

## Specifications

### Power Requirements

Voltage range:  
10 to 14 VDC, 12 volts nominal

Current draw:  
2 amps min.  
4 amps max.

Maximum ripple:  
0.5 VAC PP

### Operating Temperature

Minimum: -40°F (-40°C)  
Maximum: +160°F (+71.1°C)

### Surge Protection

External air gap arrester (MDSA)

### Transmitter

Track voltage:  
35 volt RMS max.  
.125 volt RMS min.

Frequency stability:  $\pm .05\%$   
Phase stability:  $\pm 1^\circ$

### Relay Drive

12 VDC nominal: 250 to 1,000 ohms

### Frequency Range

85 to 1000 Hz

### Dimensions

HXP-3:  
Height: 14.6 in (370.8 mm)  
Width: 19.25 in (489 mm)  
Depth: 10.75 in (273.1 mm)

HXP-3R:  
Height: 14.6 in (370.8 mm)  
Width: 19.25 in (489 mm)  
Depth: 10.75 in (273.1 mm)

HXP-3R2:  
Height: 24.5 in (622.3 mm)  
Width: 19.25 in (489 mm)  
Depth: 10.75 in (273.1 mm)

### Weight

HXP-3:  
23 pounds (10.42 kg) dual track  
20 pounds (9.1 kg) single track

HXP-3R:  
23 pounds (10.42 kg)

HXP-3R2:  
40 pounds (18.12 kg) dual track  
34 pounds (15.4 kg) single track

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# GE Transportation

The HXP-3 series of constant warning time crossing control units from GE - Transportation provides consistent detection times with varying train speeds. Interfacing advanced microprocessor technology with long-term reliability, ease of maintenance, and design flexibility, HXP-3 systems help reduce total installation and maintenance expense.

With a single island module for all crossings, this processor provides single or double track monitoring. Double-track units can use different frequencies on each track. Units work on approaches from 240 to 7,500 feet and accommodate remote installations having up to 3,500 feet of track wire.



The HXP-3 offers enhanced rusty rail performance and is compatible with high-current cab signals. It shares module compatibility with the PMD-3 and the HXP/PMD-3. It includes all features found in earlier HXP models as well as more advanced operating and recording options.

The HXP-3 is available in three models:

HXP-3 provides stand-alone operation for single or double track applications.

HXP-3R provides built-in redundancy for single track applications.

HXP-3R2 provides built-in redundancy for single or double track applications.

# Crossing Processor HXP-3

## Constant Warning Time Crossing Activation



## Options

An Auxiliary Crossing Driver module (AXD) provides the HXP-3 with three additional independent constant warning outputs which may be used for:

- Remote start operation.
- Traffic signal preemption.
- MD relay drive function when two relay drives are required at a double track crossing.
- A single AXD relay drive output to control both tracks at a double track crossing.

The HXP-3 offers two multi-functional recorder options to enhance record keeping, improve maintenance, and reduce installation time. The first option is the HXP-3's original RMM, providing the following records for all HXP-3 configurations:

- Train record log – reports all HXP-3 inputs and outputs
- System event log – an accurate time-stamped sequential log of all HXP-3 input and output status changes
- Train data log – a time-stamped data log containing RX and phase changes related to individual train moves
- External event log – event logging for up to 14 optically isolated digital inputs and 4 analog outputs (requires use of a recorder interface module)

Onboard storage of local parameters transfers setup information between normal and standby systems to reduce installation time.

The second recorder option is the HCA-3 module. It provides the following standard recorder logs (train record, system event, train data, and onboard storage of local parameters) as described above. The HCA-3 module also provides these enhanced recorder features:

- HCA data log – event logging for up to 14 optically isolated digital inputs and 4 analog outputs in a GDA compatible format (requires use of a recorder interface module)
- Can be programmed with existing HCA-1 ALP executable files
- Allows data retrieval either by a modem/serial port interface or through the HXP-3's CPU module
- Offers compatibility with all HCA-1 software utility programs

## Accessories

### Shunts

- NBS-1 with 10 ft (3.048 m) leads
- NBS-2 with 10 ft (3.048 m) leads
- NBS-3 with 10 ft (3.048 m) leads
- 1134D-2 wide band shunt
- 1134D-3, 1134D-4, and 1134D-5 dual wide band shunts

### Frequency Selectable Shunts

- FSS-1 low impedance
- FSS-2 high impedance

### Tuned Joint Couplers

- TJC-1A
- TJC-2A
- TJC-3A
- TJC2/CAB

### Dummy "Track" Loads

- 1186A-1: 1,000 ft (304.8 m)
- 1186A-2: 2,000 ft (609.6 m)

