envic

DP-158 DATALOGGER

- **8/16/32 analogue channels**
- **8 switch inputs (no /nc)**
- **memory 1750-7000 samples per channel**
- **outputs to printer, pc, and relays**
- **alphanumeric display, 2 lines - 20 characters**
- **programmable measurement conditions and display messages**

The DP-158 is a programmable 8, 16 or 32 channel measurement and alarm centre. In addition to measurement inputs the centre has inputs for 8 relay contact circuits.

In addition to, the actual measurement and alarm operation, the centre is equipped with memory storage, inhibit, control, and report functions.

Measurement results are channel specific according to the users choice: temperature (Pt-100 ohm RTD / thermocouple) or voltage/current/resistance with scaleable display for pressure, humidity, flow, surface height and other measurements.

Relay contact inputs are voltage free, opening or closing contacts. Contact inputs are used either as independent alarm circuits or in measurement limit value operations for inhibiting or locking actions.

Using the two serial outputs, the DP-158 centre may be connected to a PC or a printer, relay control units, parallel light board, as well as other data handling and transfer equipment.

Reading of values and programming uses the 2 x 20 character alphanumeric display and the 8 front panel push buttons. The center is also equipped with indicator lights to show the most important events and outputs.

The standard power supply is 230V 50Hz mains supply but on separate order the centre may be supplied with 18 –36 VDC.

DP-158 CONNECTIONS (16 meas. inputs)
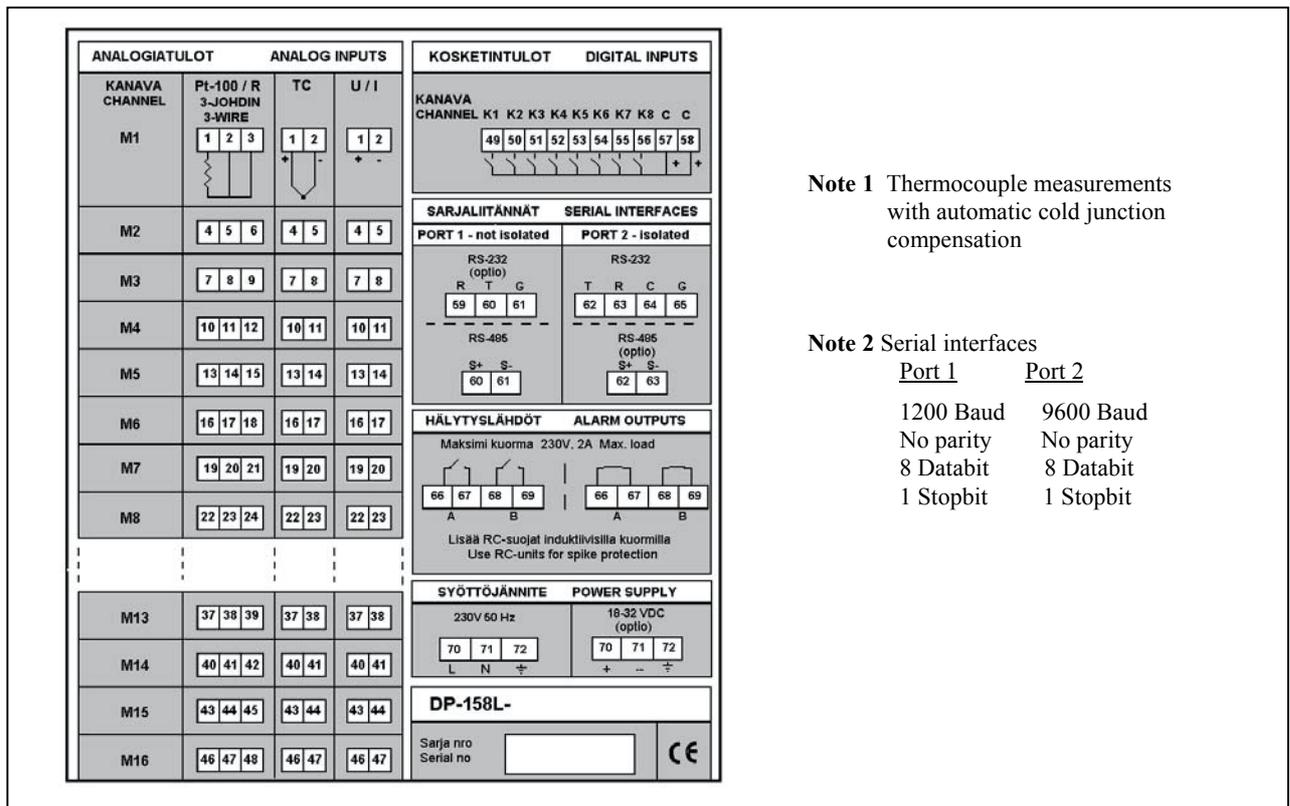
Note 1 Thermocouple measurements with automatic cold junction compensation

Note 2 Serial interfaces

	Port 1	Port 2
	1200 Baud	9600 Baud
	No parity	No parity
	8 Databit	8 Databit
	1 Stopbit	1 Stopbit

