

Peek Double Diamond Malfunction Management Unit and Conflict Monitor

Peek Traffic Corporation

The Peek Double Diamond malfunction management unit and conflict monitor is a NEMA controller that monitors traffic light controller unit activity. When a fault occurs, for example a conflict between green lights or the absence of a signal, it makes the intersection pass to flashing red lights.



Description

The Peek Double Diamond malfunction management unit can operate in one of four modes:

- True TS1. TS1 compatibility with TS1 card: includes 12 channels and 4 inputs per channel (red, yellow, green, walk)
- TS2 Type 12. TS1 compatibility with no TS1 card: includes 12 channels and 4 inputs per channel (red, yellow, green, walk)
- TS2 Type 16. TS2 compatibility with TS2 card: includes 16 channels and 3 120-volt inputs per channel (green/walk, yellow, red/don't walk)
- Compatibility with ELRA/ELRB/LSM/LNME monitors

The Peek Double Diamond ensures real-time communication with the controller unit using the SDLC protocol and EIA-485 synchronous serial communications port to exchange data on configuration, AC signal status, relay status, etc.

It is equipped with an AC signal analogy-to-digital converter, red light activator and 48 inputs with AC volt measurement display.

The malfunction management unit has a DC input for remote flash command. Remote commands also enable users to clear the power failure counter, erase the event log, set the clock and monitor the unit from a distance.

The Double Diamond is equipped with a backlit 4 line x 20 character LCD display for viewing Port 1 RS-485's red-yellow-green or red-yellow-green-walk (Type 12) status, field red-yellow-green input status, all inputs and outputs as well as program card jumpers and Port 1 communications.

It also features a practical 12-key keyboard for menu-based data entry with tactile and audible feedback that eliminates the clutter and confusion of multiple DIP switches. Password protection is provided to prevent unauthorized access.

The Peek Double Diamond records up to 300 events in a log, with dates and times, as well as additional information such as red-yellow-green status, the status of Port 1 communications and channel status at the time of the fault.

The faults and log are stored in a non-volatile memory to allow the Double Diamond to display all channels and colours of all traffic lights when power is restored.

It also features a power failure counter that logs up to 254 failures and can be reset by the user. It logs and assesses temporary abnormal signals that do not last long enough to cause a conflict.

The management unit allows the user to manually recall the last 20 red-yellow-green sequences previous to the active display, the current fault or a logged fault.

The Peek Double Diamond malfunction management unit and conflict monitor meets the requirements of the NEMA TS1-1989 standard for conflict monitors and the NEMA TS2-2003 v.02-06 standard for malfunction management units. It is backward compatible with the TS1 standard with no wiring changes.

Specifications

General characteristics

- Compatible with TS1 and TS2 programming cards and recognition of both types
- Front panel EIA-232 port for printing the event log and all user settings and program card jumpers
- Dedicated reset button
- Selectable watchdog input for detecting malfunctioning flash logic
- Selectable fault colour combinations

Technical characteristics

- Supply voltage: 95-130 VAC, 60 Hz
- Operating temperature range: -34 to +74°C (-30 to +165°F)
- Maximum operating relative humidity: 95%
- Dimensions: 11.7 cm (wide) x 27.7 cm (high) x 22.1 cm (deep) (4.6 x 10.9 x 8.7")
- Weight: 2.2 kg (4.8 lb)

For more information: 1 800 363-5913

Created on 09.08.2025 at 10:08:22 EDT