

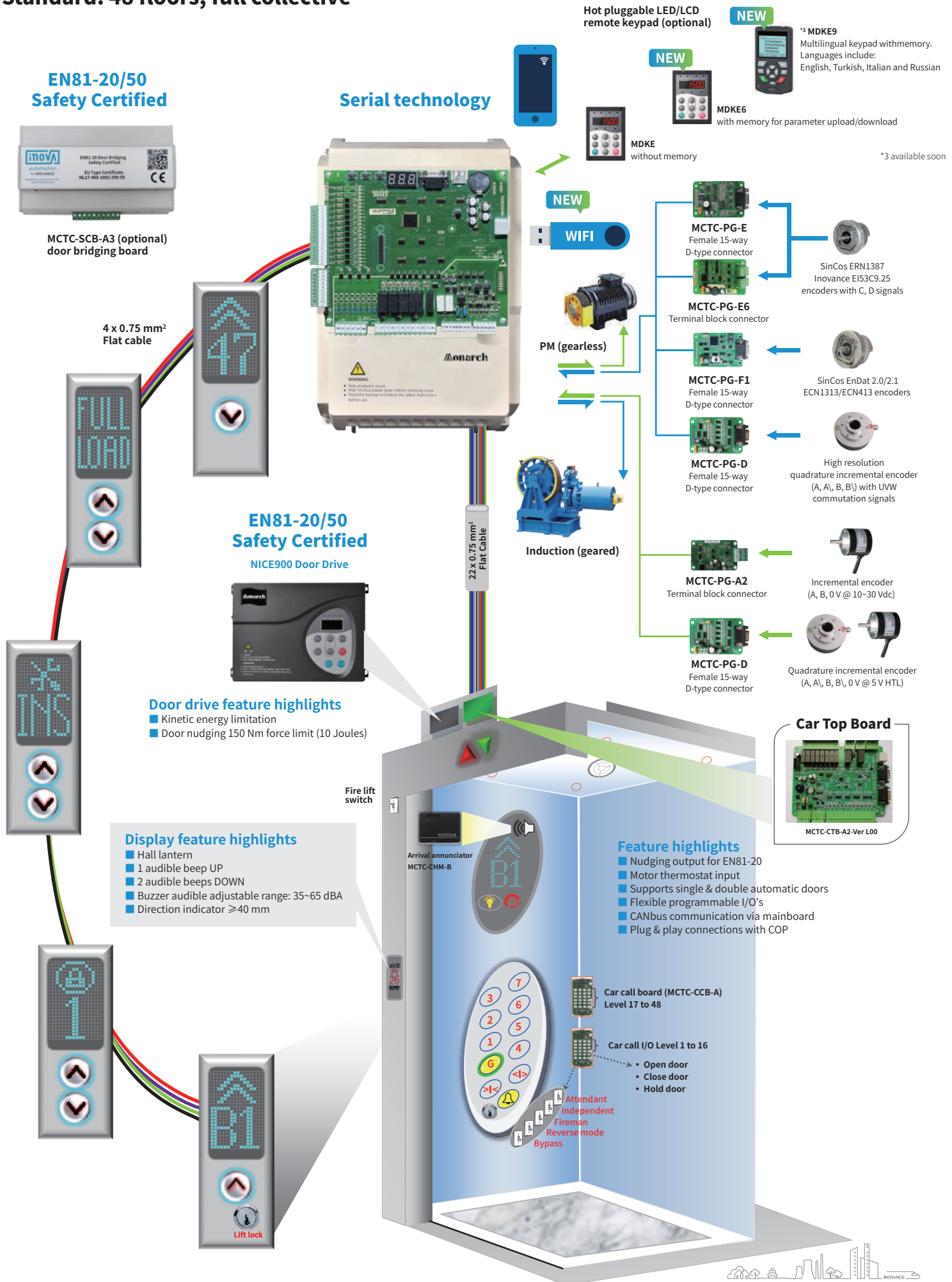
NICE3000^{new} Integrated Solution

For elevators – serial technology



General Connection Diagram

Standard: 48 floors, full collective



Integrated solution for elevators up to 4 m/sec

EN81-20 Safety Certified

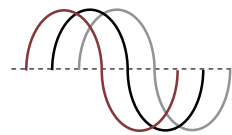
Application Features

- Supports PM gearless and asynchronous geared traction machines
- Smooth ride performance
- "Direct To Floor" technology
- Rapid commissioning step through sequence
- Anti-rollback without any external load cell (gearless machines)
- Pre-torque function (analog signal from load cell for geared machines)
- Flexible programmable I/O's
- Static auto tuning for asynchronous and synchronous machines (without brake opening)

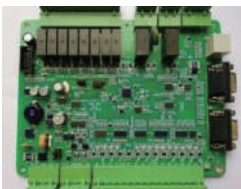
Enhanced reliability with conformal coating, protects against humidity and dust pollution

