



Quick start Guide

for DeLinn 3600 MCP industrial controller.

Rev 0.0, 2007-09-04
Valid for units rev. A

<i>Safety precautions before and during installation:</i>	1
Description	2
3600 I/O layout	3
3600 I/O connections	4
Specifications	5

Safety precautions before and during installation:

- 1. Make sure that the main power supply is cut-off prior to any form of installation and service.**
2. Check that the maximum supply voltage is not exceeded during normal operation or e.g. when boost charging the battery – in such an event, place a warning sign on or near the battery indicating that the power supply must be cut off at the main switch.
3. All installation and maintenance work must be carried out in accordance with good, careful standards of workmanship and according to the provisions and applicable regulations for installation work, and only by technically competent personnel. Safety precautions described in this manual must be observed.
4. The units may only be installed and used for the purpose for which they are designed, and only in the manner described under "Installation"



TCS3600 Multi Function Timer system

All-in-one Programmable Timer Controller with GSM option

Description

MCP3600 is a SMS/GPS alarm/control unit. Functionality can be programmed with the Graphillogic PC software, which is a fast and easy-to-use graphical programming interface. GraphiLogic can control all on-board features, and provide desired functionality to all inputs and outputs. Features are built in, such as GSM/GPRS modem, GPS receiver, antennas, display - all integrated in MCP-3600.



Application examples:

- Stand alone fully programable mini PLC.
- Logging of data or events to the SD memory card, or transferring data over internet with the on-board GPRS modem.
- Monitoring unit on rubbish containers, sending an SMS to the haulage contractor, when full.
- Surveillance of building sites by connecting perimeter sensors.
- Remote control, using the on-board RTC, or by using SMS, or GPRS internet connection.
- Alarm for car, boat or motorcycle, by utilization of the on-board level/motion sensor, and GPS.
- Ventilation controller in greenhouses, sending an SMS alarm, if the temperature is not within range.
- E.t.c.

Function notes:

- SMS messages can be send to several recipients.
- If you wish to change your program, the new software can be uploaded over GPRS internet connection.
- If needed, more in- or outputs can be added by connecting e.g. a 4260 I/O with 14 outputs and 16 inputs to the RS485 bus.

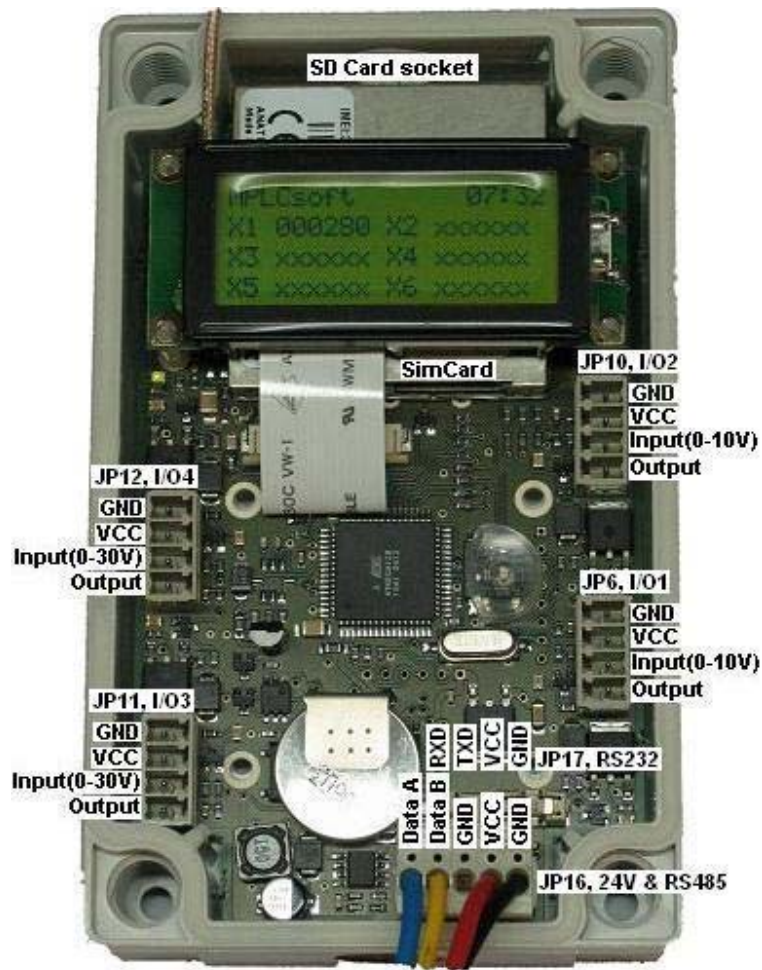
TCS3600 Multi Function Timer system

All-in-one Programmable Timer Controller with GSM option

Features:

