



# Section 10 Fire Alarm Systems

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# Belden

# Fire Alarm Shielded Plenum

#### BELDEN

Power limited fire alarm and communications cable for plenum applications. Fire alarm, smoke detectors, signaling, fire protective circuits.

# **SPECIFICATIONS**

- 1. CONDUCTOR: Solid bare copper
- 2. INSULATION: Flamarrest
- 3. SHIELD: Beldfoil shield with a drain wire
- 4. JACKET: Red Flamarrest with ripcord
- 5. STANDARDS: NEC FPLP, UL Listed
- 6. TEMPERATURE: 75°C

#### **Technical Information & Standards**

FPLP, UL Listed

| Anixter No. | Vendor No. | Conductor<br>Size AWG | No. of<br>Conductors | Insulation<br>Thickness (in.) | Jacket<br>Thickness (in.) | Nominal<br>O.D. (in.) | Approx. Wt.<br>lb./1,000 ft. |
|-------------|------------|-----------------------|----------------------|-------------------------------|---------------------------|-----------------------|------------------------------|
| B6020FL     | 6020FL     | 12                    | 2                    | 0.011                         | 0.015                     | 0.246                 | 61                           |
| B6120FL     | 6120FL     | 14                    | 2                    | 0.011                         | 0.015                     | 0.212                 | 45                           |
| B6122FL     | 6122FL     | 14                    | 4                    | 0.011                         | 0.015                     | 0.248                 | 77                           |
| B6220FL     | 6220FL     | 16                    | 2                    | 0.010                         | 0.015                     | 0.181                 | 31                           |
| B6222FL     | 6222FL     | 16                    | 4                    | 0.010                         | 0.015                     | 0.211                 | 54                           |
| B6320FL     | 6320FL     | 18                    | 2                    | 0.010                         | 0.015                     | 0.158                 | 22                           |
| B6322FL     | 6322FL     | 18                    | 4                    | 0.010                         | 0.015                     | 0.183                 | 37                           |

# Fire Alarm Shielded Nonplenum

# BELDEN

Power limited fire alarm and communications cable for riser and conduit applications. Fire alarm, smoke detectors, signaling, fire protective circuits.

# **SPECIFICATIONS**

- 1. CONDUCTOR: Solid bare copper
- 2. INSULATION: PVC or PP
- 3. SHIELD: Beldfoil shield with a drain wire
- 4. JACKET: Red PVC with ripcord
- 5. STANDARDS: NEC FPLR, UL Listed
- 6. TEMPERATURE: 75°C

### **Technical Information & Standards**

FPLR, UL Listed

| Anixter No. | Vendor No. | Conductor<br>Size AWG | No. of<br>Conductors | Insulation<br>Thickness (in.) | Jacket<br>Thickness (in.) | Nominal<br>O.D. (in.) | Approx. Wt.<br>lb./1,000 ft. |
|-------------|------------|-----------------------|----------------------|-------------------------------|---------------------------|-----------------------|------------------------------|
| B5020FL     | 5020FL     | 12                    | 2                    | 0.013                         | 0.015                     | 0.251                 | 60                           |
| B5120FL     | 5120FL     | 14                    | 2                    | 0.013                         | 0.015                     | 0.217                 | 43                           |
| B5122FL     | 5122FL     | 14                    | 4                    | 0.013                         | 0.015                     | 0.255                 | 79                           |
| B5220FL     | 5220FL     | 16                    | 2                    | 0.010                         | 0.015                     | 0.178                 | 29                           |
| B5222FL     | 5222FL     | 16                    | 4                    | 0.010                         | 0.015                     | 0.208                 | 50                           |
| B5320FL     | 5320FL     | 18                    | 2                    | 0.010                         | 0.015                     | 0.155                 | 22                           |
| B5322FL     | 5322FL     | 18                    | 4                    | 0.010                         | 0.015                     | 0.170                 | 34                           |
| B5522FL     | 5522FL     | 22                    | 4                    | 0.010                         | 0.015                     | 0.145                 | 19                           |





# Belden

# Fire Alarm Nonshielded Plenum

#### BELDEN

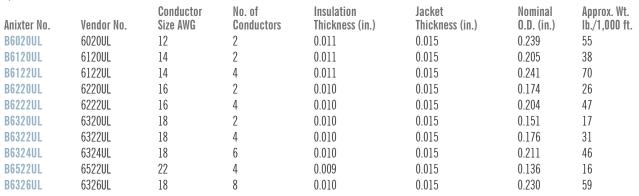
Power limited fire alarm and communications cable for plenum applications. Fire alarm, smoke detectors, signaling, fire protective circuits.

### **SPECIFICATIONS**

- 1. CONDUCTOR: Solid bare copper
- 2. INSULATION: Flamarrest
- 3. JACKET: Red Flamarrest with ripcord
- 4. STANDARDS: NEC FPLP, UL Listed
- 5. TEMPERATURE: 75°C

#### **Technical Information & Standards**

FPLP, UL Listed



# Fire Alarm Nonshielded Nonplenum

# BELDEN

Power limited fire alarm and communications cable for riser or non-riser applications. Fire alarm, smoke detectors, signaling, fire protective circuits.