Operation in high ambient temperatures  45°C_{avg}

Wide operating voltage range 323 to 528 Vac

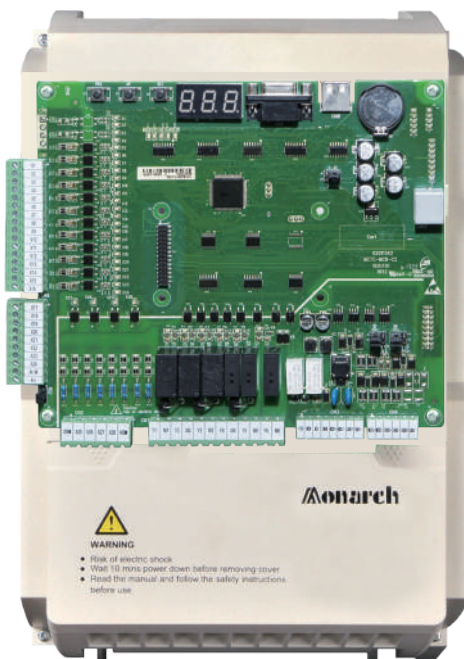


Duplex control is a standard built-in function



Car Top Board
(MCTC-CTB-A2-Ver L00)

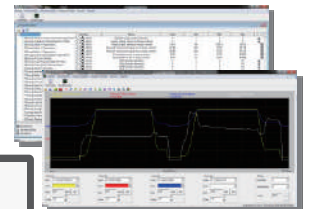
Full serial connection



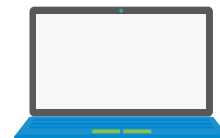
*1Apps & *2PC-Tools software offer simplified start up & backup



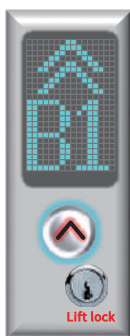
*1 available soon



*2 compatible with Windows 7/10



48 floors, full collective



Feature Highlights

- Standard: 48 floors, full collective (full serial connection)
- Duplex onboard group control (CANbus serial communication)
- Automatic door control mode
- Selectable fireman operation
- Supports 1 ph. 220 Vac UPS (quasi & sine wave) for rescue operation with intelligent light load direction search
- Comprehensive trip diagnostics



EN81-20/50
Safety Certified



MCTC-SCB-A3 (optional)
door bridging board



**Optional: hot pluggable
LCD/LED remote keypad**



MDKE
Without memory



MDKE6
With memory for parameter
upload/download



***3 MDKE9**
Multilingual keypad with memory.
Languages include:
English, Turkish, Italian and Russian

*3 available soon

NEW

WIFI

Firmware Update

Operating system

Firmware Interface

Firmware

Hardware



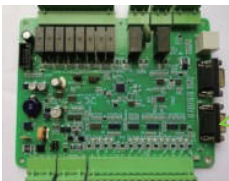
Firmware Update

Updating

76%

Cancel

Car Top Board



MCTC-CTB-A2-Ver L00
CANbus connection via main control board

Connection cable



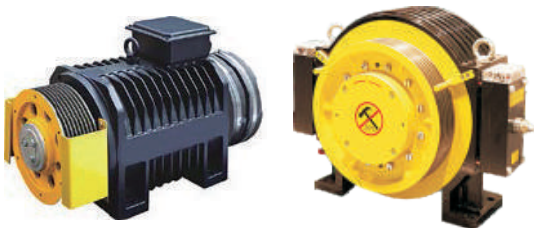
MCTC-CCL

Car call board



MCTC-CCB-A

PM Gearless



Induction Geared



Encoder Types

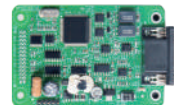


MCTC-PG-E
SinCos encoder card, 5 Vdc supply
female 15-way D-type connector

NEW



MCTC-PG-E6
SinCos encoder card, 5 Vdc supply
Terminal Block connector



MCTC-PG-F1
SinCos encoder card, 5 Vdc supply
female 15-way D-type connector



MCTC-PG-D
Quadrature incremental encoder card
(A, A', B, B') with UVW commutation signals
5 Vdc supply, female 15-way D-type connector



MCTC-PG-A2
Single-ended incremental encoder card
12 Vdc supply, Terminal Block connector



MCTC-PG-D
Quadrature incremental encoder card
5 Vdc supply, female 15-way D-type connector
(A, A', B, B', 0 V @ 5 V HTL)



SinCos ERN1387
Inovance EI53C9.25
encoders with C, D signals



SinCos EnDat 2.0/2.1
ECN1313/ECN413 encoders



High resolution
quadrature incremental encoder
(A, A', B, B') with UVW
commutation signals



Incremental encoder
(A, B, 0 V @ 10-30 Vdc)



Quadrature incremental encoder
(A, A', B, B', 0 V @ 5 V HTL)

General Specifications

380 to 480 Vac, -15% to 10% (323 to 528 Vac)