### Track Isolation Units

- TIU-1, TIU-2, and TIU-3

### Track and Battery Reactors

- 5025A track reactor
- 1180B battery reactor

### Cab Signal Filters

- CSC-60
- CSC-100

### Surge Protection

- MDSA-1

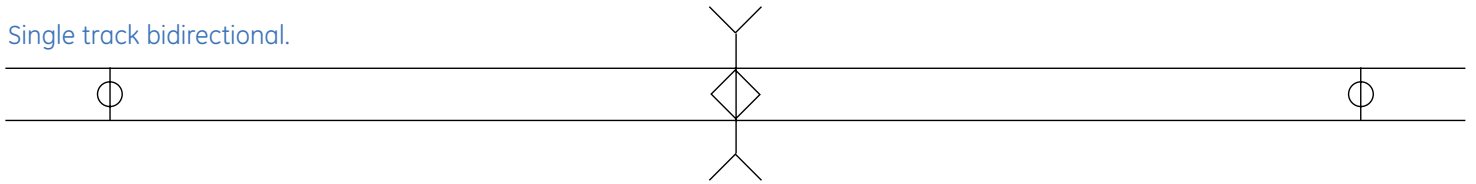
### Junction Boxes

- 385A-1 termination housing

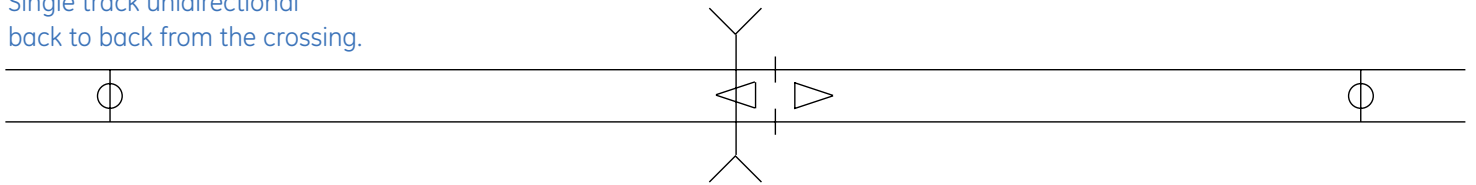


## Applications

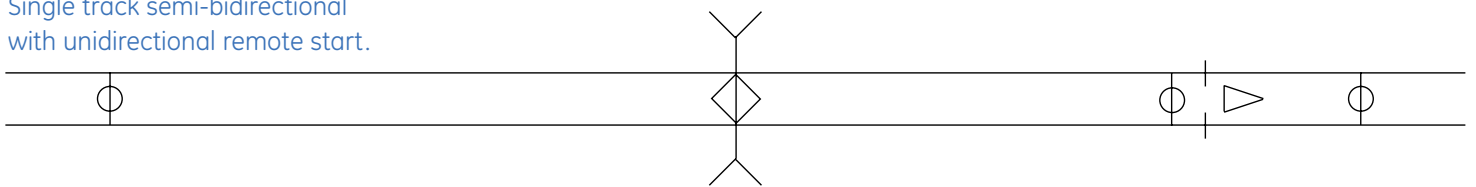
Single track bidirectional.



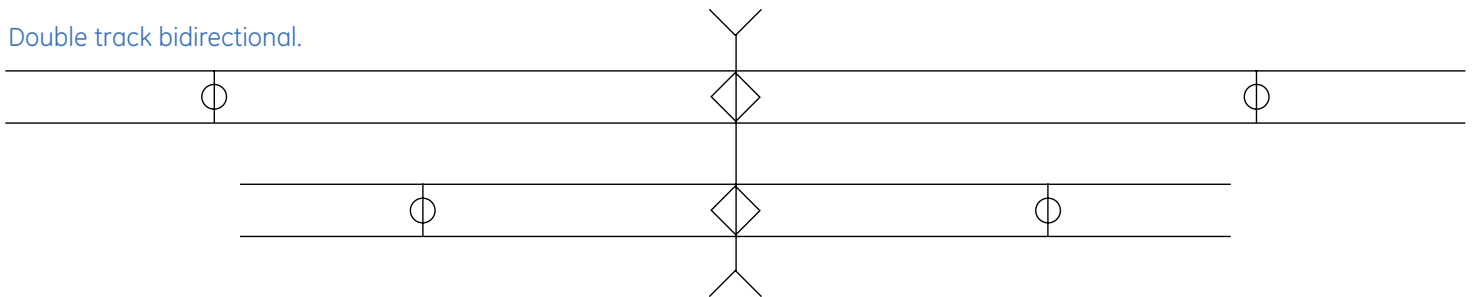
Single track unidirectional  
back to back from the crossing.



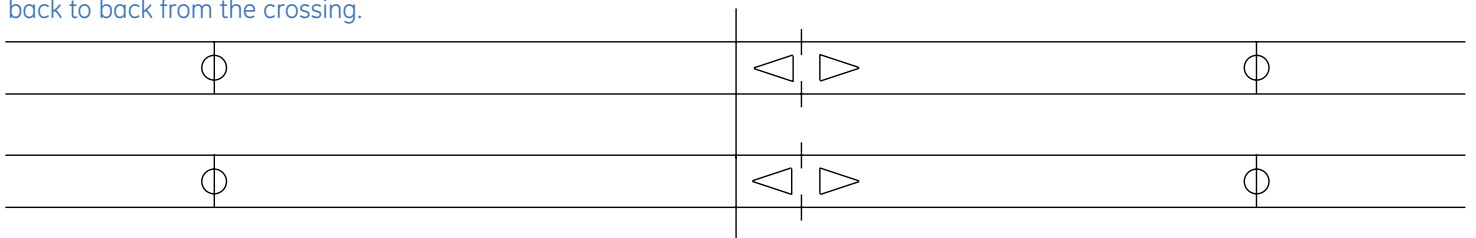
Single track semi-bidirectional  
with unidirectional remote start.



Double track bidirectional.



Double track unidirectional  
back to back from the crossing.



Double track semi-bidirectional  
with unidirectional remote start.

