

1217 Base Model (includes both)



1217P
Proximity sensor
only



1217C
Motion
Detector
only

**MOTION DETECTOR
PLC WATCHDOG TIMER**

The **1217** combines the control features of an underspeed motion detector and a noncontact solid state proximity sensor. It can also be used without the proximity sensor as a PLC watchdog timer.

OPERATION

The model 1217 consists of an underspeed control unit and a DC proximity sensor. The unit output relay energizes for a set time interval when it receives one control circuit pulse from the proximity sensor. A pulse consists of one opening and closing of the control circuit. Each pulse resets the time interval to zero, and the output remains energized as long as the monitored motion provides at least two pulses per set time interval. The DC proximity sensor actuates the control circuit.

The time interval is set on the unit's internal timing potentiometer. The unit output relay immediately energizes and remains energized for the set time interval when a metal object leaves the sensing field.

- 1) The output relay de-energizes after the set time interval completes if a metal object remains out of the sensing field.
- 2) The output relay de-energizes after the set time interval completes if the metal object enters and remains in the sensing field.
- 3) The output relay remains energized and the time interval resets to zero and begins timing again if a metal object enters and leaves the sensing field before the set time interval completes.
- 4) The control unit automatically completes one time interval if a metal object is not present in the sensing field when power is initially applied.

When used as a PLC watchdog the PLC provides the input pulses, application information is included on page 32.

SPECIFICATIONS 1217C

INPUT
VOLTAGE: 120VAC or 24VAC/DC
FREQUENCY: 50/60 Hz
TOLERANCE (VOLTAGE): ± 10% of nominal
POWER CONSUMPTION: 10VA maximum
TRANSIENT PROTECTION: Transformer(120V), MOV(24V)

OUTPUT
TYPE: Electromechanical relay
MECHANICAL LIFE: 10,000,000 operations
ELECTRICAL LIFE: 500,000 operations
RATING: 10A - 1/6 HP at 120VAC, 1/3 HP at 240VAC

FUNCTION
TYPE: Underspeed motion detector/PLC watchdog
TIMING RAMP: 0.06 sec to minimum - 10K ohm/sec
 0.5 sec minimum - 100K ohm/sec
TIME RANGES: 0.06 to 100 secs in 7 ranges
RANGE TOLERANCE: ≤ 10% at max, ≤ 0% at min
CONTROL: Isolated contact closure (max. resist. 100 Ω)
 or DC proximity switch (ISSC 1217P)
CONTROL TERMINALS: D-E-F
VOLTAGE PRESENT AT CONTROL TERMINALS:
 24VDC minimum, 40VDC maximum
CYCLE TIME: Minimum time control circuit closed 2ms
 Minimum time control circuit open 50ms
 Maximum control circuit pulses/sec 18
SENSING DISTANCE: 0.5 inch

PHYSICAL
OPERATING TEMP: 0° to 50°C (32° -120°F)
TIMER VARIATION VS. TEMPERATURE: ±5% max.
MOUNTING: Base mount
TERMINATION: Terminal block on face of timer
HOUSING: Metal

SPECIFICATIONS 1217P

FEATURES
VOLTAGE RANGE: 13-40VDC
MAXIMUM SWITCHING FREQUENCY: 800 pulses/sec
OUTPUT RATING: 200 mA
SENSING DISTANCE: 0.5 inch (12.7mm)
RESIDUAL VOLTAGE: ≤0.7V
SWITCHING MODE: Source/N-channel Mosfet
OUTPUT STATE: N.C.
INDICATOR: LED
OPERATING TEMP: -25° to 75°C (-13° to 175°F)
SENSING DISTANCE: 0.5 inch (12.7mm)



Kanson Electronics, Inc.