Model	Frame Size	Input Current [A]	Output Current [A]*4	Typical Motor [KW]	Dimensions [mm]			Dynamic Braking Unit	Dynamic Braking Resistor		
					Height [H]	Width [W]	Depth [D]		Min. [Ω]	Max. [Ω]	Recommended Power [W]
NICE-L-C-4002-EU-TR	C	6.5	5.1	2.2	347	223	143	Built-in	230	290	600
NICE-L-C-4003-EU-TR		10.5	9.0	3.7					135	170	1,100
NICE-L-C-4005-EU-TR		14.8	13.0	5.5					90	115	1,600
NICE-L-C-4007-EU-TR	D	20.5	18.0	7.5	347	223	174		65	85	2,500
NICE-L-C-4011-EU-TR		29.0	27.0	11.0					43	55	3,500
NICE-L-C-4015-EU-TR		36.0	33.0	15.0					35	43	4,500
NICE-L-C-4018-EU-TR	E	41.0	39.0	18.5	350	210	188		25	34	5,500
NICE-L-C-4022-EU-TR		49.5	48.0	22.0					22	24	6,500
NICE-L-C-4030-EU-TR	F	62.0	60.0	30.0	400	250	212		16	20	9,000
NICE-L-C-4037-EU-TR		77.0	75.0	37.0					13	16	11,000

*4 Carrier switching frequency 6 kHz at rated output current @ 150% overload for 60 sec & 200% for 2 sec

Please note:

- In CE countries, the recommended RFI filter must be fitted together with screened cables for EMC compliance
- NICE3000^{new} housings are IP20 rated and fan cooled

RFI Filter & AC Line Reactor Specifications

380 to 480 Vac, -15% to 10% (323 to 528 Vac)

Model	Frame Size	Input Current [A]	Power Capacity [kVA]	Optional: External Components		Optional
				RFI Filter Model (Changzhou Jianli)	RFI Filter Model (Schaffner)	AC Input Reactor Model (Inovance)
NICE-L-C-4002-EU-TR	C	6.5	4	DL-10EBK5	FN3258-7-44	MD-ACL-7-3.5-4T-4%
NICE-L-C-4003-EU-TR		10.5	5.9	DL-16EBK5	FN3258-16-44	MD-ACL-10-2.8-4T-4%
NICE-L-C-4005-EU-TR		14.8	8.9			MD-ACL-15-1.9-4T-4%
NICE-L-C-4007-EU-TR	D	20.5	11	DL-25EBK5	FN3258-30-33	MD-ACL-20-1.4-4T-4%
NICE-L-C-4011-EU-TR		29.0	17	DL-35EBK5		MD-ACL-30-0.93-4T-4%
NICE-L-C-4015-EU-TR		36.0	21	DL-50EBK5	FN3258-42-33	MD-ACL-40-0.7-4T-4%
NICE-L-C-4018-EU-TR	E	41.0	24	DL-50EBK5	FN3258-42-33	MD-ACL-50-0.56-4T-4%
NICE-L-C-4022-EU-TR		49.5	30		FN3258-55-34	
NICE-L-C-4030-EU-TR	F	62.0	40	DL-65EBK5	FN3258-75-34	MD-ACL-60-0.24-4T-2%
NICE-L-C-4037-EU-TR		77.0	57	DL-80EBK5	FN3258-100-35	MD-ACL-90-0.16-4T-2%