#### **SPECIFICATIONS**

- 1. CONDUCTOR: Solid bare copper
- 2. INSULATION: PVC or PP
- 3. JACKET: Red PVC with ripcord
- 4. STANDARDS: NEC FPLR, UL Listed
- 5. TEMPERATURE:  $75^{\circ}$ C

#### **Technical Information & Standards**

FPLR, UL Listed

| Anixter No. | Vendor No. | Conductor<br>Size AWG | No. of<br>Conductors | Insulation<br>Thickness (in.) | Jacket<br>Thickness (in.) | Nominal<br>O.D. (in.) | Approx. Wt.<br>lb./1,000 ft. |
|-------------|------------|-----------------------|----------------------|-------------------------------|---------------------------|-----------------------|------------------------------|
| B5020UL     | 5020UL     | 12                    | 2                    | 0.013                         | 0.015                     | 0.247                 | 54                           |
| B5120UL     | 5120UL     | 14                    | 2                    | 0.013                         | 0.015                     | 0.213                 | 38                           |
| B5122UL     | 5122UL     | 14                    | 4                    | 0.013                         | 0.015                     | 0.251                 | 70                           |
| B5220UL     | 5220UL     | 16                    | 2                    | 0.010                         | 0.015                     | 0.174                 | 25                           |
| B5222UL     | 5222UL     | 16                    | 4                    | 0.010                         | 0.015                     | 0.204                 | 45                           |
| B5320UL     | 5320UL     | 18                    | 2                    | 0.010                         | 0.015                     | 0.151                 | 17                           |
| B5322UL     | 5322UL     | 18                    | 4                    | 0.010                         | 0.015                     | 0.176                 | 30                           |
| B5324UL     | 5324UL     | 18                    | 6                    | 0.010                         | 0.015                     | 0.211                 | 44                           |
| B5326UL-500 | 5326UL     | 18                    | 8                    | 0.010                         | 0.015                     | 0.230                 | 57                           |
| B5522UL     | 5522UL     | 22                    | 4                    | 0.010                         | 0.015                     | 0.125                 | 15                           |







# Belden

# Safe-T-Line Circuit Integrity (CI) Nonshielded FPLR-CI

#### BELDEN

Circuit Integrity cable for riser applications, non-conduit and nonplenum. Two hour rated fire alarm, notification devices, signaling, fire protective circuits. Two hour direct flame cables for survivability requirements according to NFPA101. Zero halogen cables.

# **SPECIFICATIONS**

- 1. Article 760 of NEC for Fire Alarm Circuit Integrity (CI). NEC-FPLR-CI. UL Standard 2196
- 2. CONDUCTOR: Bare copper solid conductors
- 3. INSULATION: Thermoset elastomer insulation
- 4. JACKET: Red polyolefin
- 5. STANDARDS: FPLR-CI, UL Listed

#### **Technical Information & Standards**

FPLR-CI, UL 2196 Listed

| Anixter No. | Vendor No.     | Conductor<br>Size AWG | Conductor<br>Strand | No. of<br>Conductors | Insulation<br>Thickness (in.) | Nominal<br>O.D. (in.) | Approx. Wt.<br>lb./1,000 ft. |
|-------------|----------------|-----------------------|---------------------|----------------------|-------------------------------|-----------------------|------------------------------|
| B5320UM     | 5320UM 0021000 | 18                    | Solid               | 2                    | 0.034                         | 0.308                 | 47                           |
| B5220UM     | 5220UM 0021000 | 16                    | Solid               | 2                    | 0.034                         | 0.33                  | 59                           |
| B5120UM     | 5120UM 0021000 | 14                    | Solid               | 2                    | 0.034                         | 0.360                 | 73                           |
| B5020UM     | 5020UM 0021000 | 12                    | Solid               | 2                    | 0.034                         | 0.392                 | 96                           |

# Safe-T-Line Circuit Integrity (CI) Shielded FPLR-CI

#### BELDEN

Circuit Integrity cable for riser applications, non-conduit and nonplenum. Fire alarm, notification devices, signaling, fire protective circuits. Two hour direct flame cables for survivability requirements according to NFPA101. Zero halogen cables.

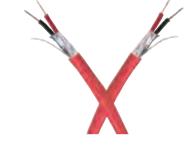
# **SPECIFICATIONS**

- 1. Article 760 of NEC for Fire Alarm Circuit Integrity (CI). NEC-FPLR-CI. UL Standard 2196
- 2. CONDUCTOR: Bare copper stranded and solid conductors
- 3. INSULATION: Thermoset elastomer insulation
- 4. SHIELDING: Corrosion resistant Beldfoil shield 100 percent coverage with tinned copper drain wire
- 5. JACKET: Red polyolefin
- 6. STANDARDS: FPLR-CI, UL Listed

#### **Technical Information & Standards**

FPLR-CI, UL 2196 Listed

| Anixter No. | Vendor No.     | Conductor<br>Size AWG | Conductor<br>Strand | No. of<br>Conductors | Insulation<br>Thickness (in.) | Nominal<br>O.D. (in.) | Approx. Wt.<br>lb./1,000 ft. |
|-------------|----------------|-----------------------|---------------------|----------------------|-------------------------------|-----------------------|------------------------------|
| B5320FM     | 5320FM 0021000 | 18                    | Solid               | 2                    | 0.034                         | 0.314                 | 50                           |
| B5220FM     | 5220FM 0021000 | 16                    | Solid               | 2                    | 0.034                         | 0.331                 | 66                           |
| B5120FM     | 5120FM 0021000 | 14                    | Solid               | 2                    | 0.034                         | 0.360                 | 84                           |
| B5100FM     | 5100FM 0021000 | 14                    | 7 x 22              | 2                    | 0.034                         | 0.384                 | 93                           |
| B5020FM     | 5020FM 0021000 | 12                    | Solid               | 2                    | 0.034                         | 0.392                 | 112                          |
| B5000FM     | 5000FM 0021000 | 12                    | 7 x 20              | 2                    | 0.034                         | 0.417                 | 117                          |





# Belden

# Safe-T-Line Circuit Integrity in Conduit (CIC) Nonshielded FPLR and UL FHIT.30 Electrical Circuit Protective Systems

#### **BELDEN**

Circuit Integrity cable for in-conduit applications. Two hour rated fire alarm, notification devices, signaling, fire protective circuits. Two hour in-conduit cables for survivability requirements according to NFPA101. Zero halogen cables.

