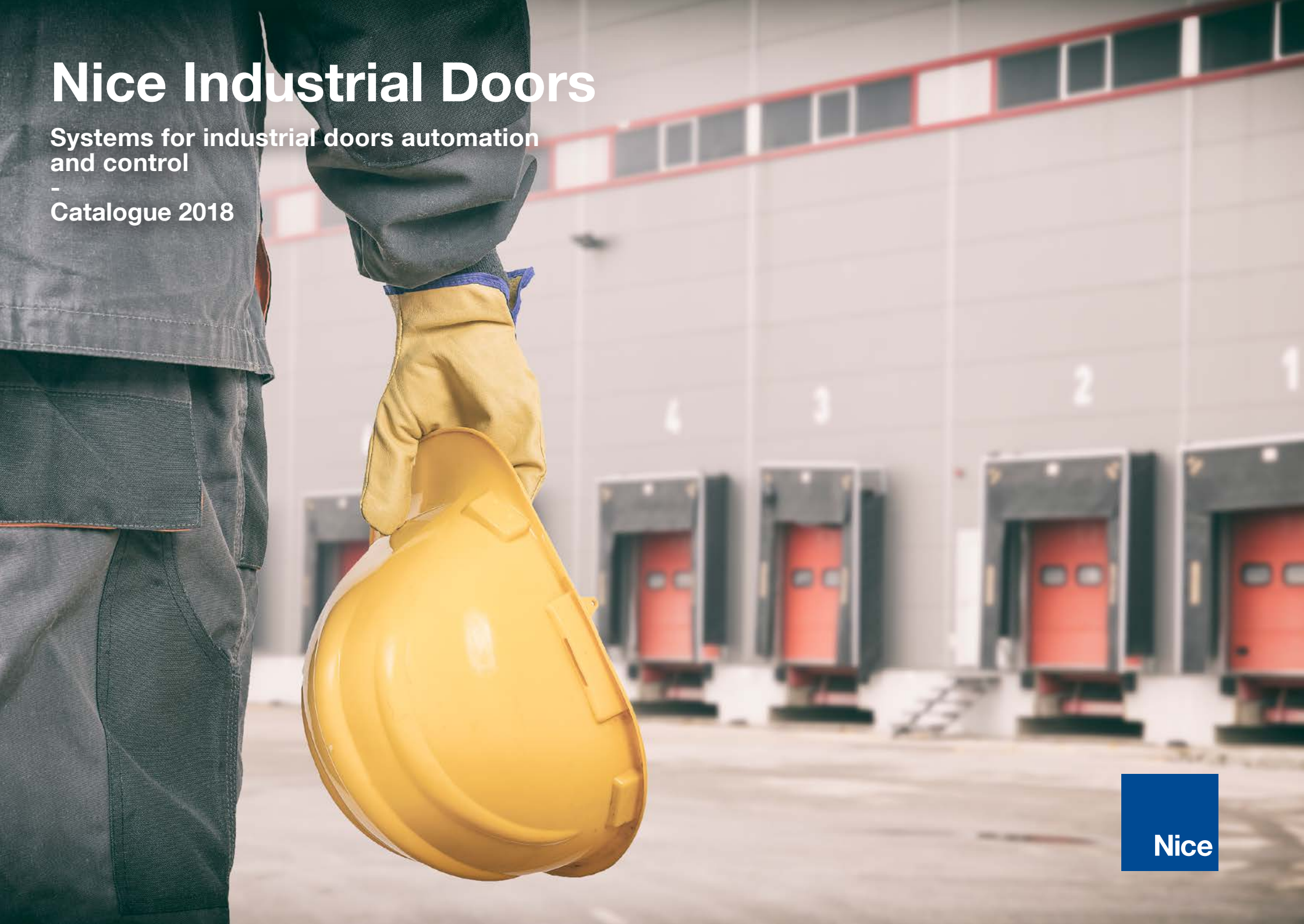
Nice Industrial Doors

Systems for industrial doors automation and control

-

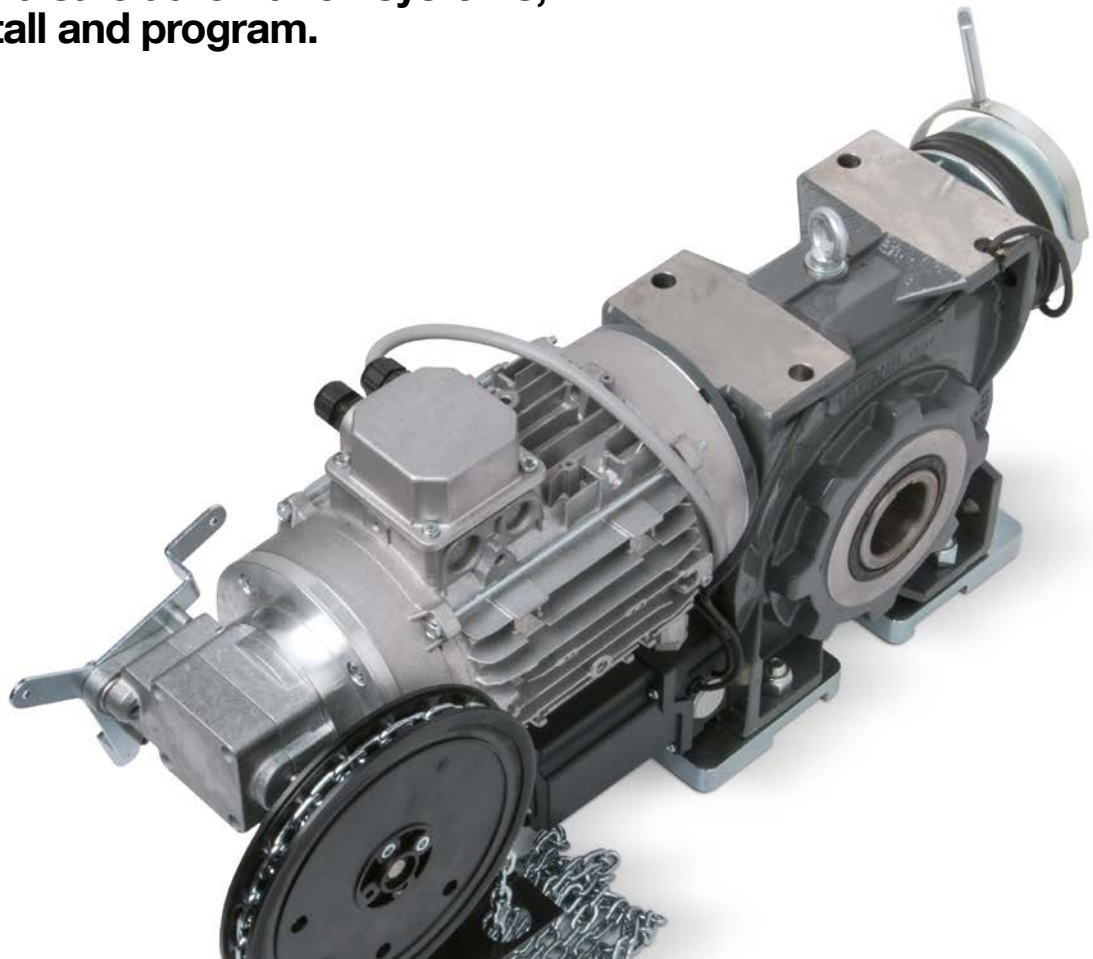
Catalogue 2018



Nice

Nice opens up your business

Powerful and safe automation systems, easy to install and program.



Nice

Nice
GRIT

The strength of the Nice solutions

Reliable and versatile control units for industrial and commercial doors. Numerous functions at your fingertips.