MRL E-Package

Contactorless **SIL3**
Safety Integrity Level



MRL Cabinet
NICE Series
EN81-20



MRL Operating Panel
Landing Floor



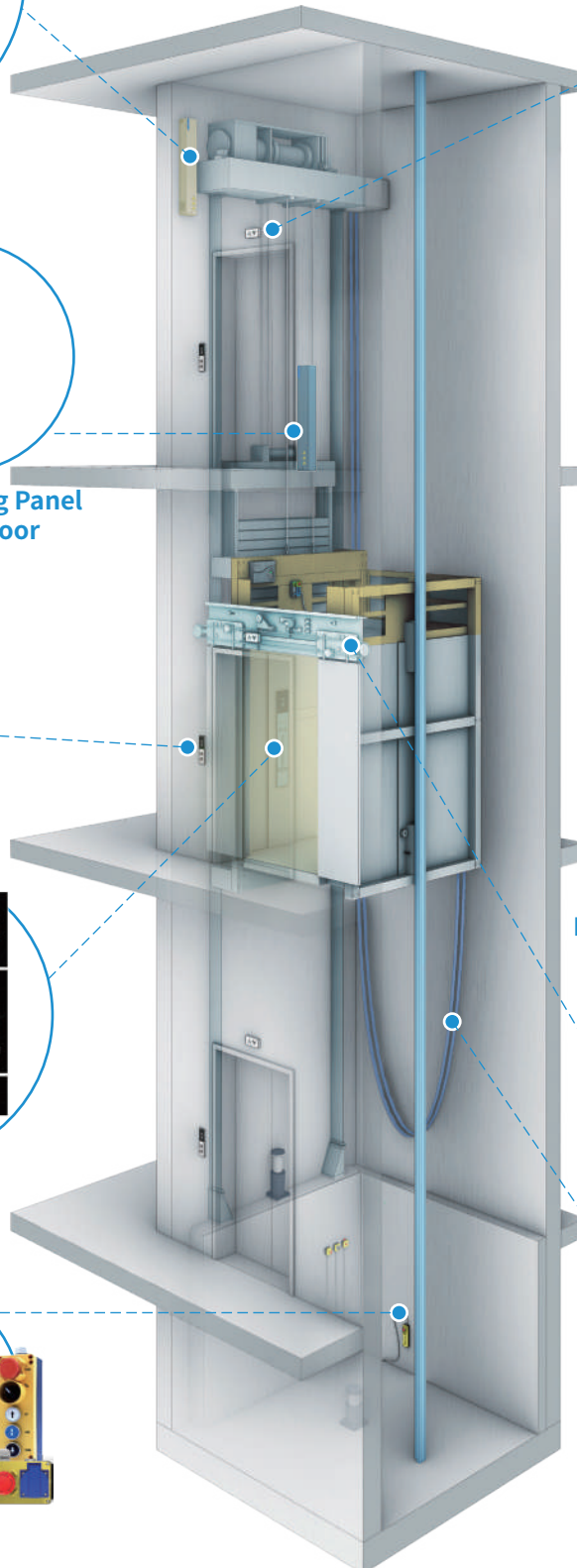
LOP



COP



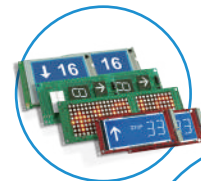
Inspection Box



Hall Lantern



Push Button



Display



Door Controller
EN81-20 Compliant
Door Nudging



Complete Door System
EN81-20/50 E120/EI120



Cable assembly
& cable harness

Inspection Box Series



Auble warning box
BJ931



Auble warning box
BJ932



Bypass switch box
BJ941



Emergency stop box
BJ372

Dimensions [L x W x D], (mm)	75 x 75 x 61	75 x 75 x 61	75 x 75 x 61	75 x 75 x 61
Enclosure rating	IP5X	IP5X	IP65	IP65
Installation	Screws	Screws	Screws	Screws
Applicable place	Car bottom	Car bottom	Shaft pit	Machine room, Car top, Shaft pit
Alarm	- 1 NO contact	N.A	- 1 NO contact - 1 NC contact	- 1 NC contact
Buzzer	- 65 dBA - flashing warning light	- 65 dBA	N.A	N.A
Electrical parameters				
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated operating voltage	24\120\240\380 Vac	24\120\240\380 Vac	24\120\240\380 Vac	24\120\240\380 Vac
Rated operating current	10 A	≤25 mA	10 A	10 A
Rated insulation voltage	50 ~ 380 Vac	50 ~ 380 Vac	600 Vac	600 Vac
Electrical lifespan	2,000 Hours	2,000 Hours		
Operating temperature	-20 ~ +55 °C (no icing)	-25 ~ +70 °C (no icing)	-20 ~ +55 °C (no icing)	-20 ~ +55 °C (no icing)
Storage temperature	-45 ~ +80 °C	-40 ~ +80 °C	-45 ~ +80 °C	-45 ~ +80 °C



Car top inspection box
BJ151



Handheld inspection box
BJ411



Handheld inspection box
BJ421



Handheld inspection box
BJ431

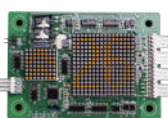
Dimensions [L x W x D], (mm)	230 x 140 x 88		270 x 75 x 85	220 x 75 x 65
Enclosure rating	IP53	IP52	IP65	IP65
Mounting	Wall mount	Screws, magnet, bracket (optional)	Screws, magnet, bracket(optional)	Screws, magnet, bracket (optional)
Applicable place	Machine room, car top, shaft pit	Machine room, car top, shaft pit	Machine room, car top, shaft pit	Machine room, car top, shaft pit
NO/NC contact details	- Emergency stop: 1 NC - CAM switch: 1 NO + 2 NC - UP ↑ button: 1 NO - UP/DOWN com button: 1 NO - DOWN ↓ button: 1 NO - alarm button: 1 NO (optional)	- Emergency stop: 1 NC - CAM switch: 1 NO + 2 NC - UP ↑ button: 1 NO - DOWN ↓ button: 1 NO	- Emergency stop: 1 NC - CAM switch: 1 NO + 2 NC - UP ↑ button: 1 NO - UP/DOWN com button: 1 NO - DOWN ↓ button: 1 NO - Alarm button: 1 NO	- Emergency stop: 1 NC - CAM switch: 1 NO + 2 NC - UP ↑ button: 1 NO - UP/DOWN com button: 1 NO - DOWN ↓ button: 1 NO
Electrical parameters				
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated operating voltage	24\120\240\380 Vac	24\120\240\380 Vac	24\120\240\380 Vac	24\120\240\380 Vac
Rated operating current	10 A	10 A	10 A	10 A
Rated insulation voltage	600 Vac	600 Vac	600 Vac	600 Vac
Electrical lifespan				
Operating temperature	-20 ~ +55 °C (no icing)	-20 ~ +55 °C (no icing)	-20 ~ +55 °C (no icing)	-20 ~ +55 °C (no icing)
Storage temperature	-45 ~ +80 °C	-45 ~ +80 °C	-45 ~ +80 °C	-45 ~ +80 °C

