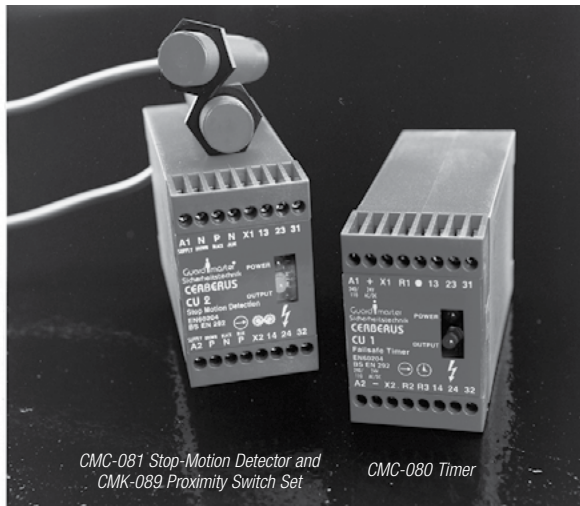


ROCKFORD SYSTEMS, LLC

INSTALLATION MANUAL FOR TIMER AND STOP-MOTION DETECTOR



CMC-081 Stop-Motion Detector and
CMK-089 Proximity Switch Set

CMC-080 Timer

INTRODUCTION

The timer and stop-motion detector are designed for use with guard locking safety switches (Titan, Atlas or Spartan) installed on machines with a rundown cycle. The timer (Part No. CMC-080) provides a rundown time for the machine before access is possible. The stop-motion detector (Part No. CMC-081) begins timing after motion (from a flywheel, gear or shaft) is no longer detected from the machine.

These are compact units designed to energize and unlock guard interlocking devices. They are housed in a 1.8" (45 mm) wide, DIN-rail mounted enclosure. The cover can be removed to access the DIP switches and the potentiometer which control the timing. The on-delay can be adjusted between 0.1 second and 40 minutes through a series of four broad time ranges:

- 0.1 - 10 seconds
- 1 - 39 seconds
- 6 seconds - 5 minutes
- 48 seconds - 40 minutes

These units feature LED indicators for power, timer-on and outputs. Remote indication is also possible with the timer unit. The outputs and timer circuit fail to a safe condition and are cross monitored.

When power is applied to the timer, it powers up (red LED illuminates) and starts operation. When the selected time delay is reached, the Signal LED turns

Green indicating that the safety outputs are opened and the auxiliary output is now Off.

The stop-motion detector uses two independent inputs (the proximity switch set can be used for this - supplied separately) and monitors two metal, moving parts of the machine. This means it can detect when hazardous motion has stopped. Should either input detect motion, the machine guard remains locked. This capability is essential on machines which do not have a consistent rundown time.

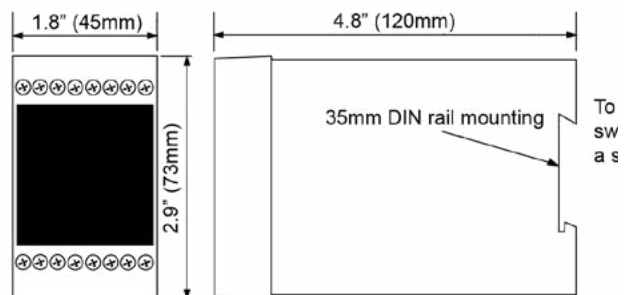
When power is applied to the stop-motion detector, it powers up (red LED illuminates). When motion is no longer detected by the proximity switches, the timer starts operation and when the selected time delay is reached the Signal LED turns green. This indicates that the safety outputs are opened and the auxiliary output is now Off.

Both units feature force-guided and monitored output contacts with self-checking circuitry.

TECHNICAL SPECIFICATIONS

Power Supply: 115/230 VAC (Selectable)
 Relay Outputs: 2 NO & 1 NC
 Replaceable Fuse: 500mA
 Mounting: 35 mm DIN-rail
 Operating Temp.: 14°F to 131°F (-10°C to 55°C)
 LED Indication: Red = Power On
 Red and Green Together: Red = Timing, Green = Output

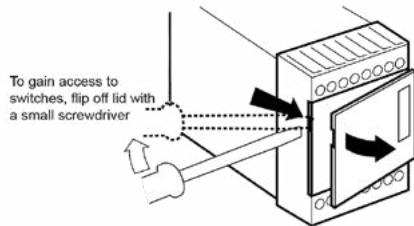
ORDERING INFORMATION	
Part Number.	Description
CMC-080	Timer Control
CMC-081	Stop-Motion Detector
CMK-089	Proximity Set