D-Pro Action

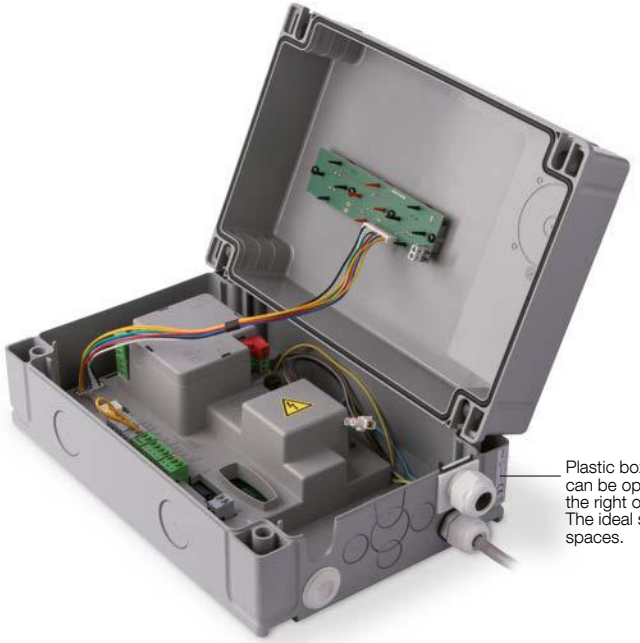
Extreme ease of installation and use.

D-Pro Automatic

The most advanced and versatile on the market.

D-Pro Action

Easy to program and to use



Plastic box, more practical, can be opened on either the right or left side. The ideal solution in confined spaces.

Practical door operation with Up - Stop - Down buttons on the box cover

Long-lasting and very resistant in wet and dusty environments

Control units for motors with mechanical limit stop or electronic limit switch, both automatic and deadman operation.

Suitable for all types of motor, single phase without integrated inverter and three-phase, with 2.2 kW maximum power.

Easy programming and 2 LEDs for diagnostics.

High performance, with possibility of adding a dedicated module for optional potential free outputs. Compatible with all types of sensitive edges, including wireless.

User-friendly: thanks to the O-View programmer with multifunction display for connection through the IBT4N interface (both optional).

Safe: protected by a plastic shell, to avoid any risk of electrical shock.

Radio receiver: dedicated slot to connect a Nice SMXI or OXI plug-in receiver.

Smart, the maintenance service warning can be programmed according to the number of manoeuvres required.