#### **SPECIFICATIONS**

- 1. Article 760 of NEC for Fire Alarm Circuit Integrity (CI). NEC-FPLR. UL Standard 2196
- 2. CONDUCTOR: Bare copper solid conductors
- 3. INSULATION: Thermoset elastomer insulation
- 4. JACKET: Red polyolefin
- 5. STANDARDS: FPLR, UL Listed. UL 2196 for Circuit Integrity In Conduit, UL Electrical Circuit Protective Systems FHIT #30.

#### **Technical Information & Standards**

FPLR, UL 2196 Listed for use in conduits

| Anixter No. | Vendor No.     | Conductor<br>Size AWG | Conductor<br>Strand | No. of<br>Conductors | Nominal<br>O.D. (in.) |
|-------------|----------------|-----------------------|---------------------|----------------------|-----------------------|
| B5220UZ     | 5220UZ 0021000 | 16                    | Solid               | 2                    | 0.35                  |
| B5120UZ     | 5120UZ 0021000 | 14                    | Solid               | 2                    | 0.38                  |
| B5020UM     | 5020UM 0021000 | 12                    | Solid               | 2                    | 0.392                 |

# Safe-T-Line Circuit Integrity In Conduit (CIC) Shielded FPLR and UL FHIT.30 Electrical Circuit Protective Systems

### **BELDEN**

Circuit Integrity cable for in conduit applications. Fire alarm, notification devices, signaling, fire protective circuits. Two hour direct flame cables for survivability requirements according to NFPA101. Zero halogen cables.

#### **SPECIFICATIONS**

- 1. Article 760 of NEC for Fire Alarm Circuit Integrity (CI) in conduit. NEC-FPLR. UL Standard 2196
- 2. CONDUCTOR: Bare copper stranded and solid conductors
- 3. INSULATION: Thermoset elastomer insulation
- 4. SHIELDING: Corrosion resistant Beldfoil shield 100 percent coverage with tinned copper drain wire
- 5. JACKET: Red polyolefin
- 6. STANDARDS: FPLR UL Listed, UL Electrical Circuit Protective Systems FHIT #30.

### Technical Information & Standards

FPLR-CI, UL 2196 Listed

| Anixter No. | Vendor No.     | Conductor<br>Size AWG | Conductor<br>Strand | No. of<br>Conductors | Nominal<br>O.D. (in.) |
|-------------|----------------|-----------------------|---------------------|----------------------|-----------------------|
| B5220FZ     | 5220FZ 0021000 | 16                    | Solid               | 2                    | 0.360                 |
| B5120FZ     | 5120FZ 0021000 | 14                    | Solid               | 2                    | 0.380                 |
| B5020FZ     | 5020FZ 0021000 | 12                    | Solid               | 2                    | 0.420                 |



# Generic

# Fire Alarm Shielded Plenum

Power limited fire alarm and communications cable for riser or non-riser applications. Fire alarm, smoke detectors, signaling, fire protective circuits. XX in part number denotes color, call your salesperson for specific requirements.

#### **SPECIFICATIONS**

- 1. CONDUCTOR: Solid bare copper
- 2. INSULATION: FRPVC
- 3. SHIELD: Overall foil shield
- 4. JACKET: FRPVC with ripcord
- 5. STANDARDS: NEC FPLP, UL Listed
- 6. TEMPERATURE: 75°C

#### **Technical Information & Standards**

FRPVC

Solid conductor

FPLP, UL Listed

| Anixter No.      | Conductor<br>Size AWG | No. of<br>Conductors | Insulation<br>Thickness (in.) | Jacket<br>Thickness (in.) | Nominal<br>O.D. (in.) | Approx. Wt.<br>lb./1,000 ft. |
|------------------|-----------------------|----------------------|-------------------------------|---------------------------|-----------------------|------------------------------|
|                  |                       | 00114401013          | , ,                           | . ,                       |                       | - ,                          |
| FA-1202C-1-2S-XX | 12                    | 7                    | 0.011                         | 0.015                     | 0.246                 | 73                           |
| FA-1402C-1-2S-XX | 14                    | 2                    | 0.011                         | 0.015                     | 0.212                 | 45                           |
| FA-1404C-1-2S-XX | 14                    | 4                    | 0.011                         | 0.015                     | 0.248                 | 76                           |
| FA-1602C-1-2S-XX | 16                    | 2                    | 0.010                         | 0.015                     | 0.181                 | 32                           |
| FA-1604C-1-2S-XX | 16                    | 4                    | 0.010                         | 0.015                     | 0.211                 | 52                           |
| FA-1802C-1-2S-XX | 18                    | 2                    | 0.010                         | 0.015                     | 0.158                 | 23                           |
| FA-1804C-1-2S-XX | 18                    | 4                    | 0.010                         | 0.015                     | 0.183                 | 38                           |

# Fire Alarm Shielded Nonplenum

Power limited fire alarm and communications cable for riser or non-riser applications. Fire alarm, smoke detectors, signaling, fire protective circuits. XX in part number denotes color, call your local sales representative for specific requirements.

