



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

Element Traction
Engineering Survey Form

Page 1 of 5

Doc #: 42-FR-0452 A4 (JER144)
www.nidec-mce.com

Logistics Data

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 "___"	_____
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

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.

North American Compliance:	<input type="checkbox"/> U.S.	<input type="checkbox"/> Canada
ASME A17.1/B44 Edition:		
<input type="checkbox"/> 2016	<input type="checkbox"/> 2013	<input type="checkbox"/> 2010 <input type="checkbox"/> 2007 <input type="checkbox"/> 2004 <input type="checkbox"/> 2000
Addenda/Supplements:		
(None for A17.1-2010 and later)		
<input type="checkbox"/> 2008(a)	<input type="checkbox"/> 2005(a)	<input type="checkbox"/> 2002(a)
<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)		
Additional state or local code compliance		
<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 (NOTE: Detroit not supported.)		
<input type="checkbox"/> Nebraska		
<input type="checkbox"/> New York City		
<input type="checkbox"/> Washington State	<input type="checkbox"/> Seattle	



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Hoistway Configuration

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) **	Pit Flood Operation <input type="checkbox"/>	EMT Service <input type="checkbox"/>	
						Main	Alternate	Main	Alternate				
		O.H.	Select floors served:										
	16	15-16	<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"/>	
	15	14-15	<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"/>	
	14	13-14	<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"/>	
	13	12-13	<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"/>	
	12	11-12	<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"/>	
	11	10-11	<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"/>	
	10	9-10	<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"/>	
	9	8-9	<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"/>	
	8	7-8	<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"/>	
	7	6-7	<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"/>	
	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) <input type="checkbox"/> Above lowest landing of recall		Key Floor Lockout Switch Location <input type="checkbox"/> COP <input type="checkbox"/> Lobby		Please indicate lowest landing car can serve in an event of a flood.	
Car Speed <input type="checkbox"/> fpm <input type="checkbox"/> m/s						<input type="checkbox"/> Park with Doors Open. <input type="checkbox"/> Doors stay open without demand.		<input type="checkbox"/> At or below lowest landing of recall <input type="checkbox"/> None <input type="checkbox"/> At or below designated level		Card Reader Override Switch Location <input type="checkbox"/> COP <input type="checkbox"/> Lobby <input type="checkbox"/> None		Please indicate main EMT return floor.	
Total Car Travel: <input type="checkbox"/> ft <input type="checkbox"/> m						Egress floor ____				<input type="checkbox"/> Independent Service Override			

* 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

Traction Data

IMPORTANT: Only AC geared machine with DC brake supported.

Machine Existing New
 Ring & Worm Helical

Roping: 1:1 2:1

Brand: _____

Machine Location: Overhead Basement
(Not supported if Machine is >100ft from controller)

DC Brake Existing New

Picking: _____ Holding: _____

Coil Resistance: _____

Contact on Brake: N/O N/C

AC Motor

Brand: _____

HP: _____ Voltage: _____

FLA: _____ # Poles: _____

Sync RPM: _____ FL RPM: _____

Frequency: _____

Variable Voltage Variable Frequency Drive

Magnetek HPV-900-S2
 KEB F5

Digital Velocity Encoder

Encoder: By MCE By Customer

Cable: By MCE

Cable Length: 25' 50' 75' 100'
(Required)

By Customer

Traction Features

Auxiliary Battery Power Supply
(MCE TAPS) (Provides backup power for your AC controller, with sizing up to 30HP applications)

Suspension-Means Monitoring (req'd for A17.1-2010 and later)

Steel wire ropes \geq 8mm (Standard)

Steel wire ropes < 8mm*

Suspension means other than steel wire ropes *

* For non-standard suspension means, the customer must provide the Broken Suspension Member (2.20.8.2) or Suspension Member Residual Strength (2.20.8.3) monitoring means, including a normally closed contact.