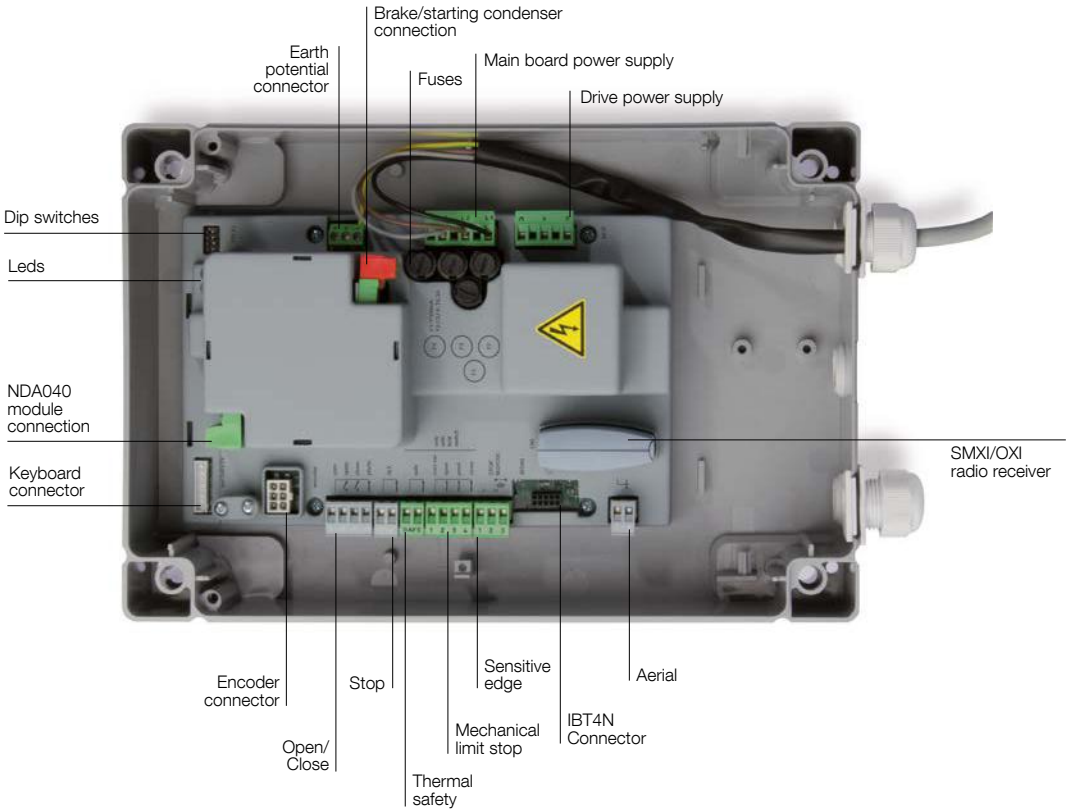
ACCESSORIES FOR D-PRO ACTION CONTROL UNITS

NDA040
For optional potential free outputs.

IBT4N
Interface module for O-View programmer connection.

OVIEW
Control unit programming and monitoring device.

IT4WIFI
Smart Wi-Fi interface to control via smartphone Nice automations compatible with the BusT4 (Opera) protocol.



D-PRO ACTION CONTROL UNITS

Code	Description	Pcs./Pack
NDCC2000	Control unit for one motor, 400 Vac three-phase, 2.2 Kw	1
NDCC2100	Control unit for one motor, 400 Vac three-phase with integrated brake rectifier, 2.2 kw	1
NDCC2200	Control unit for one motor, 230 Vac single-phase, with integrated condenser control, 2.2 kw	1

ADDITIONAL MODULES

Code	Description	Pcs./Pack
NDA040	Additional module providing the control unit with two potential free programmable outputs	1
IBT4N	Additional interface enabling the control unit to communicate with O-View through the nice BusT4 technology	1
OVIEW	Unit for control, programming and diagnostics of the control unit	1
IT4WIFI	Smart Wi-Fi interface to control via smartphone Nice automations compatible with the BusT4 (Opera) protocol.	1

TECHNICAL SPECIFICATIONS

Code	**NDCC2000/NDCC2100**	**NDCC2200**
Power supply (Vac 50/60 Hz)	400	230
Max motor power (kW)	2.2	
Power in standby (W)	< 5	
Pre limit input	programmable	
External inputs	Up, Down and Photo (programmable)	
Stop input	For sensitive edges of a normally closed and normally open type, opticals, 8.2 KΩ resistive and 8.2 KΩ pneumatic	
Extra output	2 free programmable and potential free contacts (by means of NDA040 module)	
Services Output	24 Vdc max 0.1 A	
Operating temperature (°C)	-20 ÷ +50	
Protection class (IP)	55	
Dimensions (mm)	210x125x310 h	
Weight (kg)	2.5	

D-Pro Automatic

The most advanced and versatile

Plastic box, more practical, can be opened on either the right or left side. The ideal solution in confined spaces.

Easy programming, immediate reading of system status and diagnostics by means of the large 4-digit display integrated in the cover

Practical door operation with Up - Stop - Down buttons on the box cover

Control units for motors with mechanical limit stop or electronic limit switch, both automatic and deadman operation. In compliance with all European norms and certified by TÜV NORD CERT GmbH.

Suitable for almost all industrial motors on the market, single phase with or without integrated inverter and three-phase, with 2.2 kW maximum power.

Easy programming and immediate diagnostics thanks to the 4-digit display integrated in the cover.

High performance, with possibility of adding dedicated modules for additional functions such as traffic lights and loop detectors and to connect external transmitters. Compatible with all types of sensitive edges, including wireless.

The ideal solution for interlocking doors: thanks to the dedicated function, the control unit can be used to operate a number of doors in succession, to restrict or control entry to and from areas that need to be secured against two or more doors being open simultaneously.

Safe: protected by a plastic shell, to avoid any risk of electrical shock.