#### **SPECIFICATIONS**

- 1. CONDUCTOR: Solid or stranded bare copper
- 2. INSULATION: PVC
- 3. SHIELD: Overall foil shield
- 4. JACKET: PVC with ripcord
- 5. STANDARDS: NEC FPLR, UL Listed
- 6. TEMPERATURE: 75°C

#### **Technical Information & Standards**

PVC

Solid or stranded conductor

FPLR, UL Listed

|                  | Conductor | No. of     | Insulation      | Jacket          | Nominal    | Approx. Wt.   |
|------------------|-----------|------------|-----------------|-----------------|------------|---------------|
| Anixter No.      | Size AWG  | Conductors | Thickness (in.) | Thickness (in.) | 0.D. (in.) | lb./1,000 ft. |
| FA-1202C-1-1S-XX | 12        | 2          | 0.011           | 0.015           | 0.239      | 64            |
| FA-1402C-1-1S-XX | 14        | 2          | 0.011           | 0.015           | 0.205      | 41            |
| FA-1602C-1-1S-XX | 16        | 2          | 0.010           | 0.015           | 0.178      | 29            |
| FA-1604C-1-1S-XX | 16        | 4          | 0.010           | 0.015           | 0.208      | 51            |
| FA-1802C-1-1S-XX | 18        | 2          | 0.010           | 0.015           | 0.155      | 22            |
| FA-1802C-2-1S-XX | 18        | 2 Stranded | 0.010           | 0.015           | 0.155      | 22            |
| FA-1804C-1-1S-XX | 18        | 4          | 0.010           | 0.015           | 0.170      | 34            |



# Generic

# Fire Alarm Nonshielded Plenum

Power limited fire alarm and communications cable for riser or non-riser applications. Fire alarm, smoke detectors, signaling, fire protective circuits. XX in part number denotes color, call your local sales representative for specific requirements.

#### **SPECIFICATIONS**

- 1. CONDUCTOR: Solid or stranded bare copper
- 2. INSULATION: FRPVC
- 3. JACKET: FRPVC with ripcord
- 4. STANDARDS: NEC FPLP, UL Listed
- 5. TEMPERATURE: 75°C

#### **Technical Information & Standards**

PVC

Solid conductor FPLP, UL Listed

| Anixter No.      | Conductor<br>Size AWG | No. of<br>Conductors | Insulation<br>Thickness (in.) | Jacket<br>Thickness (in.) | Nominal<br>O.D. (in.) | Approx. Wt.<br>lb./1,000 ft. |
|------------------|-----------------------|----------------------|-------------------------------|---------------------------|-----------------------|------------------------------|
| FA-1202C-1-2N-XX | 12                    | 2                    | 0.011                         | 0.015                     | 0.238                 | 58                           |
| FA-1202C-2-2N-XX | 12                    | 2 Stranded           | 0.011                         | 0.015                     | 0.239                 | 58                           |
| FA-1402C-1-2N-XX | 14                    | 2                    | 0.011                         | 0.015                     | 0.202                 | 38                           |
| FA-1402C-2-2N-XX | 14                    | 2 Stranded           | 0.011                         | 0.015                     | 0.203                 | 38                           |
| FA-1404C-1-2N-XX | 14                    | 4                    | 0.011                         | 0.015                     | 0.236                 | 71                           |
| FA-1602C-1-2N-XX | 16                    | 2                    | 0.010                         | 0.015                     | 0.173                 | 26                           |
| FA-1604C-1-2N-XX | 16                    | 4                    | 0.010                         | 0.015                     | 0.204                 | 48                           |
| FA-1802C-1-2N-XX | 18                    | 2                    | 0.010                         | 0.015                     | 0.152                 | 18                           |
| FA-1802C-2-2N-XX | 18                    | 2 Stranded           | 0.010                         | 0.015                     | 0.154                 | 20                           |
| FA-1804C-1-2N-XX | 18                    | 4                    | 0.010                         | 0.015                     | 0.177                 | 34                           |
| FA-1806C-1-2N-XX | 18                    | 6                    | 0.010                         | 0.015                     | 0.240                 | 49                           |
| FA-2204C-1-2N-XX | 22                    | 4                    | 0.009                         | 0.015                     | 0.122                 | 16                           |
|                  |                       |                      |                               |                           |                       |                              |

# Fire Alarm Nonshielded Nonplenum

Power limited fire alarm and communications cable for riser or non-riser applications. Fire alarm, smoke detectors, signaling, fire protective circuits. XX in part number denotes color, call your local sales representative for specific requirements.

# **SPECIFICATIONS**

- 1. CONDUCTOR: Solid bare copper
- 2. INSULATION: PVC
- 3. JACKET: PVC with ripcord
- 4. STANDARDS: NEC FPLR, UL Listed
- 5. TEMPERATURE: 75°C