PUSH BUTTONS AND DISPLAY

Up and down arrow push buttons: select the correct letter, number or symbol, or alternatively different settings or points when defining the points

Back and forward arrow push buttons: during setting are used in the selection of different characters, or during reading transfer to the more display and back

F( )-Function push button starts all reading, programming, reporting, and calibration stages starting from the normal level

SET-push button: used to approve the selection shown in the display or the setting and to move to the next item

ESC-push button: always returns from the sub menu to the main slection menu at the normal level

ACK-push button: used to acknowledge alarms and to zero the maximum and minimum values shown in the display

POWER-light: shows when the power is ON or OFF

PROG-light: shows when the unit is at the pnogramming level

FAULT-light: shows when there is a fault in serial port data traffic

A-light: shows when there is an unacknowledged priority 1 alarm

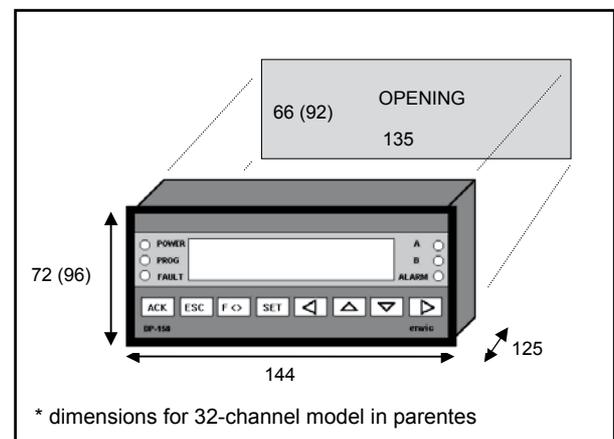***B-light:*** shows when there is an unacknowledged priority 2 alarm

ALARM-light: shows when there is an active alarm

Display: alphanumeric digital display, 2 lines - 20 characters /line

```
  ○ POWER    03 COLD STORE  H102      A  ○
  ○ PROG       -18.7 °C    L1 L2      B  ○
  ○ FAULT                          ALARM ○

  [ACK] [ESC] [F <>] [SET] [◁] [△] [▽] [▷]

  DP-158                              envic
```

TECHNICAL INFORMATION

DISPLAY	2 rows, 20 chars./row, alphanumeric, background lit LCD display. Freely programmable inputs, outputs, storage/reporting interval, limits in relation To the various measurement points.
INPUTS	8, 16 or 32 analogue and 8 contact inputs. Measurement operation and input selection/programm. using the dispaly and push buttons (or PC). Automatic or manual display stepping of the measured values.
Pt-100 ohm Thermocouple: J,K,S	Resolution 0.1°C, meas range -200.0...+850.0°C Resolution 0.1°C, meas range -260.0...+1760.0°C. auto cold junc compensation
Voltage: 50 /1000 mV Current: 0 / 4...20 mA Resistance 0...1000 Ω	Resolution 5 /100 uV. Input impedance >100 Mohm Resolution 2 µA. Input impedance 100 ohm Resolution 0.1 ohm
OUTPUTS: *Serial port RS-232/485*	Two serial bus connections, one isolated, for transferring measurement results to printer or PC, the second non-isolated, for relay control units and/or parallel light boards. Both outputs selectable in RS-232 or RS-485 serial bus form.
Alarm operation	Priority (A/B), voltage free relay contact output (max. 48V 0.5A) Sensor break alarm drives an A-class transfer relay
MEMORIES: *Measurement memory*	Measurements stored at a user selected intervals for trend information, memory capacity 7000, 3500 or 1750 samples/channel (depending on the amount of meas. channels 8, 16 or 32). Reading/output of all values or at less frequent n x 2 sample intervals and the n last stored values (n is user selectable number)
Alarm history	Max. 64 last alarm occurences stored in history data base
Program memory	Measurement parameters (inputs, scaling, limits, time settings, point identification etc.) stored in the non-volatile memory
ALARM OPERATION:	Two adjustable measurement limits/channel: limit, priority, hysteresis, delay, and inhibit/lock settings. Additional external relay unit and parallel light board control possibility
GENERAL:	Power supply 230V 50Hz ±10% or 18-36 VDC Meas. speed > 8 measurements/second Meas. precision 0.1% ±1 number Operating temp. dependence < 50 ppm/°C Flush mounting case Weight 400 g Spring connectors on the rear panel Operating temp. 0...+50°C, storage temp. -20...+70°C

DIMENSIONS

```
          66 (92)   OPENING
                    135

  72 (96)   [ DP-158 unit ]       125

          144
```

* dimensions for 32-channel model in parentes

ORDERING INFORMATION

```
DP-158L- M - P230

                    P230 = 230V 50Hz supply
                    P24  = 18-36VDC supply

              M = PC-interface
              N = standard version

        -  =  8  analogue channels
        L  = 16  analogue channels
        XL = 32  analoque channels
```

ACESSORIES

RIO-8/RRE-8	Relay unit (8 outputs)
CC-10R	Connection cabel RIO/RRE
SLP-16	Light indicator board (16-points)
LIC-232/485	Serial interface unit
TP-1/10	Power unit for acessories
MESLOG-S	PC-program