Eberle Design Inc.

Loop Monitor^{TM} Series

LM222 Inductive Loop Detector

EDI

EBERLE DESIGN INC.

WHAT IS A LOOP MONITOR™?

◆ The LM series Loop Monitor™ from EDI takes vehicle detection one step further...

  » It not only indicates vehicle presence with great accuracy and reliability, but also monitors the condition of the loop for diagnostic purposes.

DETECTION FEATURES

◆ **Automatic Tuning**

    » Tunes on power up and after mode, sensitivity or frequency change.

    » Fulltime environmental tracking compensates for changes in ambient conditions.

    » Eight Levels of Sensitivity

        › Allows the user to fine tune the loop monitor for a specific application.

DETECTION FEATURES

- ◆ Four Loop Frequencies
  - » Allows more choices for crosstalk avoidance.
- ◆ Three Operational Modes
  - » Short Presence, Long Presence or Pulse.
- ◆ Time Multiplexed Scanning
  - » Avoids crosstalk between adjacent loops connected to the same detector.
- ◆ Optically-Isolated Solid-State Outputs

DIAGNOSTIC FEATURES

- ◆ **Separate Color-coded Detect and Fault LED Indicators**
  - » Red for the Detect LED and Yellow for the Fault LED.
  - » The separation of the detect and fault LEDs allows easier determination of current and previous faults. The different colors differentiate the LEDs in the cabinet for improved readability.

DIAGNOSTIC FEATURES

◆ Loop Faults Indicated by Unique LED Flash Sequence

» Shorted Loop, Open Circuit Loop and Excessive Inductance Change.

» The flash sequences were chosen to enable the user to easily determine the type of fault just by counting the flashes.

LED OPERATION

FAULT FLASH SEQUENCE

DET ○
FLT ○ — NORMAL

DET ◎
FLT ◎ — FAULT

DET ○
FLT ◎ — PREVIOUS FAULT

○   1 FLASH   OPEN CIRCUIT OR LOOP INDUCTANCE IS GREATER THAN 2500 uH

○ ○   2 FLASHES   SHORT CIRCUIT OR LOOP INDUCTANCE IS LESS THAN 20 uH

○ ○ ○   3 FLASHES   EXCESSIVE INDUCTANCE CHANGE EXCEEDING 25% OF NOMINAL INDUCTANCE

DIAGNOSTIC FEATURES

◆ **Fault Memory**

» The Fault LED flash sequence indicates last loop fault that was detected.

» This feature can indicate the failure mode of an intermittent suspect loop.

SENSITIVITY PROGRAMMING

ON [ ] OFF

1 [ ] 0
2 [ ] 0
4 [ ] 0

PR [ ] PL
LG [ ] LSH

1 [ ] 0
2 [ ] 0

1 [ ] 0
2 [ ] 0
4 [ ] 0

HIGH
LEVEL 7
0.01%L/L

1 [ ] 0
2 [ ] 0
4 [ ] 0
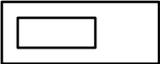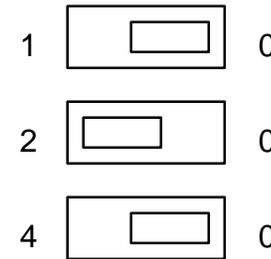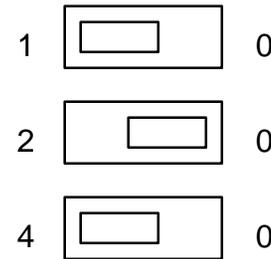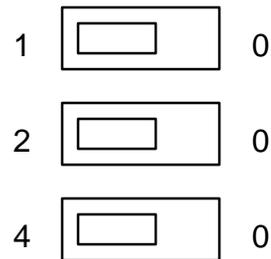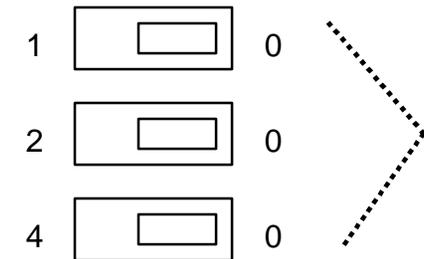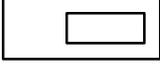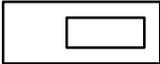
NORMAL
LEVEL 5
0.04%L/L

1 [ ] 0
2 [ ] 0
4 [ ] 0

LOW
LEVEL 2
0.32%L/L
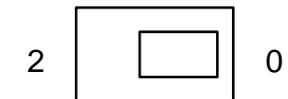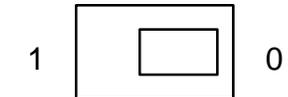
MODE PROGRAMMING
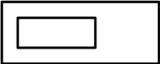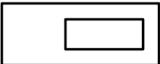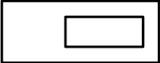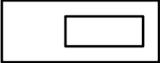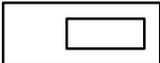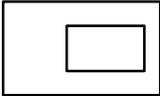
ON	▭	OFF
1	▭	0
2	▭	0
4	▭	0
PR	▭	PL
LG	▭	SH
1	▭	0
2	▭	0
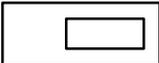
PR	▭	PL
LG	▭	SH

SHORT
PRESENCE
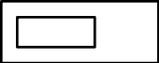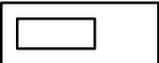
PR	▭	PL
LG	▭	SH

LONG
PRESENCE
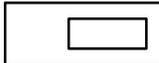
PR	▭	PL
LG	▭	SH

PULSE
MODE
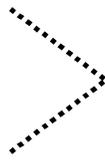
FREQUENCY PROGRAMMING

ON [ ] OFF

1 [ ] 0

2 [ ] 0

4 [ ] 0

PR [ ] PL
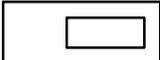
LG [ ] SH

1 [ ] 0

2 [ ] 0

1 [ ] 0
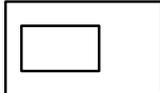
2 [ ] 0

LOW FREQUENCY

1 [ ] 0
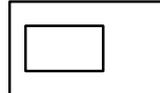
2 [ ] 0

MED LOW FREQUENCY

1 [ ] 0

2 [ ] 0

MED HIGH FREQUENCY
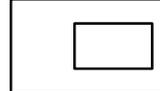
1 [ ] 0
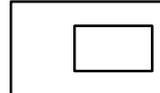
2 [ ] 0

HIGH FREQUENCY

EDI LOOP MONITOR™

Setting the Standard
for
Quality and Reliability

Eberle Design Inc.