#### **Technical Information & Standards**

PVC

Solid conductor FPLR, UL Listed

| Anixter No.      | Conductor<br>Size AWG | No. of<br>Conductors | Insulation<br>Thickness (in.) | Jacket<br>Thickness (in.) | Nominal<br>O.D. (in.) | Approx. Wt.<br>lb./1,000 ft. |
|------------------|-----------------------|----------------------|-------------------------------|---------------------------|-----------------------|------------------------------|
| FA-1202C-1-1N-XX | 12                    | 2                    | 0.012                         | 0.015                     | 0.264                 | 62                           |
| FA-1204C-1-1N-XX | 12                    | 4                    | 0.012                         | 0.015                     | 0.258                 | 80                           |
| FA-1402C-1-1N-XX | 14                    | 2                    | 0.010                         | 0.015                     | 0.212                 | 40                           |
| FA-1404C-1-1N-XX | 14                    | 4                    | 0.010                         | 0.015                     | 0.252                 | 73                           |
| FA-1602C-1-1N-XX | 16                    | 2                    | 0.010                         | 0.015                     | 0.183                 | 28                           |
| FA-1604C-1-1N-XX | 16                    | 4                    | 0.010                         | 0.015                     | 0.216                 | 49                           |
| FA-1802C-1-1N-XX | 18                    | 2                    | 0.010                         | 0.015                     | 0.156                 | 19                           |
| FA-1804C-1-1N-XX | 18                    | 4                    | 0.010                         | 0.015                     | 0.181                 | 33                           |
| FA-1806C-1-1N-XX | 18                    | 6                    | 0.010                         | 0.015                     | 0.223                 | 49                           |
| FA-2204C-1-1N-XX | 22                    | 4                    | 0.010                         | 0.015                     | 0.122                 | 15                           |



# **GE** Security

#### Two-wire 400 Series Heat Detector

#### GF SFCURITY



The 400 Series self-diagnostic, two-wire smoke detectors continually monitor their own sensitivity and operational status and provide a visual trouble indication if they drift out of sensitivity range or fail internal diagnostics. They meet NFPA 72 field sensitivity testing requirements without the need for external meters.

#### **FEATURES**

- Two-wire detector
- Intelligent, self-diagnostic
- Low-profile design
- Available in 6 V DC, 12 V DC and 24 V DC operation
- Options include sounders, auxiliary relays, heat sensors and built-in end-of-line relay
- Meets NFPA 72 without need for external meters or ladders
- 429CT and 429CST available in 10 packs

| Anixter No. | Vendor No. | Description               |
|-------------|------------|---------------------------|
| 236030      | 429CT      | 12/24 V DC with 135 ROR   |
| 236029      | 429CST     | 135 ROR and 85 dB sounder |
| 236028      | 429CRT     | 135 ROR and aux relay     |
| 236027      | 429C       | 12/24 V DC smoke detector |
| 236026      | 429AT      | 6/12 V DC with 135 ROR    |

### Four-wire 400 Series Heat Detectors

#### **GE SECURITY**



The 400 Series self-diagnostic, four-wire smoke detectors continually monitor their own sensitivity and operational status and provide a visual trouble indication if they drift out of sensitivity range or fail internal diagnostics. They meet NFPA 72 field sensitivity testing requirements without the need for external meters.

#### **FEATURES**

- Intelligent, self-diagnostic
- Field-replaceable optical chamber
- · Low-profile design
- Plug-in terminal block
- Advanced false alarm immunity
- Available in 6 V DC, 12 V DC and 24 V DC operation

- Options include sounders, auxiliary relays, heat sensors and built-in end-of-line relay
- Meets NFPA 72 without need for external meters or ladders
- Bulk packages available for 449CT and 449CST models

| Anixter No. | Vendor No. | Description                               |
|-------------|------------|---|
| 236037      | 449CST     | 135 ROR, 85 dB sounder                    |
| 236036      | 449CSRT    | 135 ROR, aux relay, 85 dB sounder         |
| 236035      | 449CSRH    | Aux relay, 85 dB sounder isolated 135 ROR |
| 236034      | 449CRT     | 135 ROR and aux relay                     |
| 236033      | 449C       | 12/24 V DC smoke detector                 |
| 236032      | 449CT      | 12/24 V DC 135 ROR                        |
| 236031      | 449AT      | 6/12 V DC with 135 ROR                    |
| 320886      | 449CTE     | 12/24 V DC with heat, power supervision   |

### SafeAir 250-CO Detector

**GE SECURITY** 



The next generation GE SafeAir 250-CO carbon monoxide (CO) detector is an accurate and reliable means of alerting building occupants of potentially dangerous levels of CO in the protected area. The internal electro-chemical sensor communicates with a sophisticated on-board microprocessor that accurately tracks CO levels over time.

This commercial-grade detection technology results in quick response, reliable sensing, fast reset time, and superior false alarm immunity. Its small size allows the 250-CO to blend inconspicuously with any decor, and its smooth contoured design is compatible with both residential and commercial environments.

#### **FEATURES**

- Uses highly reliable, commercial-grade, electro-chemical sensing technology
- Built-in trouble/power supervision relay
- 12 or 24 V DC operation and 150 mA relay contact configurable for normally open or normally closed operation
- Long-life six-year sensor

421525

- Transmits sensor end-of-life to the control panel and central station if the system is monitored
- Fully listed to the latest UL 2075 CO standard for residential or commercial occupancies
- Adapter plate makes replacing GE 240-C0e CO detector simple

Anixter No. Vendor No. Description 421524 250-C0 SafeAir Carbon monoxide detector, alarm and trouble relays, sounder, end-of life signal, 12/24 V DC

> 250-COPLT-5PKG Adapter plate for use when replacing the GE/ESL 240-C0e CO detector with





# **GE** Security

# NX Wireless Smoke Detector

GE SECURITY



The NX smoke alarm/detector is a Learn Mode wireless sensor that uses photoelectric technology with a self-contained alarm siren, a low battery annunciator, and a status LED. The smoke alarm/detector is part of a security/fire alarm system and communicates with the system control panel.

