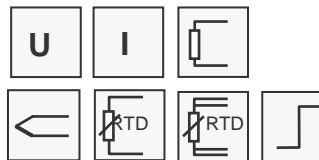


IDL 100



The IDL 101 can directly accept 6 analog inputs and up to 60 more from remote Sensor Modules via RS 485. Inputs can be configured to measure current, voltage, resistance / Pt100 (2 and 4 wire) and thermocouple inputs. The 16 digital channels can be configured as input (status, counter, frequency) and/or outputs (status, alarm) depending on the application. All values can be stored on internal RAM or on the optional PCMCIA memory card. Logged data can be uploaded to a PC via an RS 232 interface, modem GSM, or TCP/IP. Inputs can be linearized, formatted, transmitted over a network, and used in advanced mathematical analysis.

The autocall feature enables the IDL 101 to communicate back to the operator according to predefined conditions. This ensures that the potential for data loss is minimized. Stored data can be uploaded to a PC via an RS 232 or RS 485 interface using Profibus layer 2, Modbus-RTU, or ASCII.

6 general purpose analog inputs

Voltage, current, resistance, Pt100, Pt1000, thermocouples

16 general-purpose digital I/O

Status, counter, frequency measurement

1 analog voltage output

Output any measured or calculated signal

512 kB internal RAM

Data logging

RS 485 fieldbus interface

Profibus layer 2, Modbus-RTU, ASCII

Order Information:

Product	Article No.
IDL 101	457723
Accessories	
Data Cable ICL 101	428418
Modem Cable ICL 104	467522
Configuration Software	
ICP 100	633214
Cold Junction Compensation	
ICJ 104	536317

Additional Features

- ADC resolution 10 / 12 bit
- Total signal conditioning like customized linearization, scaling, and formatting
- Autocall function (alarm notification)
- Stand alone external trip relay
- Mathematical functions and operations of the channels
- Data storing in internal RAM up to 512 kB
- Fieldbus interface RS-485 for simultaneous connection of up to 32 modules at one line or to extend the number of I/O with ISM modules
- PC software for easy configuration of the modules

IDL 101 Technical Data

Analog Inputs

Number of inputs	6
Accuracy	0.2 %

Types of measurement

Voltage	
Ranges	0 to 10 V, 0 to 1 V, ± 50 mV
Input impedance	10 M Ω

Current	
Range	0 (4) to 20 mA
Input impedance	100 Ω

Resistance	2 and 4 wire
Ranges	0 to 2 k Ω
Pt100	-40 °C to +60 °C
Pt1000	-60 °C to +250°C
Measurement current	0.5 mA DC

Temperature influence	0.025 % / 10 K
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Analog/Digital Conversion

Resolution	10 / 12 bit
	0.1 %
Sampling rate	selectable 0.1 sec to 1 h

Digital Input/Output

Number of I/O	16
Input	status, counter, frequency
Input voltage	max. 30 VDC
Input current	max. 1.5 mA
Switching threshold	> 3.5 V (high)
Switching threshold	< 1.0 V (low)
Input frequency	max. 2 kHz

Output	process or host controlled
Type of output	open-collector
Output current	max. 100 mA
Output voltage	max. 30 VDC
Output frequency	max. 100 Hz

Communication interfaces

Standard	RS 485 2 wire, RS 232
Data format	selectable 8E1, 8N1
Protocols	ASCII, Profibus layer 2 and Modbus-RTU,
Baud rates	
ASCII and ModBus-RTU	2.400 to 38.400 Baud
Profibus	9.600 to 19.200 Baud
PCMCIA-interface	for flash-memory-cards (up to 8 Mbyte)
Connectable device	max. 32
Galvanic isolation	500 V

Power Supply

Supply voltage	10 to 30 VDC
	overvoltage and overload protection
	reversible semiconductor

Mechanical

Material	Aluminium and ABS
Dimensions (W x H x D)	189 x 90 x 83 mm (7.48 x 3.54 x 3.27 in)
Weight	574 g (1.27 lb)
Protective system	IP20
Mounting	DIN EN-Rail mounting
Connection	plug-in screw terminals
	max. 1.5 mm ²

Environmental

Operating temperature	-20 °C to +60 °C
Storing temperature	-30 °C to +85 °C
Humidity	5 % to 95 % at 50 °C
	non condensing

Electromagnetic Compatibility (EMC)

Electro static 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

Warm Up Time

All declarations are valid after a warm up time of 45 minutes.

Valid from October 2006. Specification subject to change without notice.
DB_IDL101_E_12.doc