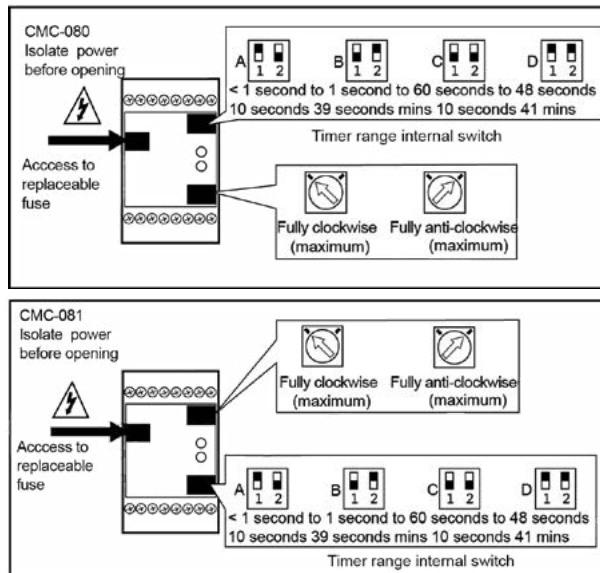
TIMER AND STOP-MOTION DETECTOR

INSTALLATION

1. Mount the timer or stop-motion detector to a DIN rail or in another suitable location.
2. Wire according to your application. (See examples.)
3. Isolate power and then open the lid of the unit using a small screwdriver.
4. Select the timer setting range. Next, use the potentiometer to fine tune the setting. Check the time delay and make sure it is set correctly.
5. The replaceable fuse is also accessed under this lid.



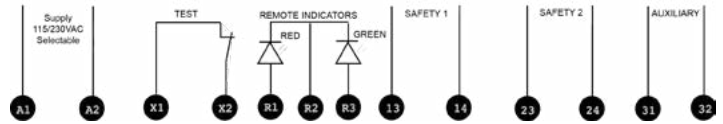
Timer Range Internal Switch Setting



SENSOR INSTALLATION

TERMINAL CONNECTIONS

For Part No. CMC-080 Timer:

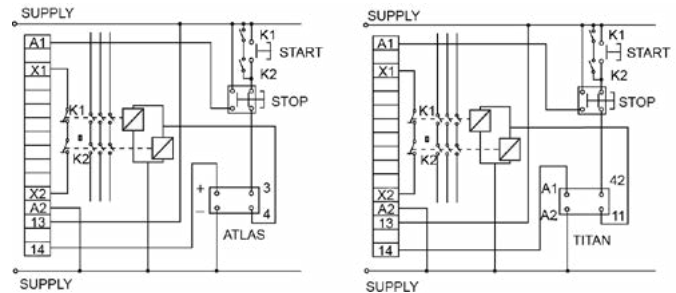


For Part No. CMC-081 Stop-Motion Detector:

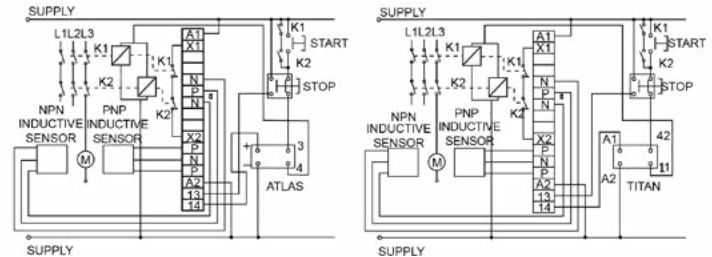


APPLICATION EXAMPLES

For Part No. CMC-080 Timer:



For Part No. CMC-081 Stop-Motion Detector:



WARRANTY, DISCLAIMER AND LIMITATION OF LIABILITY

WARRANTY

Rockford Systems, LLC warrants that this product will be free from defects in material and workmanship for a period of 12 months from the date of shipment thereof. ROCKFORD SYSTEMS LLC'S OBLIGATION UNDER THIS WARRANTY IS EXPRESSLY AND EXCLUSIVELY LIMITED to repairing or replacing such products which are returned to it within the warranty period with shipping charges prepaid and which will be disclosed as defective upon examination by Rockford Systems, LLC This warranty will not apply to any product which will have been subject to misuse, negligence, accident, restriction and use not in accordance with Rockford Systems, LLC's instructions or which will have been altered or repaired by persons other than the authorized agent or employees of Rockford Systems, LLC Rockford Systems, LLC's warranties as to any component part is expressly limited to that of the manufacturer of the component part.

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