Electrical Instructions SDGi Micro Power Lock (MPL)

Introduction:

The micro power lock is a unique 680Kg holding force lock designed for manual and automatic doors with the PCB remotely located. If the lock(s) are to be used in conjunction with an automatic door then the PCB is generally secured in the hollow aluminium transom or the automatic door operator. If the lock(s) are to be used on a manual door then the PCB is generally secured within the PSU for the access control system or similar housing and then the cables between the door and this housing/PCB will be made off with small connectors (not supplied)

MPL lock wiring (to PCB)

- MPL Power Input: 9VDC, **RED** (+); **BLACK** (-)
- EW (early warning) Sensor Output: **WHITE (NC) BROWN (C) GRAY (NO)**, 30VDC, 0.2 A max – connects to an Alarm, CCTV or Sounder etc to inform that the door is being forced

PCB Connection:

- **Power Input:** +12~24 VDC (12V/0.28A, 24 V/0.14A)
- **DSS Sensor Input:** Normally Open – redundant in this application, link out if not already done. Will not apply power to the lock if open, can be controlled by door contacts if linked out and lock will engage as soon as it is closed.
- **MPL Lock:** Connect to MPL Power Input. Connect L+ to **RED** (+)
- **Power Output:** Connect L – to **Black** (-)
- **Exit Input:** Normally Open – a short circuit across these terminals releases the power to the lock eg Push to Exit button
- **Auto Door Control Output:** Normally Open, Relay Output. Connected to Auto Door Control Panel Output. When the lock is released it signals the door operator to open the door.
- **Alarm Relay Timer Input:** Normally Open. Short to activate the C/NC/NO/ Alarm Relay Output. Connect to EW Sensor Output **Brown** & **Gray** when opened it starts the timer set by the potentiometer on the PCB
- **Alarm Relay Output:** C/NC/NO Relay Output. 0~30 seconds delay timer

Functions:

A. Automatic door open to close sequence:

When the auto door returns to the closed position the MPL detects the armature plate and after a delay time of 0.5 seconds (to allow the auto door control relay output to deactivate) the MPL automatically locks

B. Automatic door close to open sequence:

When the PCB receives an 'Exit' input the MPL releases and after a 0.5 second delay the auto door control relay output (NO/NC changeover contacts) is activated thus allowing the door to open.

SDGi MPL - WIRING & POWER INPUT TO PCB