#### **FFATIIRE**

- Long battery life up to 6.5 years
- Two 3 V lithium batteries
- 85 dB sounder
- Field replaceable optical chamber
- Self diagnostics
- Drift compensation
- · Learn mode
- NX-491NT = UL 217 and CSFM listed, with test/silence button Anixter No. Vendor No. Description

235336 NX-491NT Wireless smoke detector with test/silence button



# Bosch Security Systems, Inc.

#### D263/D273 Series Photoelectric Smoke Detectors

**BOSCH SECURITY SYSTEMS** 



The D263 and the D273 Photoelectric Smoke Detectors use an LED light source and a silicon photo diode to measure light in a chamber. In normal conditions the light source is absorbed in the chamber. The presence of a significant number of particulates allows the light to reflect to the photo diode. Diode measurements exceeding the alarm threshold cause the unit to signal an alarm condition. The detection chamber, designed for reliable smoke entry characteristics, is protected by a micro-fine insect screen to reduce dust accumulation and minimize nuisance alarms. To further reduce nuisance alarms, the D263 and D273 check their calibration. This Chamber Check feature is automatic. If the detector is out of calibration for a period exceeding 24 hours, the Trouble/Alarm LED flashes once per second, three times the normal rate. These detectors have an internal diagnostic test that is activated by an external magnet. This test results in specific LED and alarm circuit responses to indicate:

- -Detector within calibration standards
- -Detector settings outside sensitivity standards
- -Detector not operational

This test is especially useful in environmentally unstable or clean areas. The detector can be reset from the panel, after an alarm condition is cleared, by interrupting power. These detectors have a socket that accepts the D1005 test cable. The D1005 connects to the head and allows a voltmeter to read the sensitivity of the device. Depending on the specific need, the D263 and D273 series of detectors offer the following options: heat sensor, sounder, trouble relay, EOL relay and auxiliary relay. The D263 and D273 Series detectors can be used with Trim Plate TP280 for retrofit and remodeling purposes. TP280 has a diameter of 6 3/8 in. (16.2 cm).

#### **FEATURES**

- 12/24 V photoelectric smoke and combined smoke/heat detectors
- Designed for commercial or residential use
- Two-wire (D263) or four-wire (D273) application
- Chamber Check rapid-flash LED Automatic Trouble Indication reports contaminated chamber
- Flashing LED power indicator
- Steady-on LED alarm indicator
- Removable terminal block to simplify wiring connections
- · Cable connection point for voltmeter sensitivity test

Anixter No. Vendor No. Description

274219 D263 Two-wire Series photoelectric smoke detectors
231766 D273 Four-wire Series photoelectric smoke detectors

#### D285/D285TH Photoelectric Smoke Detectors

**BOSCH SECURITY SYSTEMS** 



These smoke detector heads are a part of two component modular detectors, the second component being the detector base. A variety of bases are compatible with these heads, with applications for two- and four-wire circuits operating in 12 or 24 V systems. The bases are permanently attached and wired to backboxes. The interchangeable heads quickly detach for replacement and cleaning without disturbing the circuit wiring. Head removal results in a trouble signal at the panel. The Bosch D285 Photoelectric Smoke Detector Head uses an infrared LED light source and a silicon photo diode to measure light in a chamber. In normal conditions the light source is absorbed in the chamber. The presence of a significant number of particulates allows the light to reflect to the photo diode. Diode measurements exceeding the alarm threshold cause the unit to signal an alarm condition. The detection chamber, designed for reliable smoke entry characteristics, is protected by a micro-fine insect screen to reduce dust accumulation and minimize nuisance alarms. To further reduce nuisance alarms, the D285 and D285TH heads check their calibration. This Chamber Check feature is automatic. If the head is out of calibration for a period exceeding 24 hours, the Trouble/Alarm LED flashes once per second, three times the normal rate.

#### **FEATURES**

- Designed for commercial or residential use
- Two-wire or four-wire application
- Chamber Check rapid-flash LED Automatic Trouble
- Indication reports contaminated chamber
- Flashing LED power indicator
- Steady-on LED alarm indicator
- Modular design
- D285TH model incorporates a 135°F (57°C) heat sensor
- D285DH for use with the D340, D341 and D342 duct smoke detector housings

Anixter No. Vendor No. Description

274260 D285 Photoelectric smoke detectors

274262 D285TH Photoelectric smoke detectors with heat sensor



# Bosch Security Systems, Inc.

### F220P Smoke Detectors

**BOSCH SECURITY SYSTEMS** 



The F220 Series take smoke detection, alarms, testing and maintenance to the next level. For commercial or residential buildings you can minimize unwanted alarms and respond to real events quickly with fast accurate notification. The F220 series offers multicriteria detection including carbon monoxide (CO) verification of alarm events. The patented ChamberMaid technology provides a timesaving cleaning method, simply dispense compressed air through the self-sealing valve in the head to blow out contaminants.

#### **FEATURES**

- Photoelectric smoke with heat and CO options
- Advanced diagnostics with CleanMe technology
- Longer service life
- Decreased maintenance costs
- Dramatically reduce unwanted alarms
- Superior smoke detection over older technology

| Anixter No. | Vendor No. | Description                               |
|-------------|------------|---|
| 311608      | F220-P     | Photo spot smoke                          |
| 311609      | F220-PTH   | Photo smoke with thermistor               |
| 311610      | F220-PTHC  | Photo smoke with TH and CO                |
| 311604      | F220-B6    | Two-wire base                             |
| 311605      | F220-B6C   | Four-wire base with auxiliary relay       |
| 311606      | F220-B6E   | Four-wire base with EOL relay             |
| 311607      | F220-B6R   | Four-wire base                            |
| 311601      | F220-135   | Rate of rise heat detector                |
| 311602      | F220-135F  | Fixed temp 135° heat detector             |
| 311603      | F220-190F  | Fixed temp 190° heat detector             |
| 311779      | SMK-TM     | Smoke detector test magnet (limited life) |

# D296 24 V Projected Beam Smoke Detector

**BOSCH SECURITY SYSTEMS** 



Each D296 or D297 Projected Beam Smoke Detector consists of a transmitter, a receiver and a remote annunciation plate. The transmitter emits a pulsed infrared beam. The receiver measures the frequency and intensity of the beam over a period of time and compares this data with a trouble and alarm thresholds. The alarm threshold is field-selectable through a switch on the receiver to one of six levels of sensitivity. The trouble threshold is preset. If the receiver senses a signal strength below the preset alarm threshold in excess of the alarm period it signals an alarm. The receiver automatically compensates for the gradual loss of signal due to dust/dirt buildup on the cover. When 50 percent of the signal is lost, the receiver will indicate trouble. When the dust/dirt buildup is cleaned or the blockage is removed, the detector automatically resets.

