 1.5 mm²
Rapid bus connector: 4-pin plug in ABS-housing

Operating temperature: - 30 °C to + 60 °C
Storing temperature: - 30 °C to + 85 °C
Humidity: 0 % to 95 % at + 50 °C
(non condensing)

GE-IDL101-P/2100e



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