



Motion Control Engineering

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Doc #: 42-FR-0451 B4 (JER142)  
www.nidec-mce.com

**Element Hydraulic  
Engineering Survey Form**

Page 1 of 5

In order to better serve you and meet your schedule, this form must be completed and signed. Timely delivery and trouble-free installation begin with these data forms. Accurate, complete information is essential. Non-response to a question will be defined as meaning that the item does not apply.

**Note:** For any feature, accessory, or provision **NOT** listed, Element Series will not be able to meet the requirements of your application. Please contact your MCE Sales Account Manager for an alternate product price quotation.

**Per state tax laws, it is critical that MCE receive exemption or resale certificates prior to the material being shipped and billed. If the job is a tax-exempt job, send the exemption certificate with this form. If you are a resale customer and have a resale certificate, please make sure that the MCE accounting department has a copy on file.**

**Contact:**

|               |      |
|---------------|------|
| Phone:        | Fax: |
| Cell:         |      |
| Email:        |      |
| Company name: |      |
| Signature:    |      |

|  |                 |
|--|-----------------|
| Date:  | Number of cars: |
| Job Name: (26 Chars per line)  |                 |
| _____  |                 |
| _____  |                 |
| Job Location (city and state):   |                 |
| Contract Date:   |                 |
| Project Type: <input type="checkbox"/> New construction <input type="checkbox"/> Modernization |                 |
| Customer Job #:  | PO#:            |

**Delivery Schedule**

| Control       | Delivery Date |
|---------------|---------------|
| Car " _____ " | _____         |
| Car " _____ " | _____         |

**Shipping Information**

|  |       |          |
|--|-------|----------|
| Contact:   |       |          |
| Phone:   | Fax:  |          |
| Company name and address:  |       |          |
| _____  |       |          |
| City   | State | Zip Code |
| Shipping Requirement:  |       |          |
| Advanced Notice: <input type="checkbox"/> 24 hours <input type="checkbox"/> 48 hours |       |          |
| Truck w/ Lift Gate: <input type="checkbox"/> Yes <input type="checkbox"/> No         |       |          |

**Contractor Information** ( Check if same as above)

|                           |       |          |
|---------------------------|-------|----------|
| Contact:                  |       |          |
| Phone:                    | Fax:  |          |
| Email:                    |       |          |
| Company name and address: |       |          |
| _____                     |       |          |
| City                      | State | Zip Code |

**Elevator Safety Code Compliance**

Accurate information is essential.

|   |   |                                 |
|---|---|---------------------------------|
| <b>North American Compliance:</b>   | <input type="checkbox"/> U.S.   | <input type="checkbox"/> Canada |
| <b>ASME A17.1/B44 Edition:</b>  | <input type="checkbox"/> 2019   |                                 |
|   | <input type="checkbox"/> 2016 <input type="checkbox"/> 2013 <input type="checkbox"/> 2010 <input type="checkbox"/> 2007 <input type="checkbox"/> 2004 <input type="checkbox"/> 2000 |                                 |
| <b>Addenda/Supplements:</b>   | <input type="checkbox"/> 2008(a) <input type="checkbox"/> 2005(a) <input type="checkbox"/> 2002(a)  |                                 |
| (None for A17.1-2010 and later)   | <input type="checkbox"/> 2009(b) <input type="checkbox"/> 2005(S) <input type="checkbox"/> 2003(b)  |                                 |
| <input type="checkbox"/> ASME A17.1-1996 Addenda: <input type="checkbox"/> 1997(a) <input type="checkbox"/> 1998(b)               |   |                                 |
| <b>Additional state or local code compliance</b>  |   |                                 |
| <input type="checkbox"/> Chicago Fire Code (select one): <input type="checkbox"/> Current <b>OR</b> <input type="checkbox"/> 2001 |   |                                 |
| <input type="checkbox"/> Denver <input type="checkbox"/> Pressurized hoistway   |   |                                 |
| <input type="checkbox"/> Maryland   |   |                                 |
| <input type="checkbox"/> Massachusetts (2004)   |   |                                 |
| <input type="checkbox"/> Michigan ( <b>NOTE:</b> Detroit <b>not</b> supported.)   |   |                                 |
| <input type="checkbox"/> Nebraska   |   |                                 |
| <input type="checkbox"/> New York City  |   |                                 |
| <input type="checkbox"/> Washington State <input type="checkbox"/> Seattle  |   |                                 |