If the signal falls below the trouble threshold (approximately 3 percent) for more than 20 seconds, as might happen if an object blocked the beam, the receiver signals a trouble condition.

#### **FEATURES**

- 12 or 24 V models
- Operates over distances between 30 ft. (9 m) and 350 ft. (107 m)
- Six levels of switch-selectable sensitivity
- Built-in alignment sights
- Automatic range adjustment
- Automatic signal synchronization
- Automatic contamination adjustment
- Remote D306 Indicator Plate mounts within 100 ft. (30 m) of receiver and annunciates voltage, trouble and alarm conditions
- Switch-selectable alarm signal delay
- Auxiliary Form "C" alarm relay
- Built-in tamper protection
- Mounts to standard 4 in. (10 cm) square or octagonal backbox

Anixter No. Vendor No. Description

274265 D296 24 V projected beam smoke detector



# Bosch Security Systems, Inc.

# D340 Air Duct Smoke Detector Housing

**BOSCH SECURITY SYSTEMS** 



The D340 Air Duct Smoke Detector Housing is designed to mount to the ducts of HVAC systems to monitor the presence of smoke in the conditioned air. It is designed to work with two-wire photoelectric and ion smoke detectors. The efficient housing design samples the air passing through a duct and allows the detection of a potentially hazardous condition. When smoke is detected, the detector sends an alarm signal to the control panel and/or HVAC control equipment which will initiate the necessary action to control air handling systems.

#### **FEATURES**

- D340 for conventional two-wire loops
- Ion and photoelectric models
- For ducts 12 in. (30.5 cm) to 10 ft. (3 m)
- 300 to 4,000 ft./min. (1.52 to 20.3 m/sec.) air velocity
- Easy duct tube installation through the housing, cuts installation time
- Detector test and reset without removing covers
- Clear cover allows quick visual inspection
- Tube filters and dust immune smoke detector reduce maintenance
- Easy disassembly for cleaning
- UL, ULC, CSFM Listed

| Anixter No. | Vendor No. | Description         |
|-------------|------------|---------------------|
| 274264      | D340       | Duct smoke detector |

### D603/D604/D605 Heat Detectors

**BOSCH SECURITY SYSTEMS** 



The D603, D604 and D605 are electronic rate-of-rise/fixed temperature heat detectors. They are designed to work with D200 Series bases to provide general property protection. When properly installed using the D200 Series bases, tamper protection is provided by IN/OUT wiring of the positive power line. This causes the control panel to initiate a trouble signal when a detector is removed from its base. Supervision of two-wire systems is provided by the master control and EOL, four-wire system supervision is provided by an end-of-line power supervision device such as a D275, or a D293E and a EOL resistor as specified by the control manufacturer.

#### FEATURE

- Interchangeable two-wire and four-wire bases
- 12 or 24 V DC operation
- 135°F (57°C) fixed temperature 15°F (9°C) per minute rate-of-rise (D603)
- 135°F (57°C) fixed temperature heat sensor (D604)
- 190°F (88°C) fixed temperature heat sensor (D605)

| Anixter No. | Vendor No. | Description                         |
|-------------|------------|-------------------------------------|
| 274263      | D603       | Electronic fixed temperature and    |
|             |            | rate-of-rise heat detector          |
| 274273      | D604       | 135°F (57°C) fixed temperature heat |
|             |            | sensor (D604)                       |
| 274274      | D605       | 190°F (88°C) fixed temperature heat |
|             |            | sensor (D605)                       |



# Talk-A-Phone

#### Area of Rescue Command Unit

TALK-A-PHONE



These fully integrated command units accommodate up to 8 and 16 ADA-compliant Area of Rescue Stations. The unit's strobe/sounder indicates an incoming call, and LEDs indicate the calling location.

#### FEATURES

- Stations are powered by Command Unit
- Accommodates up to 8/16 ADA-compliant Area of Rescue Stations
- LEDs on Command Unit indicate calling station and line status
- Blinking LEDs indicate stations that are waiting to be answered
- · Siren sounds until call is answered; strobe flashes for duration of call
- UPS provides at least four hours battery backup; fits inside CU-8 located outside CU-8R and CU-16

| Anixter No. | Vendor No. | Description                                    |
|-------------|------------|--|
| 274465      | CU-8R      | Eight station capacity, recess mounted, wall   |
|             |            | opening: 26 1/8 in. high, 14 1/2 in. wide      |
| 230942      | CU-8       | Eight station capacity 18 3/8 in. high,        |
|             |            | 24 3/8 in. wide, 4 1/4 in. deep                |
| 230941      | CU-16      | 16 station capacity, 23.88 in. high, 24.25 in. |
|             |            | wide 4 in deen                                 |

### ETP-100EB Indoor Emergency/Area of Rescue Phone

TALK-A-PHONE



The ETP-100EB is an indoor, ADA-compliant hands-free emergency phone for use in locations such as elevators, areas of rescue, stairwells, indoor controlled-access areas, senior citizen housing and correctional facilities.