Emergency Brake (Sheave brake not supported)

ASME A17.1-2000/CSA B44-00 or later requires the addition of an emergency brake on all new traction elevators, per 2.19. Also note that some alterations may trigger the requirement to add an emergency brake as well, depending on the Code edition (e.g., change in type of service, operation or motion control; increase in rated load or speed; changing the location of or replacing the driving machine; or replacing the motion controller).

Hollister Whitney Rope Gripper (or equivalent)
(Standard 120VAC power supply)

Operating Features

Earthquake Service

Seismic Switch
 By MCE By Customer

Counterweight Derailment Device
 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 (2-position switch)
 With Up/Down Buttons

Hoistway Access (2-position switch on COP required)
 Top Bottom

Load Weigher

EMCO Rope Tension Load Weigher (Simplex/Car A)
 Number of Ropes 4 5 6 7 8
 Roping Diameter: 10mm 1/2" 5/8"
 9/16" 5/8"

EMCO Rope Tension Load Weigher (Car B)
 Number of Ropes 4 5 6 7 8
 Roping Diameter: 10mm 1/2" 5/8"
 9/16" 5/8"

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. Reduced stroke buffers NOT supported.

Landing System

Distance Feedback

LS-EDGE Tape Length Required (ft): _____
 Tape Type: Steel (Std.) Stainless Steel

LS-RAIL (Not currently available) (Not recommended on systems with slide guides due to wheel slip and contaminant issues)

EECO Limit Switch

Note: Except for final limits, mechanical limits are not required with LS-EDGE.

Element Traveling Cable (see page 5 for details)

Cable Length Required (ft): _____ (Hang Length Max. 200 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
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 <input type="checkbox"/> SmarTraq Upgrade Kit
	TH	<input type="checkbox"/> IPC Universal Interface <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"/> SmarTraq Upgrade Kit <input type="checkbox"/> IPC Universal Interface
	Old-Style MAC	<input type="checkbox"/> SmarTraq Upgrade Kit
Otis	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
	AT400*	<input type="checkbox"/> Built-In
	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"/> SmarTraq Upgrade Kit
	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
	MS	<input type="checkbox"/> SmarTraq Upgrade Kit <input type="checkbox"/> IPC Universal Interface

*Requires customer supplied DC Power Supply.

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.

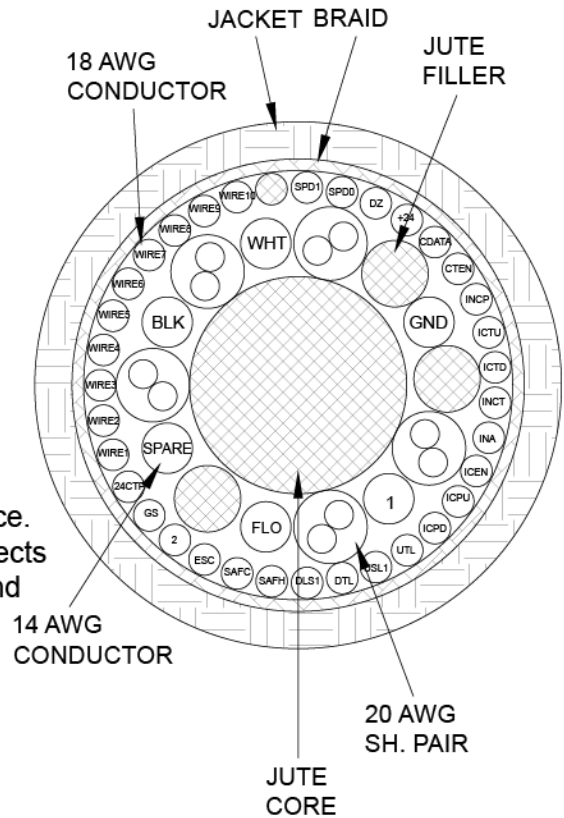
Insulation: 60 degrees C, 300 volt rated.

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.