**Selective Collective** (Supports single riser installation only)

Simplex     Duplex\*\*\*

**Hoistway Configuration, Speed & Capacity**

| Floor Label *  | Landing # | Floor Height | Car ____                     | Car ____                 | Lobby Floor              | Parking Floor  |                          | Fire Service Recall Landing  |                          | Car Call Security<br><input type="checkbox"/> Key Floor Lockout<br><input type="checkbox"/> Card Reader Dry Contact.<br>(24V Contact Rating)<br>**  | Pit Flood Operation<br><input type="checkbox"/> | EMT Service<br><input type="checkbox"/>                              |  |
|--|-----------|--------------|------------------------------|--------------------------|--------------------------|--|--------------------------|--|--------------------------|---|---|--|--|
|  |           |              |                              |                          |                          | Main   | Alternate                | Main   | Alternate                |   |   |  |  |
|  |           | O.H.         | <b>Select floors served:</b> |                          |                          |  |                          |  |                          |   |   |  |  |
|  | 6         | 5-6          | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>   |  |
|  | 5         | 4-5          | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>   |  |
|  | 4         | 3-4          | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>   |  |
|  | 3         | 2-3          | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>   |  |
|  | 2         | 1-2          | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>   |  |
|  | 1         | Pit          | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>   |  |
| Capacity <input type="checkbox"/> lbs. <input type="checkbox"/> kg       |           |              |                              |                          |                          | If no parking floor, car stays at last call answered.  |                          | Hoistway Sensor(s)<br><input type="checkbox"/> Above lowest landing of recall<br><input type="checkbox"/> At or below lowest landing of recall<br><input type="checkbox"/> None<br><input type="checkbox"/> At or below designated level |                          | Key Floor Lockout Switch Location<br><input type="checkbox"/> COP<br><input type="checkbox"/> Lobby<br>Card Reader Override Switch Location<br><input type="checkbox"/> COP<br><input type="checkbox"/> Lobby<br><input type="checkbox"/> None<br><input type="checkbox"/> Independent Service Override |   | Please indicate lowest landing car can serve in an event of a flood. | Please indicate main EMT return floor. |
| Up Speed <input type="checkbox"/> fpm <input type="checkbox"/> m/s       |           |              |                              |                          |                          | <input type="checkbox"/> Park with Doors Open.<br><input type="checkbox"/> Doors stay open without demand. |                          |  |                          |   |   |  |  |
| Down Speed: <input type="checkbox"/> fpm <input type="checkbox"/> m/s    |           |              |                              |                          |                          | Egress floor ____  |                          |  |                          |   |   |  |  |
| Total Car Travel: <input type="checkbox"/> ft <input type="checkbox"/> m |           |              |                              |                          |                          |  |                          |  |                          |   |   |  |  |

\* Floor Label note: For CE or E-Motive driver board, floor label should not be more characters than the number of digital PI display characters (BBB)

\*\* Card Reader Dry Contact note: If selected, all floors will be secured by default. However, this can be changed in the controller configuration menu.

\*\*\* Only single machine room and single hoistway are supported for duplex applications.

### Line Voltage

**3-Phase AC Line Voltage** (actual measured line voltage)

- Symmetrical     Grounded Leg Delta  
(ISO transformer required)

Choose closest selection below:

- 208             220             240             440  
 460             480             575             600

- 60 Hz (standard in U.S.)     50 Hz

Available Fault Current from AC Feed (kA): \_\_\_\_\_

Standard Controller SCCR (Short Circuit Current Rating):

- Up to 50 hp: 5kA
- 51-200 hp: 10kA

If the available fault current exceeds these standard values, please notify MCE for a quote.