#### **FEATURES**

- Built-in auto dialer can call two numbers
- · Vandal-resistant stainless steel faceplate and metal button
- Uses regular phone lines or PBX
- Phone line-powered
- Push button once to call, then speak hands-free
- ADA-compliant

- Use MS-400 Mounting Sleeve to flush into wall or ETP-SM to surface mount
- Use ERP-SM to surface mount

Anixter No. Vendor No. Description
230952 ETP-100EB Flush-mount ADA phone
234301 ETP-100EBV Flush-mount ADA phone with voice

location identifier

## ETP-100MB Indoor Emergency/Area of Rescue Phone

TALK-A-PHONE



The ETP-100MB is an indoor, surface-mounting, ADA-compliant hands-free emergency phone for use in locations such as elevators, areas of rescue, stairwells, indoor controlled-access areas, senior citizen housing and correctional facilities.

#### FFATURE

- Built-in auto dialer can call two numbers
- Vandal-resistant stainless steel faceplate and metal button
- Uses regular phone lines or PBX
- Phone line-powered
- · Push button once to call, then speak hands-free
- ADA-compliant

Anixter No. Vendor No. Description
230953 ETP-100MB Surface-mount ADA phone
230954 ETP-100MBV Surface-mount ADA phone with voice location identifier

## ETP-400C One-button Assistance Phone

TALK-A-PHONE



The ETP-400C is an outdoor-rated, ADA-compliant hands-free emergency/information phone for use in locations such as parking facilities, college campuses, controlled access gates, medical centers and industrial parks.

#### **FEATURES**

- Built-in auto dialer can call two numbers
- Auxiliary input and outputs
- Vandal-resistant stainless steel
- Uses regular phone lines or PBX



# Talk-A-Phone

- Phone line-powered
- ADA-compliant
- CSA Certified to UL Standard 60950

Anixter No. Vendor No. Description

232139 ETP-400C Emergency/information phone

232140 ETP-400CV Emergency/information phone with voice

location identifier

### ETP-401C One-button Assistance Phone

TALK-A-PHONE



The ETP-401C is an outdoor-rated, ADA-compliant hands-free emergency/information phone for use in locations such as parking facilities, college campuses, controlled access gates, medical centers and industrial parks.

#### **FEATURES**

- Built-in auto dialer can call two numbers
- Auxiliary input and outputs
- Vandal-resistant stainless steel faceplate
- Uses regular phone lines or PBX
- CSA Certified to UL Standard 60950
- · Phone line-powered
- ADA-compliant

Anixter No. Vendor No. Description
230950 ETP-401C Surface-mount phone
232148 ETP-401CV Surface-mount phone with voice

location identifier

# Area of Rescue Assistance Sign

TALK-A-PHONE



This steel, back-lit sign designates a location as an ADA Area of Rescue Assistance and aids in locating an emergency phone.

#### **FEATURES**

- Attractive, attention-getting sign
- Aids with ADA compliance

- Works on 120 or 277 V AC
- Also available as area of refuge

Anixter No. Vendor No. Description

240155 ETP-SIGN/L Lighted area of rescue assistance sign 421149 ETP-SIGN/LR Lighted area of refuge assistance sign

## Area of Rescue Assistance Sign with Battery Backup

TALK-A-PHONE



This lighted Lexan sign with battery backup designates a location as an ADA Area of Rescue Assistance and aids in locating an emergency phone.

#### **FEATURES**

- Battery backup in case of power failure
- Attractive, attention-getting sign
- Aids with ADA compliance
- Works on 120/ 277 V AC
- · Also available as area of refuge

Anixter No. Vendor No. Description

240157 ETP-SIGN/LD Lighted steel area of rescue assistance sign

with battery backup

421150 ETP-SIGN/LDR Lighted area of refuge assistance sign

### Self-adhesive Area of Rescue Sign

TALK-A-PHONE



This self-adhesive sign designates a location as an ADA Area of Rescue Assistance and aids in locating an emergency phone.

#### **FEATURES**

- Raised lettering and Braille for ADA-compliance
- Constructed of ultra-violet resistant polycarbonate
- Mounts easily on wall

Anixter No. Vendor No. Description

240154 ETP-SIGN Self-adhesive area of rescue sign 421152 ETP-SIGN-R Self-adhesive area of refuge sign



We use the Anixter Infrastructure Solutions Lab to evaluate and test a wide range of emerging technologies and new products for enterprise cabling and security networks.



At Anixter, helping our customers choose the right products for their specific applications is paramount to us.







Anixter is the only distributor that has an independent, UL Certified lab that conducts 10 Gigabit Ethernet cabling testing as well as IP video surveillance testing. Our Lab gives our customers the ability to preview how new products will perform prior to purchasing them.

Anixter's Lab was called upon to help a university determine which copper cabling system would best meet current and future information technology needs. The university had a variety of different copper cabling products installed in its network infrastructure — Category 3, Category 5 and some Category 5e. Anixter's Lab deployed computer applications that the university typically carried over its cabling infrastructure including Lotus Notes, SAP and streaming video.

Testing found that the university's current infrastructure was consistently dropping information, causing the network to operate slowly and inefficiently. This same traffic was sent over a Category 6A infrastructure with no degradation to the data. Armed with testing from Anixter's Lab, university IT professionals wrote cabling infrastructure specifications around a higher performing Category 6A system that better met the university's network performance needs.