Please note: all enclosures are made from ABS material (Fireproof UL94 V0)

Horizontal Display Series



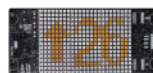
MCTC-HCB-F (red)



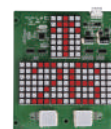
MCTC-HCB-XG-INT-HX (amber)



MCTC-HCB-G1 (red)



MCTC-HCB-G2 (amber)



MCTC-HCB-G3 (red)

Hardware configuration	: - 5 x 7 high contrast dot-matrix LED display - 1 programmable illuminated block	: - 16 x 16 high contrast dot-matrix LED display - double arrow indicator	: - 16 x 24 high contrast dot-matrix LED display	: - 7 x 15 high contrast dot-matrix LED display - 2 programmable illuminated blocks
Dimensions [L x W x D], (mm)	: 144 x 70 x 21	: 100 x 70 x 10	: 157 x 65 x 22	: 160 x 136 x 14
Function configuration				
Scrolling arrow ↑ ↓	: •	: •	: •	: •
Scrolling characters ⇐ ⇒	: •	: •	: •	: •
Hall call input/output ⬆ ⬇	: •	: •	: •	: •
Fire emergency input 🔥	: •	: •	: •	: •
Elevator lock 🚫	: •	: •	: •	: •
Hall lantern ▲ ▼	: •	: •	: •	: •
Text display	: INS, OL, FL, FIRE	: INS, OL, FL, FIRE	: INS, OL, FL, FIRE	: INS, OL, FL, FIRE
Supports horizontal / vertical display	: •	: •	: •	: •



MCTC-HCB-V2
(white characters with blue background)
MCTC-HCB-V3
(white characters with black background)



MCTC-DCB-T070
(Material code: 72010383)



MCTC-DCB-T070A
(Material code: 72012668)



MCTC-DCB-T080

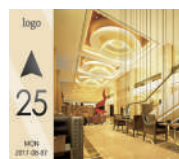
Hardware configuration	: - 6.4 inch LCD display	: - 7 inch TFT colour display - resolution: 800 x 480 pixels	: - 7 inch TFT colour display - resolution: 800 x 480 pixels - built-in speaker - internal memory 128 MB	: - 8 inch TFT colour display - resolution: 1,024 x 768 pixels - built-in arrival annunciator - internal memory 128 MB
Dimensions [L x W x D], (mm)	: 185 x 131 x 18	: 188 x 113 x 29	: 188 x 108 x 35	: 214 x 189 x 32
Function configuration				
Scrolling arrow ↑ ↓	: •	: •	: •	: •
Scrolling characters ⇐ ⇒	: •	: •	: •	: •
Hall call input/output ⬆ ⬇	: •	: •	: •	: •
Fire emergency input 🔥	: •	: •	: •	: •
Elevator lock 🚫	: •	: •	: •	: •
Hall lantern ▲ ▼	: •	: •	: •	: •
Text display	: •	: •	: •	: •
Supports horizontal / vertical display	: •	: *7 •	: *7 •	: *7 •



MCTC-HCB-T3



MCTC-DCB-T097A



MCTC-DCB-T101

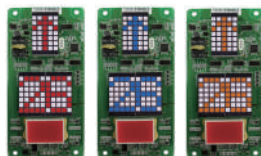


MCTC-DCB-08M/10M/12M/15M

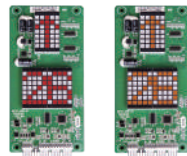
Hardware configuration	: - 9.7 inch TFT colour display - resolution: 1,024 x 768 pixels	: - 9.7 inch TFT colour display - resolution: 1,024 x 768 pixels - built-in arrival annunciator - internal memory 128 MB	: - 10.1 inch TFT colour display - resolution: 1,280 x 800 pixels - internal memory 64 MB	: - 8, 15 inch TFT colour display - resolution: 1,024 x 768 pixels - 10.4, 12.1 inch TFT colour display - resolution: 800 x 600 pixels - built-in arrival annunciator - internal memory 8 GB
Dimensions [L x W x D], (mm)	: 250 x 194 x 32	: 250 x 164 x 31	: 262 x 150 x 28	: 08M: 210 x 194 x 38 10M: 258 x 230 x 40 12M: 290 x 260 x 41 15M: 372 x 302 x 46
Function configuration				
Scrolling arrow ↑ ↓	: •	: •	: •	: •
Scrolling characters ⇐ ⇒	: •	: •	: •	: •
Hall call input/output ⬆ ⬇	: •	: •	: •	: •
Fire emergency input 🔥	: •	: •	: •	: •
Elevator lock 🚫	: •	: •	: •	: •
Hall lantern ▲ ▼	: •	: •	: •	: •
Text display	: •	: •	: •	: •
Supports horizontal / vertical display	: *5 •	: *6 •	: *6 •	: *6 •