Radio receiver: dedicated slot to connect a Nice SMXI or OXI plug-in receiver.

Smart, the maintenance service warning can be programmed according to the number of manoeuvres required..

Customizable: further button configurations are available on request, such as emergency stop switch.

The TÜV NORD CERT GmbH certification and compliance with EN 12453:2014 mean safety in all situations.

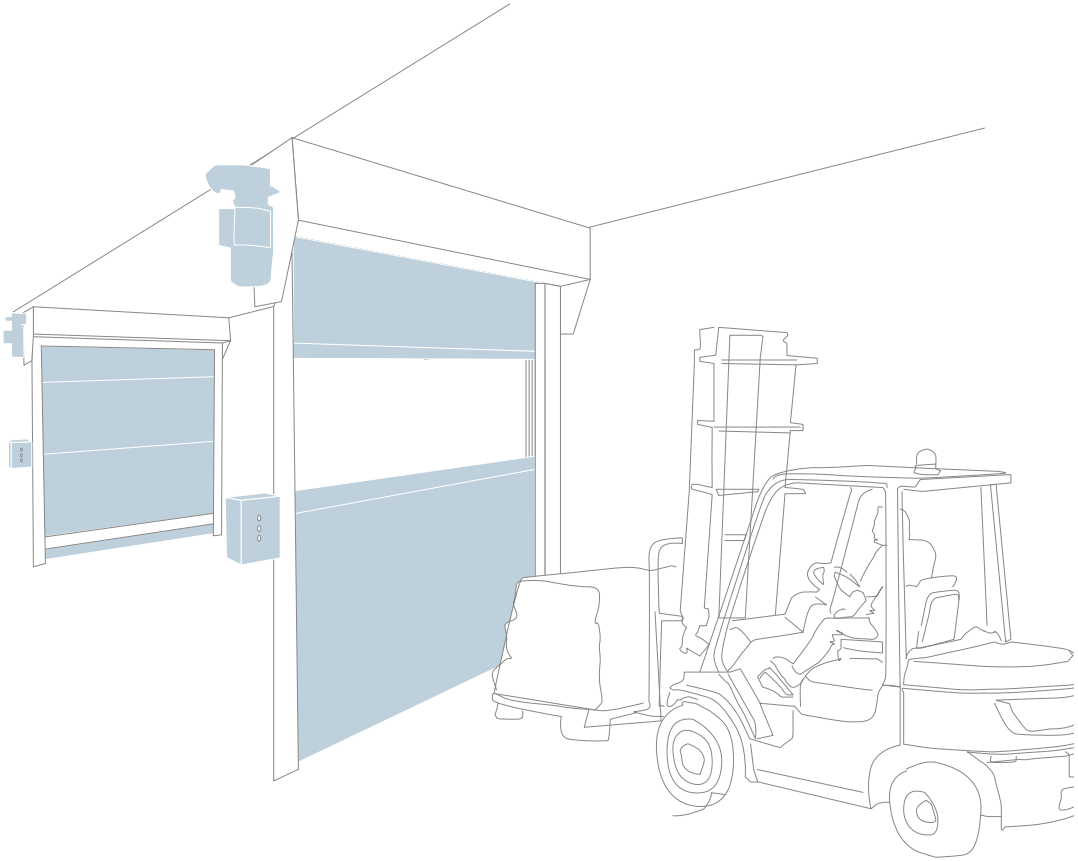
ADDITIONAL MODULES FOR D-PRO AUTOMATIC CONTROL UNITS

NDA030
For a two-way traffic light and extra programmable inputs/outputs

NDA070
For vehicle detection by induction coils

THE ADVANTAGES OF THE NICE AUTOMATION SYSTEM

The integrated interlocking function allows two or more doors to be operated in succession: the ideal solution for cold storage facilities



D-PRO AUTOMATIC CONTROL UNITS

Code	Description	Pcs./Pack
NDCC1000	Control unit for one motor, 400 Vac, three-phase, 2.2 Kw	1
NDCC1100	Control unit for one motor, 230 Vac with integrated inverter, 2.2 Kw	1
NDCC1200	Control unit for one motor, 230 Vac single-phase, 2.2 kW	1