INDUSTRIAL SOLID STATE MOTION DETECTOR

MODEL 1217 BASE MOUNT

ORDERING DATA - COMPLETE UNIT INCLUDES CONTROL AND PROX SWITCH

ORDERING CODE 1217 - 1 - G - B - 1

BASIC MODEL NUMBER 1217

INPUT VOLTAGE
1 120VAC
2 24VAC/DC

TIME RANGE in seconds
D 0.06-1.0 H 0.06-25.0
E 0.06-2.5 J 0.06-50.0
F 0.06-5.0 K 0.06-100
G 0.06-10.0

OUTPUT
B Relay 1 N.O., 1 N.C.
B1 Relay 2 N.O.
B2 Relay 2 N.C.

LOCATION OF SENSING AREA
1 End
2 Right
3 Left



ORDERING DATA - CONTROL ONLY

ORDERING CODE 1217C - 1 - G - B

BASIC MODEL NUMBER 1217C

INPUT VOLTAGE
1 120VAC
2 24VAC/DC

TIME RANGE in seconds
D 0.06-1.0 H 0.06-25.0
E 0.06-2.5 J 0.06-50.0
F 0.06-5.0 K 0.06-100
G 0.06-10.0

OUTPUT
B Relay 1 N.O., 1 N.C.
B1 Relay 2 N.O.
B2 Relay 2 N.C.

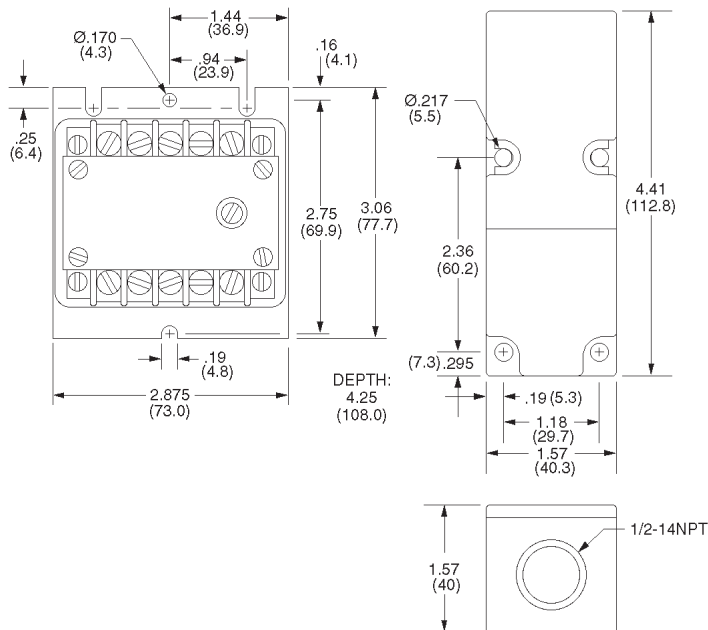
ORDERING DATA - PROX SWITCH ONLY

ORDERING CODE 1217P - 1

BASIC MODEL NUMBER 1217P

LOCATION OF SENSING AREA
1 End
2 Right
3 Left

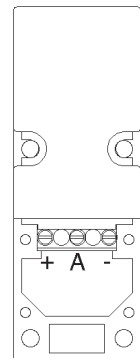
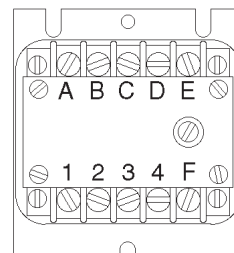
DIMENSIONS inches(millimeters)



WIRING

Motion Detector

- A-B Voltage input(constant)
- C Not used
- D DC(-) to terminal - on prox sensor
- E Control to Terminal A on prox sensor
- F DC(+) to terminal + on prox sensor
- 1-2 N.O. timed(except B2, N.C.)
- 3-4 N.C. timed(except B1, N.O.)



PLC watchdog timer

- A-B Voltage input(constant)
- C Not used
- D Common on PLC
- E +24V pulsed output from PLC
- F Not used
- 1-2 N.O. timed(except B2, N.C.)
- 3-4 N.C. timed(except B1, N.O.)

INSTALLATION RECOMMENDATION: The standard unit is insensitive to most induced voltage transients on the control leads (E-F). Although not mandatory, shielding the leads is recommended. Reasonable care should be taken to eliminate control lead runs in conduit or trays with high voltage lines(1000V or greater).