



Global Traffic  
Technologies

# Opticom™ Infrared System

## Opticom™ 700E Series Phase Selectors Accessories

Opticom™ Infrared System Matched Component Products

October 2007

### Opticom™ Model 739 Detector Cable

#### Description

Opticom™ Model 739 Detector Cable is designed and manufactured explicitly for use with Opticom™ Detectors. It is required to connect Opticom™ Model 752E or 754E Phase Selectors to Opticom detectors. Opticom model 739 has four color-coded conductors, a conductive shield and drain, and a black PVC jacket.

This durable, high-quality cable carries the appropriate power to the Opticom detector from the Opticom phase selector and delivers the necessary quality signal to the Opticom phase selector or discriminator circuitry up to 305 meters (1,000 feet).

#### Features

- Optimized to interface Opticom detectors with Opticom phase selectors
- Ensures effective range of 760 meters with Opticom™ Infrared System components
- Durable construction
  - Suitable for direct burial
  - Suitable for conduit and mast arm pull
  - Suitable for exposed overhead installation\*



Opticom™ Model 739 Detector Cable

#### Operating Parameters

- 600 volt rating
- 75° C (167° F) temperature range
- Four-conductor AWG #20 (7x28) stranded, individually tinned copper
  - Yellow
  - Blue
  - Orange
  - Green
- Aluminized polyester shield with 20% overlap
- Drain AWG #20 (7x28) stranded, individually tinned copper
- Controlled electrical characteristics

#### Physical Dimensions

- **Outside diameter:** 7.36 mm (.29 in.)  
Available in 305-meter (1,000-foot) spool

\*Separate messenger wire required.

## Opticom™ Infrared System Matched Component Products

### Opticom™ Model 760E Card Rack

#### Description

The Opticom™ Model 760E Card Rack facilitates easy Opticom™ Phase Selector and Opticom™ Discriminator installation. The Opticom model 760E is a material component to the Opticom™ Models 752E and 754E Phase Selectors.

The Opticom model 760E consists of a metal enclosure with a dedicated card slot for one Opticom phase selector or discriminator. Either two- or four-channel units may be used.

The front panel of the Opticom model 760E includes a terminal strip for connecting the Opticom™ Detectors, as well as a 9-pin circular connector and harness to connect the phase selector's outputs, and 24 VDC to power the phase selector.

#### Features

- Conveniently located connections and harnessing (in the front)
- Rugged construction
- Stable "on-shelf" mounting
- Easy-to-read terminal designations
- Easy installation
- Compliance with CE requirements

#### TB1 Terminal Block Connections

The terminal block on the front of the Opticom model 760E, TB1, is intended for primary optical detector connections for channels A, B, C and D. It is located on the left side of the Opticom model 760E.

#### Pins Function

- 1 Channel A (1) primary detector signal input
- 2 Channel B (2) primary detector signal input
- 3 Channel C (3) primary detector signal input
- 4 Channel D (4) primary detector signal input
- 5 Detector power
- 6 Detector power
- 7 Detector ground
- 8 Detector ground



Opticom™ Model 760E Card Rack

#### J1 Connector

The J1 connector is intended to provide all the signals needed to connect Opticom phase selectors directly to a NEMA controller. It is located next to TB1.

#### Pins Function

- 1 +24 VDC
- 2 24 VDC ground
- 3 Chassis ground
- 4 Not used
- 5 Channel A priority control output
- 6 Channel B priority control output
- 7 Channel C priority control output
- 8 Channel D priority control output
- 9 Logic ground

#### Physical Dimensions

- **Length:** 21.6 cm (8.5 in.)
- **Width:** 3.3 cm (5.25 in.)
- **Height:** 13.3 cm (5.25 in.)
- **Weight:** 620 g (1.37 lbs.)

## Opticom™ Model 759 European Auxiliary Interface Panel

### Description

The Opticom™ Model 759 European Auxiliary Interface Panel (EAIP) provides a convenient area to interconnect Opticom phase selectors and terminals inside a traffic cabinet.

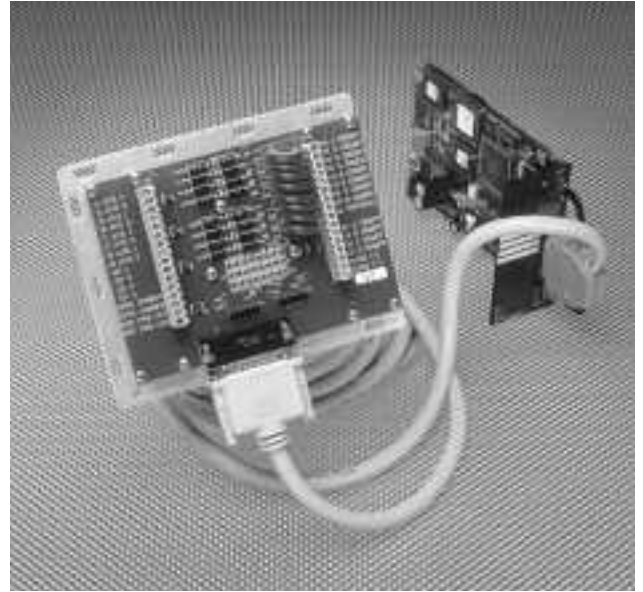
The EAIP contains two terminal blocks for wiring to the traffic cabinet signals and a 44-pin D-subminiature connector for the auxiliary interface cable.

### Features

- Conveniently located connections and harnessing
- Rugged construction
- Convenient interconnections to cabinet wiring
- Terminals that accept 22 to 16 AWG wires
- Easy-to-read terminal designations
- Easy installation
- Voltage conversion: high-voltage green sense inputs to low-voltage DC
- Compliance with CE requirements

### Physical Dimensions

- **Length:** 17.4 cm (6.875 in.)
- **Width:** 14.3 cm (5.625 in.)
- **Height:** 3.5 cm (1.375 in.)
- **Weight:** 230 g (0.5 lbs.)



Opticom™ Model 759 European Auxiliary Interface Panel (right), connected to Opticom™ Model 754E Phase Selector

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