### Hydraulic Data

**IMPORTANT:** Only single motor operation and standard 4-coil, 120 VAC, valves are supported by this product.

**Solid State Motor Starter**

Brand:     Siemens     Sprecher + Schuh

**Pump Motor**

Motor brand: \_\_\_\_\_    HP: \_\_\_\_\_

Voltage: \_\_\_\_\_    FLA: \_\_\_\_\_

Number of Leads:    3    6    9    12

Starts per hour:     80     120

**Valve Type** (120 VAC / 4 coil valve)

Brand     EECO     Maxton  
           Blain     TKE/Dover

Model: \_\_\_\_\_

**Hydraulic Features**

- Battery Rescue (MCE HAPS)
- Life Jacket Interface
- Low Oil Switch  
Contact Status:     N/O     N/C
- Oil Tank Temperature Shutdown Switch  
(required for A17.1-2010/B44-10 and later)
- Pressure Switch Interface  
(required when top of cylinder is above top of storage tank)
- Viscosity Control
- Resynchronous Circuit for Telescopic or Dual Pistons

### Operating Features

**Earthquake Service**

- Seismic Switch  
 By MCE     By Customer

**Emergency Power Generator**

- Simplex** Resume operation after recovering to closest floor.
- Duplex** Sequentially lowers both cars to lobby. 3-position Emergency power/standby switch (Auto / Car A / Car B) will select which elevator to run.

**Fire Service Operation** (Fire Operation Provided as Standard)

- Additional Phase 1 Recall Switch  
 Nudging during Fire Recall

**Inspection/Access Requirements**

- Car Top Inspection Station by MCE (NEMA 1 only)  
 In-Car Inspection (2-position switch)  
 With Up/Down Buttons  
 Hoistway Access (2-position switch on COP required)  
 Top     Bottom

**Load Weigher**

- Discrete Load Weigher Interface

**Recall Switch**

**Car to Lobby Switch**

Recall Landing: \_\_\_\_\_    Floor Label: \_\_\_\_\_  
Park with doors:     Open     Closed  
Location of Switch:     Car     Hall

**Car to Floor Switch**

Recall Landing: \_\_\_\_\_    Floor Label: \_\_\_\_\_  
Park with doors:     Open     Closed  
Location of Switch:     Car     Hall

**Car Shut Down Switch**

Recall Landing: \_\_\_\_\_    Floor Label: \_\_\_\_\_  
Park with doors:     Open     Closed  
Location of Switch:     Car     Hall

### Hoistway

**(IMPORTANT:** Only NEMA 1 hoistway supported on this product.)

**Landing System**

- Distance Feedback**  
 LS-EDGE
- Non-distance feedback**  
 LS-QUTE-24  
 Customer Supplied
- Tape Length Required (ft):** \_\_\_\_\_
- Tape Type**  
 Steel (Standard)  
 Stainless Steel

**EECO Limit Switch**

(Note: Mechanical limits are not required with LS-EDGE landing system)

**Element Traveling Cable** (see page 5 for details)

(Hang length maximum 200 ft.)  
Cable Length Required (ft): \_\_\_\_\_  
Cable Accessories  
 Kellem Grips

