



**Motion Control Engineering**  
 Voice: 916 463 9200  
 Fax: 916 463 9201

## Element Hydraulic Engineering Survey Form

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Doc #: 42-FR-0451 A3 (JER142)  
 www.nidec-mce.com

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.

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 " <u>   </u> "	_____
Car " <u>   </u> "	_____

### 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

**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:	

### 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"/> 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)	
<small>(None for A17.1-2010 and later)</small> <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	
<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	



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### 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 <input type="checkbox"/> Key Floor Lockout <input type="checkbox"/> Card Reader Dry Contact. (24V Contact Rating) <b>**</b>	Pit Flood Operation <input type="checkbox"/>	EMT Service <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.  <input type="checkbox"/> Park with Doors Open. <input type="checkbox"/> Doors stay open without demand.  Egress floor ____	Hoistway Sensor(s) <input type="checkbox"/> Above lowest landing of recall <input type="checkbox"/> At or below lowest landing of recall <input type="checkbox"/> None	Key Floor Lockout Switch Location <input type="checkbox"/> COP <input type="checkbox"/> Lobby  Card Reader Override Switch Location <input type="checkbox"/> COP <input type="checkbox"/> Lobby <input type="checkbox"/> None  <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												
Down Speed: <input type="checkbox"/> fpm <input type="checkbox"/> m/s												
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.

## 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

## 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

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

## 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  
 Kellm Grips

## Automatic Passenger Style Doors

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

### Door Operator

Manufacturer	Model	Interface
Armor	C4	<input type="checkbox"/> SmarTraq Upgrade Kit
		<input type="checkbox"/> Built-In
ECI	895	<input type="checkbox"/> Built-In
	1000	<input type="checkbox"/> Built-In
	2000	<input type="checkbox"/> Built-In
	VFE2500	<input type="checkbox"/> Built-In
GAL	MOD (220V only)	<input type="checkbox"/> Built-In
	MODHFL	<input type="checkbox"/> Built-In
	MODP	<input type="checkbox"/> IPC Universal Interface
	MOVFR (220V only)	<input type="checkbox"/> Built-In
Haughton	T	<input type="checkbox"/> IPC Universal Interface
		<input type="checkbox"/> SmarTraq Upgrade Kit
	T1	<input type="checkbox"/> IPC Universal Interface
	TH	<input type="checkbox"/> SmarTraq Upgrade Kit
MCE	SmarTraq	<input type="checkbox"/> Built-In
Montgomery	MAC PMSSC	<input type="checkbox"/> Built-In
		<input type="checkbox"/> SmarTraq Upgrade Kit
Otis	Old-Style MAC	<input type="checkbox"/> IPC Universal Interface
		<input type="checkbox"/> SmarTraq Upgrade Kit
	7300	<input type="checkbox"/> IPC Universal Interface
	7782	<input type="checkbox"/> IPC Universal Interface
		<input type="checkbox"/> SmarTraq Upgrade Kit
	6970A - Reactance	<input type="checkbox"/> IPC Universal Interface
		<input type="checkbox"/> SmarTraq Upgrade Kit
	6970A - Resistance	<input type="checkbox"/> IPC Universal Interface
		<input type="checkbox"/> SmarTraq Upgrade Kit
	OVL (Gear Ratio 6:67.1)	<input type="checkbox"/> IPC Universal Interface
	<input type="checkbox"/> SmarTraq Upgrade Kit	
OVL (Gear Ratio 11:33.1)	<input type="checkbox"/> IPC Universal Interface	
	<input type="checkbox"/> SmarTraq Upgrade Kit	
TKE/Dover	052	<input type="checkbox"/> IPC Universal Interface
	DC-62	<input type="checkbox"/> IPC Universal Interface
		<input type="checkbox"/> SmarTraq Upgrade Kit
	DC-68	<input type="checkbox"/> IPC Universal Interface
		<input type="checkbox"/> SmarTraq Upgrade Kit
	HD-70	<input type="checkbox"/> IPC Universal Interface
	HD-73	<input type="checkbox"/> IPC Universal Interface
	HD-85	<input type="checkbox"/> SmarTraq Upgrade Kit
	HD-91	<input type="checkbox"/> IPC Universal Interface
	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
	BB	<input type="checkbox"/> IPC Universal Interface
	BB2	<input type="checkbox"/> IPC Universal Interface
		<input type="checkbox"/> SmarTraq Upgrade Kit
	E	<input type="checkbox"/> IPC Universal Interface
		<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
		<input type="checkbox"/> SmarTraq Upgrade Kit
MG	<input type="checkbox"/> IPC Universal Interface	
	<input type="checkbox"/> SmarTraq Upgrade Kit	
MS	<input type="checkbox"/> IPC Universal Interface	

**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 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<sup>†</sup>
  - Buzzer only (doors remain open)
  - Reduced closing torque & buzzer
    - Nudging with stuck photo eye

<sup>†</sup> 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<sup>†</sup>
  - Discrete  Serial 3-wire
- Hall Lanterns<sup>†</sup> (Only Serial 3-wire supported)
- Passing Floor Gong<sup>†</sup>
  - Passing Floor Gong Enable ("S") Button Interface

<sup>†</sup> Buzzers/Lights must be 24VDC

#### Indicators<sup>†</sup>

- Call Registration Buzzer
- Door Hold Light
- Egress Floor Gong
- In-Service Light
- Security Light

<sup>†</sup> 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: \_\_\_\_\_

**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.

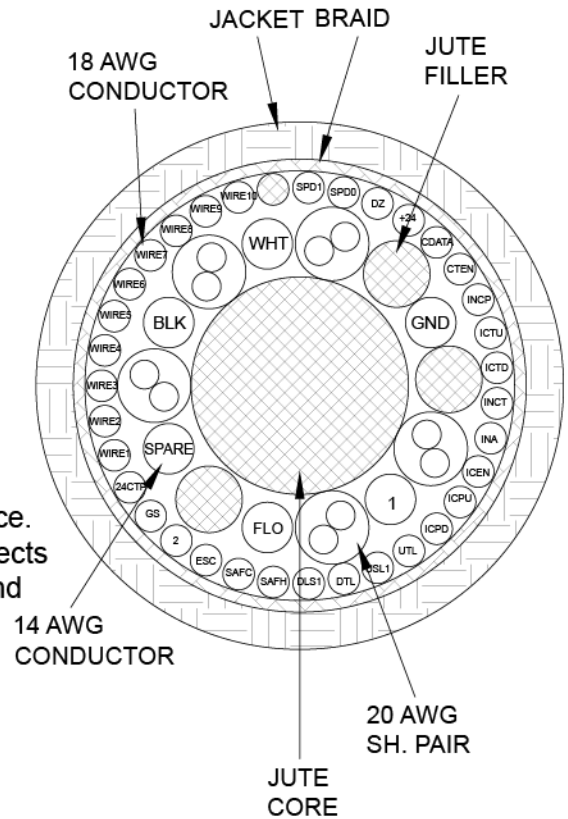
**Braid:** Rayon, 95% coverage of the core.

**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.