Operating manual

Counter module

Contents

SAFETY / LEGAL NOTICES WARNING CONCEPT

This manual contains notices that you must observe for your personal safety and to avoid damage to property. The notes on your personal safety are highlighted by a warning triangle, notes on property damage alone do not have a warning triangle. Depending on the level of danger, the warnings are presented in descending order as follows.

DANGER indicates that death or serious injury will result if proper precautions are not taken.

WARNING indicates that death or serious injury can result if proper precautions are not taken.

CAUTION indicates that minor personal injury can result if proper precautions are not taken.

NOTICE indicates that property damage can result if proper precautions are not taken.

If several hazard levels occur, the warning notice for the highest level is always used.

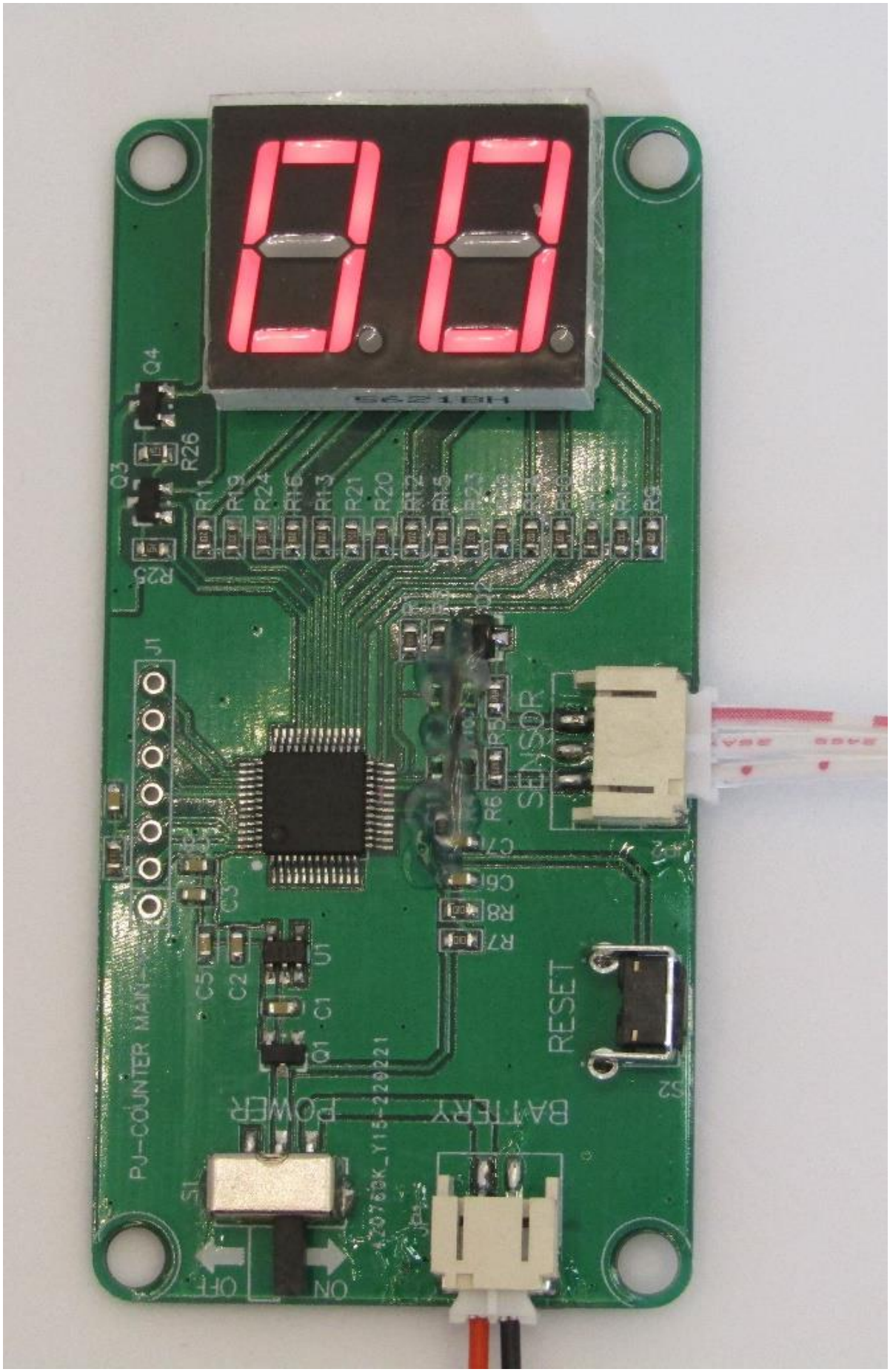
GENERAL INFORMATION

This counter module is a 2-digit counter module which is powered by 4.5 V and triggered through a U-shaped light barrier. The module is equipped with an on/off switch to power the module and a reset button to set the counter on “0”. The whole system is coming “ready to use” this means, no soldering necessary. Connect the battery (PH2.0) to the PCB-Board as well as the Light barrier (PH3.0).

If the supply voltage is too low, the display shows “lo”. For each signal change the value will be increased (n+1) up to a maximum of 99. For the next signal change (99 + 1) the display will show “00”. For operating the “reset” button, the counter will be reseted and the display shows “00”.

NOTICE

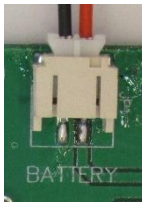
NEVER TOUCH THE ELECTRONIC COMPONENTS WITH FINGERS


PJ-COUNTER MAIN-
SENSOR
RESET
POWER
BATTERY
OFF
ON

CONNECTORS

BATTERY

The battery must be connected through the PH2.0 connector with the pcb board. Ensure the power switch is off during plug-in the switch.



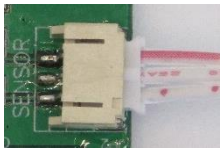
NOTICE: Never use sharp tools to load/unload batteries

Always switch off the module before changing the battery to avoid damage of electronic components

The PH2.0 is coded to avoid wrong connection! Don't use force to connect the battery

LIGHTBARRIER

The lightbarrier must be connected through the PH3.0 connector with the pcb board. Ensure the power switch is off during plug-in the switch.



NOTICE: Never use sharp tools to load/unload batteries

Always switch off the module before plug/unplug electronic components

The PH3.0 is coded to avoid wrong connection! Don't use force to connect the battery

1. POWER SWITCH

If the power switch is off, the display is dark and there is no power within the pcb board.

Directions of switch off ← → on

NOTICE: Don't use increased force to operate the power switch! This will cause serious damage to the control board

2. RESET BUTTON

If the power supply is on and the displayed value is <> 0 the display can be reset to 0.

3. Display

The Display is a 2 digit 7-segment display which can show the numbers from 00 to 99. It'll also illuminate the letters 'lo' if the voltage is too low for proper functionality of the counter module.

4. LIGHTBARRIER

The lightbarrier is a U-shape sensor with sender and receiver. The sensor generates a signal change if there's a signal change.