**Automatic Passenger Style Doors**

**IMPORTANT:** Only fully automatic, horizontally-sliding, passenger-style doors are supported on this product.

**Built-in:** Door operator interface is built in. The controller can interface with the door operator directly.

**IPC Universal Interface:** Interface with existing operator to open loop. Uses IPC Universal Interface Board.

**SmarTraq Upgrade Kit:** Upgrades existing door operator to closed loop. Comes with drive interface and motor.

| Door Operator            |  |   |   |
|--------------------------|--|---|---|
| Manufacturer             | Model  | Interface   |   |
| Armor                    | C4   | <input type="checkbox"/> SmarTraq Upgrade Kit   |   |
|                          | 895  | <input type="checkbox"/> Built-In   |   |
| ECI                      | 1000   | <input type="checkbox"/> Built-In   |   |
|                          | 2000   | <input type="checkbox"/> Built-In   |   |
|                          | VFE2500 (220V only)                              | <input type="checkbox"/> Built-In   |   |
|                          | MOD (220V only)                                  | <input type="checkbox"/> Built-In   |   |
| GAL                      | MODHFL (220V only)                               | <input type="checkbox"/> Built-In   |   |
|                          | MODP   | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
|                          | MONXT  | <input type="checkbox"/> Built-In   |   |
|                          | MOVFE (220V only)                                | <input type="checkbox"/> Built-In   |   |
|                          | MOVFR (220V only)                                | <input type="checkbox"/> Built-In   |   |
|                          | Haughton   | T   | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |
| T1                       |  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
| TH                       |  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
| MCE                      |  | Profile   | <input type="checkbox"/> Built-In   |
|                          | SmarTraq   | <input type="checkbox"/> Built-In   |   |
| Montgomery               | MAC PMSSC  | <input type="checkbox"/> Built-In<br><input type="checkbox"/> SmarTraq Upgrade Kit                |   |
|                          | Old-Style MAC                                    | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
|                          | Otis   | 7300  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |
| 7782                     |  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
| 6970A - Reactance        |  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
| 6970A - Resistance       |  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
| AT400*                   |  | <input type="checkbox"/> Built-In   |   |
| OVL (Gear Ratio 6:67.1)  |  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
| OVL (Gear Ratio 11:33.1) |  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
| TKE/Dover                |  | 052   | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |
|                          |  | DC-62   | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |
|                          |  | DC-68   | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |
|                          | HD-70  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
|                          | HD-73  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
|                          | HD-85  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
|                          | HD-91  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
|                          | HD-98  | <input type="checkbox"/> SmarTraq Upgrade Kit   |   |
|                          | HD-LM  | <input type="checkbox"/> Built-In   |   |
|                          | MKII   | <input type="checkbox"/> IPC Universal Interface  |   |
| Type D                   | <input type="checkbox"/> IPC Universal Interface |   |   |
| Westinghouse             | A  | <input type="checkbox"/> SmarTraq Upgrade Kit   |   |
|                          | AA   | <input type="checkbox"/> IPC Universal Interface  |   |
|                          | B  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
|                          | BB   | <input type="checkbox"/> IPC Universal Interface  |   |
|                          | BB2  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
|                          | E  | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |
|                          | E4A  | <input type="checkbox"/> IPC Universal Interface  |   |
|                          | EZ   | <input type="checkbox"/> SmarTraq Upgrade Kit   |   |
|                          | HY   | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |   |

**Door Operator**

| Manufacturer | Model | Interface   |
|--------------|-------|---|
|              | MG    | <input type="checkbox"/> IPC Universal Interface<br><input type="checkbox"/> SmarTraq Upgrade Kit |
|              | MS    | <input type="checkbox"/> IPC Universal Interface  |

**Door Features**

- Door Hold Operation (non-fire operation)
  - Switch  Button (default hold time = 120 seconds)
- Infrared detector unit/photo eye
  - Cut-out switch in COP
- Nudging Output†
  - Buzzer only (doors remain open)
  - Reduced closing torque & buzzer
    - Nudging with stuck photo eye

† Buzzers/Lights must be 24VDC

**Fixtures**

- Auxiliary Car Station**
  - Discrete wiring to main COP board.
  - Provide additional serial COP board.

**Call Registration**

- Serial Car Call (standard)
- Serial Hall Call (standard)

**Lanterns & Gongs/Chimes**

- Car Lanterns†
    - Discrete  Serial 3-wire
  - Hall Lanterns† (Only Serial 3-wire supported)
  - Passing Floor Gong†
    - Passing Floor Gong Enable ("S") Button Interface
- † Buzzers/Lights must be 24VDC

**Indicators†**

- Call Registration Buzzer
  - Door Hold Light
  - Egress Floor Gong
  - In-Service Light
  - Security Light
- † Buzzers/Lights must be 24VDC

**Serial Fixture Driver Format** (Built into CPU board in controller)

- CE Electronics 3-Wire Micro Comm
- E-Motive 3-Wire Driver

**Serial Fixture Pre-Wire**

Ship Serial Boards to fixture manufacture for pre-wire:

Contact Person: \_\_\_\_\_

Phone#: (\_\_\_\_) \_\_\_\_ - \_\_\_\_

- |   |                                  |                                |
|---|----------------------------------|--------------------------------|
| <input type="checkbox"/> C.E. Electronics           | <input type="checkbox"/> EPCO    | <input type="checkbox"/> Dupar |
| <input type="checkbox"/> Innovation Industries      | <input type="checkbox"/> Monitor | <input type="checkbox"/> Mad   |
| <input type="checkbox"/> ERM                        | <input type="checkbox"/> PTL     |                                |
| <input type="checkbox"/> Elevator Contractor Office |                                  |                                |
| <input type="checkbox"/> Other                      |                                  |                                |

 Which boards to be sent?  COP  Hall Station Node

 **Voice annunciation**

- MCE CE 3-wire driver board interface (built into controller)
- Other: \_\_\_\_\_