*5 Please note: background, arrow and floor number editable through TPPS-MNK software
*6 Please note: background, arrow and floor number editable through Set-PictureSize software

Vertical Display Series



MCTC-HCB-H (red)
MCTC-HCB-H1 (blue)
MCTC-HCB-H2 (amber)



MCTC-HCB-R1 (red)
MCTC-HCB-R2 (amber)

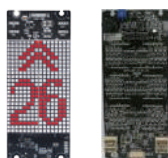


MCTC-HCB-R4 (red)

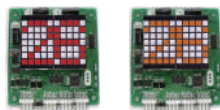


MCTC-HCB-R5 (red)

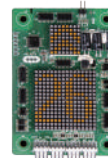
Hardware configuration	<ul style="list-style-type: none"> - 5 x 7 high contrast dot-matrix LED display - 1 programmable illuminated block 	<ul style="list-style-type: none"> - 5 x 7 high contrast dot-matrix LED display 	<ul style="list-style-type: none"> - 5 x 7 high contrast dot-matrix LED display - floor addressing via binary DIP switch 	<ul style="list-style-type: none"> - 5 x 7 high contrast dot-matrix LED display - 2 programmable illuminated blocks - floor addressing via binary DIP switch
Dimensions [L x W x D], (mm)	144 x 70 x 21	144 x 70 x 10	150 x 70 x 9	144 x 70 x 10
Function configuration				
Scrolling arrow ↑ ↓	•	•	•	•
Scrolling characters	•	•	•	•
Hall call input/output	•	•	•	•
Fire emergency input	•	•	•	•
Elevator lock	•	•	•	•
Hall lantern	•	•	•	•
Text display	INS, OL, FL, FIRE	INS, OL, FL, FIRE	INS, OL, FL, FIRE	INS, OL, FL, FIRE



MCTC-HCB-G1-INT-VX (red)
MCTC-HCB-G2-INT-VX (amber)



MCTC-HCB-Q1 (red)
MCTC-HCB-Q2 (amber)



MCTC-HCB-XG-INT-VX (amber)



MCTC-HCB-D2
(white characters with blue background)

Hardware configuration	<ul style="list-style-type: none"> - 16 x 24 high contrast dot-matrix LED display - buzzer audible adjustable range: 35-65 dBA - 1 audible beep for UP - 2 audible beeps for DOWN - direction indicator ≥ 40 mm - character height 52 mm 	<ul style="list-style-type: none"> - 5 x 7 high contrast dot-matrix LED display 	<ul style="list-style-type: none"> - 16 x 16 high contrast dot-matrix LED display - double arrow indicator 	<ul style="list-style-type: none"> - 3.5 inch ultra-thin TFT display - energy saving: automatic reduction of backlight's brightness after idle > 1 min
Dimensions [L x W x D], (mm)	157 x 65 x 22	74 x 67 x 10	100 x 70 x 10	144 x 70 x 10
Function configuration				
Scrolling arrow ↑ ↓	•	•	•	•
Scrolling characters	•	•	•	•
Hall call input/output	•	•	•	•
Fire emergency input	•	•	•	•
Elevator lock	•	•	•	•
Hall lantern	•	•	•	•
Text display	INS, OVER LOAD, FULL LOAD, FIRE	INS, OL, FL, FIRE	INS, OL, FL, FIRE	INS, OL, FL, FIRE
Pictorial icon				Overload, inspection, fire, lock



MCTC-HCB-T1



MCTC-DCB-T070



MCTC-DCB-T070A



MCTC-HCB-T6

Hardware configuration	<ul style="list-style-type: none"> - 4.3 inch TFT display - resolution: 480 x 272 pixels 	<ul style="list-style-type: none"> - 7 inch TFT colour display - resolution: 800 x 480 pixels 	<ul style="list-style-type: none"> - 7 inch TFT colour display - resolution: 800 x 480 pixels - built-in speaker - internal memory 128 MB 	<ul style="list-style-type: none"> - 9.7 inch TFT colour display - resolution: 1,024 x 768 pixels - audio output through 3.5 mm audio jack - 1 SD card slot
Dimensions [L x W x D], (mm)	95 x 53 x 18	188 x 113 x 28	188 x 108 x 35	250 x 194 x 32
Function configuration				
Scrolling arrow ↑ ↓	•	•	•	•
Scrolling characters	•	•	•	•
Hall call input/output	•	•	•	•
Fire emergency input	•	•	•	•
Elevator lock	•	•	•	•
Hall lantern	•	•	•	•
Text display	Pictorial icon			
Supports horizontal / vertical display		*6 •	*6 •	*5 •