- 4 inputs and 4 outputs.
- Inputs are programable analog or digital.
- Tilt/motion sensor.
- Onboard temperature sensor.
- Integrated 900/1800MHz GSM/GPRS modem
- GPS reciever.
- Onboard SD memory card for datalog.
- RS485/232 databus
- Remote download of software.
- Joystick for setting and adjustments.
- LCD display.
- Real time clock with battery backup.

3600 I/O layout



TCS3600 Multi Function Timer system

All-in-one Programmable Timer Controller with GSM option

3600 I/O connections

ID/Pin	Name/function	Limits	Description / alternate function
JP16,1	RS485+		RS485 bus D+ 38.400 Baud
JP16,2	RS485-		RS485 bus D-, 38.400 Baud
JP16,3	GND		GND for RS485 bus
JP16,4	VCC	30V, 8A*	VCC; 9-28V in
JP16,5	GND		GND
JP17,1	RXD		RS232 data in
JP17,2	TXD		RS232 data out
JP17,3	VCC	8A*	VCC out
JP17,4	GND		GND
JP6,1	O1, active high	5A*	Digital output
JP6,2	I1, active high	30V	Digital input / analogue 0-10V
JP6,3	VCC out	8A*	VCC out
JP6,4	GND		GND
JP10,1	O2, active high	5A*	Digital output
JP10,2	I2, active high	30V	Digital input / analogue 0-10V
JP10,3	VCC out	8A*	VCC out
JP10,4	GND		GND
JP11,1	O3, active high	5A*	Digital output
JP11,2	I3, active high	30V	Digital input / analogue 0-28V
JP11,3	VCC out	8A*	VCC out
JP11,4	GND		GND
JP12,1	O4, active high	5A*	Digital output
JP12,2	I4, active high	30V	Digital input / analogue 0-28V
JP12,3	VCC out	8A*	VCC out
JP12,4	GND		GND

* All supplies or outputs marked with a single * are limited to a total current consumption of **8A MAX**

TCS3600 Multi Function Timer system

All-in-one Programmable Timer Controller with GSM option

Specifications

Processor	16 Mhz / 10 bit ADC	
Display	LCD DOT-matrix with backlight. 20 characters x 4 lines	
Keypad	4x4 matrix and on-board micro joystick	
GSM modem	GSM / GPRS dual band 900/1800 Mhz	Telit GM862-GPS
GPS receiver	Integrated in i GM 862 modem	
SD card	128MB – 2GB	FAT12 / FAT16 (PC compatible)
Communication	1 RS 485 port 1 RS 232 port	38.400 baud, 8d, -P, S1, -F
Inputs	4 digital/analogue Response time Input impedance, input 1-2 Input impedance, input 3-4 Max input voltage, all inputs Digital low, input 1-2 Digital high, input 1-2 Digital low, input 3-4 Digital high, input 3-4 Measureable voltage, input 1-2 Measureable voltage, input 3-4	50ms 15 Kohm / 22 nf 47 Kohm / 22 nf 30 V <1 V >6 V <5 V >17 V 0-10 V 0-30 V
Outputs	4 digital, active high (supply voltage) Max load, each output	5A* (21V < VCC < 28V)
Temperature sensor	-55 til +125 degrees C	+/-0.5 deg from – 10 to +85 deg
Tilt sensor	0-2G	
Environment		-10 to +55 deg C, < 80% RH
Supply voltage	9-28V, 50mA	2A peak at SMS/GPRS transmit
Size WxDxH		801 x 130 x 35 mm
Weight		250g
Enclosure	Fibox light grey ABS polycarbonate	

* All supplies or outputs marked with a single * are limited to a total current consumption of **8A MAX**