**Element Traveling Cable**

**Part Number:** 44-03-0048

**Maximum length:** 200 feet

**Overall Diameter:** 1.37 inches (34.7 mm).

**Cable Net Weight:** 946 lbs/1000 ft (1407 kg/km).

**Conductors:** Stranded bare soft drawn copper.

**Insulation:** 60 degrees C, 300 volt rated.

**Shielded Pairs:** 2 twisted 20 AWG conductors, copper braid shield, PVC jacket.

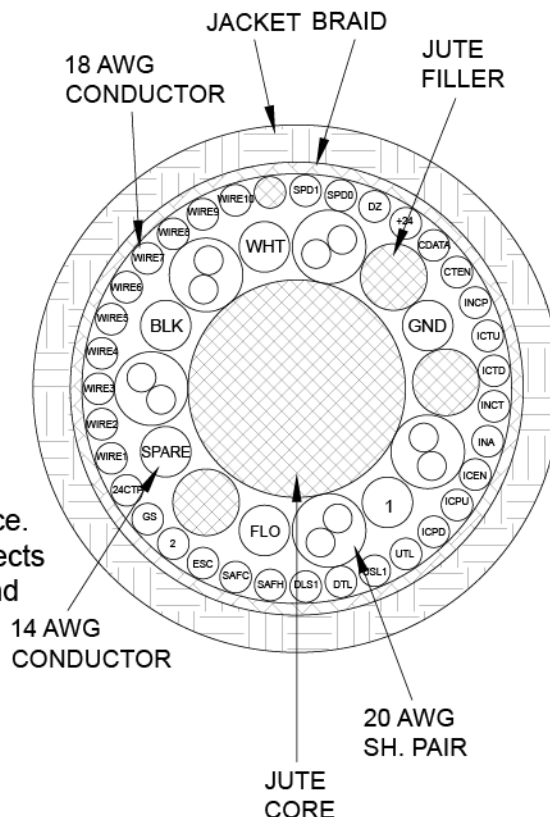
**Braid:** Rayon, 95% coverage of the core.

**Jacket:** 60 degree C PVC with wear-resistant surface. Retards flame, inhibits oxidation, resists effects of sunlight, water, oil, weathering effects, and most solvents and chemicals.

**18 AWG Wires:** 34

**20 AWG Pairs:** 5

**14 AWG Wires:** 6



| 18 AWG      |             | 20 AWG Pair     |                 |              | 14 AWG      |             |
|-------------|-------------|-----------------|-----------------|--------------|-------------|-------------|
| Conductor # | Insul Color | Conductor Color | Conductor Print | Jacket Color | Conductor # | Insul Color |
| SPD1        | Blue        | Black/White     | CANL1/CANH1     | Orange       | BLK         | Black       |
| SPD0        | Blue        | Black/White     | CANL2/CANH2     | Red          | WHT         | White       |
| DZ          | Blue        | Black/White     | T1/T2           | Black        | GND         | Green       |
| +24         | Blue        | Black/White     | SpareA/SpareB   | Tan          | 1           | Orange      |
| CDATA       | BLUE        | Black/White     | SpareC/SpareD   | Tan          | FLO         | Lavender    |
| CTEN        | Blue        |                 |                 |              | Spare       | Tan         |
| INCP        | Blue        |                 |                 |              |             |             |
| ICTU        | Blue        |                 |                 |              |             |             |
| ICTD        | Blue        |                 |                 |              |             |             |
| INCT        | Blue        |                 |                 |              |             |             |
| INA         | Blue        |                 |                 |              |             |             |
| ICEN        | Blue        |                 |                 |              |             |             |
| ICPU        | Blue        |                 |                 |              |             |             |
| ICPD        | Blue        |                 |                 |              |             |             |
| UTL         | Orange      |                 |                 |              |             |             |
| USL1        | Orange      |                 |                 |              |             |             |
| DTL         | Orange      |                 |                 |              |             |             |
| DLS1        | Orange      |                 |                 |              |             |             |
| SAFH        | Orange      |                 |                 |              |             |             |
| SAFC        | Orange      |                 |                 |              |             |             |
| ESC         | Orange      |                 |                 |              |             |             |
| 2           | Orange      |                 |                 |              |             |             |
| GS          | Orange      |                 |                 |              |             |             |
| 24CTP       | Blue        |                 |                 |              |             |             |
| Wire1 - 10  | Tan         |                 |                 |              |             |             |

**Caution:** Hoistway and traveler cables support general requirements for most installations. The customer is solely responsible for making certain that the wire count and type, cable attributes, and length are sufficient before ordering product.