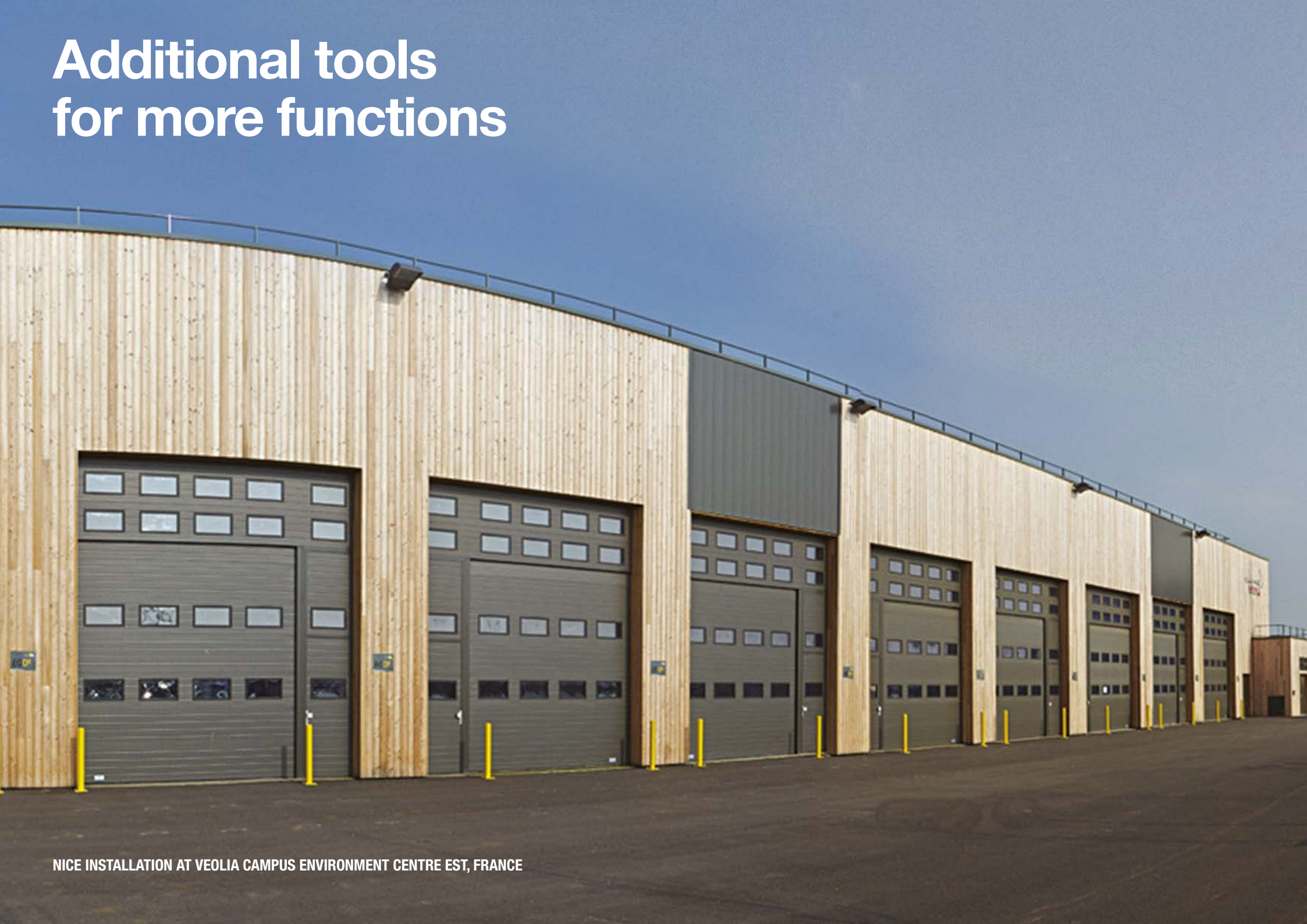
ADDITIONAL MODULES

Code	Description	Pcs./Pack
NDA030	Additional I/O expander for D-Pro Automatic control unit with two-way traffic lights function, six more general purpose inputs and four potential free outputs	1
NDA070	Additional 1 or 2 channels module for induction coils connection (12-24 Vdc) with numerous programmable functions	1