*5 Please note: background, arrow and floor number editable through TPPS-MNK software

*6 Please note: background, arrow and floor number editable through Set-PictureSize software

Accessories



LED remote keypad
MDKE (without memory)



LED remote keypad
MDKE6 (with memory)



LCD remote keypad
MDKE9



Extension cable for remote keypad
MDCAB (01013008)

Hardware configuration	:	<ul style="list-style-type: none"> - 5 digit high brightness LED display - hot pluggable - without memory 	<ul style="list-style-type: none"> - 5 digit high brightness LED display - hot pluggable - with memory for parameter upload/download 	<ul style="list-style-type: none"> - monochrome LCD display - hot pluggable - with memory for parameter upload/download 	<ul style="list-style-type: none"> - RJ45 (male to male) straight cable
Dimensions [L x W x D], (mm)	:	116 x 76 x 15	116 x 76 x 27	123 x 72 x 26.4	Length: 3 metres
Function configuration	:	Allows rapid commissioning and maintenance via step through sequence (e.g. speed, current, DC-bus voltage, etc.)	Allows rapid commissioning and maintenance via a step through sequence (e.g. speed, current, DC-bus voltage, etc.)	Multilingual keypad with memory Languages include: English, Turkish, Italian & Russian	Allows user to connect LED/LCD hot pluggable remote keypad via NICE3000 ^{new} main board



SinCos encoder card
MCTC-PG-E



SinCos encoder card
MCTC-PG-E6



SinCos encoder card
MCTC-PG-F1



SinCos encoder card
MCTC-PG-D

Hardware configuration	:	<ul style="list-style-type: none"> - 5 Vdc supply - female 15-way D-type connector 	<ul style="list-style-type: none"> - 5 Vdc supply - terminal block connector 	<ul style="list-style-type: none"> - 5 Vdc supply - female 15-way D-type connector 	<ul style="list-style-type: none"> - 5 Vdc supply - female 15-way D-type connector
Dimensions [L x W x D], (mm)	:	83 x 55 x 15	83 x 55 x 15	83 x 55 x 15	83 x 55 x 15
Function configuration	:	SinCos ERN1387 Inovance EI53C9.25 encoders with C, D signals	SinCos ERN1387 Inovance EI53C9.25 encoders with C, D signals	SinCos EnDat 2.0/2.1 ECN1313/ECN413 encoders	<ul style="list-style-type: none"> - high resolution quadrature incremental encoder (A, A_B, B, B_B) with UVW commutation signals



Incremental encoder card
MCTC-PG-A2



Incremental encoder card
MCTC-PG-D



Inovance SinCos encoder
EI53C9.25-2048-SA5N2T



Inovance SinCos shield cable
EP-L-P01-7.5

Hardware configuration	:	<ul style="list-style-type: none"> - 15 Vdc supply - terminal block connector 	<ul style="list-style-type: none"> - 5 Vdc supply - female 15-way D-type connector 	<ul style="list-style-type: none"> - rotating speed $\leq 2,000$ rpm - starting torque 1×10^{-2} Nm - axial load 10 N - radial load 10 N 	<ul style="list-style-type: none"> - 2 x 7 pin 2.54 mm straight header strip female connector (encoder) - female 15-way D-type connector
Dimensions [L x W x D], (mm)	:	83 x 55 x 15	83 x 55 x 15	53 x 63 (length: 0.3 metres)	Length: 7.5 metres
Function configuration	:	Single-ended incremental encoder (A, B, Z @ 10~30 Vdc)	Quadrature incremental encoder (A, A _B , B, B _B , 0V @ 5 V HTL)	<ul style="list-style-type: none"> - supply voltage 5 Vdc ($\pm 5\%$) - Z signal amplitude ≥ 200 mV - DC offset voltage V_d: $2.6 \text{ V} \pm 0.1 \text{ V}$ - differential signal V_{pp} $1 \text{ V} \pm 0.1 \text{ V}$ - no load current ≤ 100 mA - frequency response ≤ 50 kHz - resolution 2,048 PPR 	Allows user to connect Inovance SinCos encoder via MCTC-PG-E



MCTC-Wifi dongle
(01270161)



Incremental encoder (A, B)
EI100H30-1024-BR30Y1



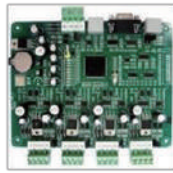
U-Type photoelectric switch
SGD31-GG-TZ2B2



Magnetic sensor
MCTC-LDB-A (1306003)

Hardware configuration	:	<ul style="list-style-type: none"> - 5 V USB 	<ul style="list-style-type: none"> - rotating speed $\leq 5,000$ rpm - starting torque 5×10^{-2} Nm - axial load 10 N - radial load 10 N - \varnothing 100 mm 	<ul style="list-style-type: none"> - reverse polarity protection - detecting distance 31 m - NPN/PNP output 	<ul style="list-style-type: none"> - detecting distance 15~30 mm
Dimensions [L x W x D], (mm)	:	60 x 18 x 10	173 x 47 (length: 7.5 metres)	72 x 52 x 20 (length: 2 metres)	\varnothing 24 x 87 mm (length: 1 metre)
Function configuration	:	Allows rapid commissioning and maintenance via step through sequence smartphone Apps	<ul style="list-style-type: none"> - supply voltage 10~30 Vdc - signal $V_{oh} \geq 85\% V_{cc}$, $V_{ol} \leq 0.5 \text{ V}$ - push-pull current $\leq 80 \text{ mA/ch}$ - frequency response ≤ 200 kHz - resolution 50~8,192 PPR 	<ul style="list-style-type: none"> - supply voltage 12~30 Vdc - frequency response ≤ 1 kHz - current consumption ≤ 60 mA - output current ≤ 80 mA 	<ul style="list-style-type: none"> - supply voltage 20~27 Vdc - output 0~10 Vdc

Accessories



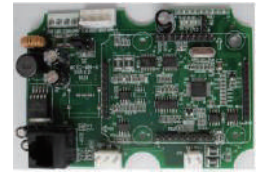
Group control board
MCTC-GCB-A



Car top board (horizontal connector)
MCTC-CTB-A



Car top board (vertical connector)
MCTC-CTB-B



Remote monitoring board
MCTC-MIB-A

Hardware configuration	:	<ul style="list-style-type: none">- 1 group of RS232- 1 group of RS485- 4 groups of CAN communication ports	<ul style="list-style-type: none">- 8 digital inputs- 9 relay outputs- 1 analogue (0~10 Vdc)- 1 RS485- 1 CANbus- 2 parallel interface expansion ports	<ul style="list-style-type: none">- 1 RS485- 1 RS232	
Dimensions [L x W x D], (mm)	:	162 x 125 x 15	162 x 125 x 15	162 x 125 x 15	104 x 72 x 15
Function configuration	:	<ul style="list-style-type: none">- minimum wait time- fuzzy logic control- password protection- group control home landing setting- peak group service- for coordination of 3~4 elevators	<ul style="list-style-type: none">- double door single action operation- double door simultaneous operation- door nudging- ventilation fan control- lighting control	Convert NICE3000 ^{new} RS232 protocol to RS485 (RTU) for remote devices	



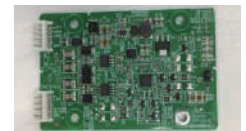
Car call board
MCTC-CCB-A



Car call board
MCTC-CCB-B



Connection cable
MCTC-CCL



Modbus decoder gateway
MCTC-KZ-AO-S

Hardware configuration	: <ul style="list-style-type: none"> - 24 digital inputs - 20 digital outputs 	<ul style="list-style-type: none"> - 39 digital inputs - 35 digital outputs 	- DB9 (Male to Male) straight cable	<ul style="list-style-type: none"> - 1 RS485 input - 1 RS485 output
Dimensions [L x W x D], (mm)	: 79 x 158 x 16	125 x 160 x 16	Length: 3 metres	104 x 72 x 18
Function configuration	: <ul style="list-style-type: none"> - 16 floor buttons - 8 functional signals e.g. OPEN/CLOSE, door hold, non-stop mode, attendant mode, reverse mode, independent mode, fireman mode, arrival chime 	<ul style="list-style-type: none"> - 31 floor buttons - 8 functional signals e.g. OPEN/CLOSE, door hold, non-stop mode, attendant mode, reverse mode, independent mode, fireman mode, arrival chime 	Allows user to connect the MCTC-CCB-A/B via MCTC-CTB-A/B	RS485 encode and decode gateway via NICE3000 ^{new} main board



Door bridging board
MCTC-SCB-A3 Ver.:B00



Expansion I/O's
MCTC-KZ-G1 Ver.:00



Non-display floor call board
MCTC-HCB-B



Arrival annunciator (synthesized voice)
MCTC-CHM-B

Hardware configuration	: <ul style="list-style-type: none"> - 4 force guided relays 	<ul style="list-style-type: none"> - 10 digital inputs - 10 digital outputs 	<ul style="list-style-type: none"> - no dot-matrix display - 4 digital inputs/outputs 	<ul style="list-style-type: none"> - bilingual voice - SD card slot
Dimensions [L x W x D], (mm)	: 114 x 72 x 28	178 x 88 x 15	70 x 84 x 20	114 x 89 x 39
Function configuration	: Facilitates bridging the door safety circuit during re-leveling of the elevator and/or door opening, including detection of unintended movement of the car (UCM)		<ul style="list-style-type: none"> - travel UP & DOWN button indicator outputs - overload indicator - double button control - hall call button input - fire emergency input - lock input 	Offers pre-set standard messages and allows bespoke passenger announcements via a voice synthesizer