TECHNICAL SPECIFICATIONS

Code	**NDCC1000**	**NDCC1100/NDCC1200**
Power supply (Vac 50/60 Hz)	400	230
Max motor power (kw)	2.2	
Power in standby (W)	< 4	
Pre limit input	programmable	
External inputs	Up, Down, Stop, Step-by-step, all programmable	
Outputs	3 free programmable outputs	
Stop input	For sensitive edges of a normally closed and normally open type, opticals, 8.2 KΩ resistive and 8.2 KΩ pneumatic	
Services Output	24 Vdc 600 mA	
Operating temperature (°C)	-20 ÷ +50	
Protection class (IP)	55	
Dimensions (mm)	210x125x310 h	
Weight (kg)	3.5	

Additional tools for more functions

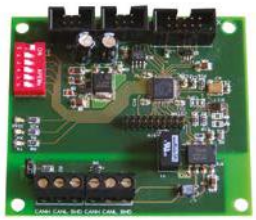


NICE INSTALLATION AT VEOLIA CAMPUS ENVIRONMENT CENTRE EST, FRANCE

D-Pro Monitoring and interface modules

For industrial doors control and management

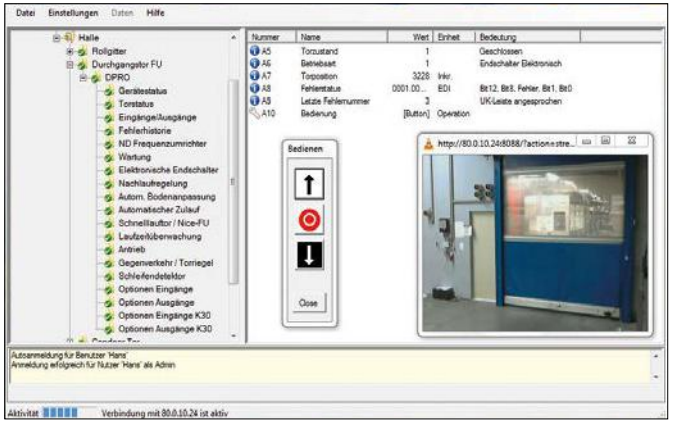
NDA004
Programming and installation module.



NDA006
Communication module.

NDA008
Repeater module with integrated router.

NICE INDUSTRIAL CONFIGURATION TOOL



Software for system configuration by PC.

Modules for the continuous remote monitoring, control and management of industrial doors, including via internet, simply and quickly.

Nice Industrial Configuration Tools
Innovative system to simplify installation, control and monitoring of industrial automation systems. Configuration software tools and the App for the D-Pro Automatic control unit for the **complete management of complex industrial doors systems by PC, smartphone or tablet.**

By adding the NDA006 communication module to each D-Pro Automatic control unit, all the working parameters of the system can be transferred and reported to a NDA008 central control unit using a two-wires CAN field bus. The interface allows connection to PCs or servers via intranet or internet connection and also access to D-Pro Automatic parameters, including remotely, to modify them or read the error code history and life cycle.

The ideal solution for large installations, such as logistic centres.
The NDA008 module with integrated router, LAN and USB connections, allows you to access the system remotely, checking it in real time thanks to the possibility of connecting a web cam. Via the management software, the information is accessible directly from a PC connected to an external server.

Better customer support, thanks to more information available.
Collected data may be stored in a central SQL database for further analysis and reporting and can be used for maintenance planning.

Firmware upgrade and bluetooth connection
The NDA004 module for bluetooth connection between D-Pro Automatic and portable devices, smartphones or tablets.
The module can be used to program the limit positions and store the D-Pro Automatic control unit parameters by means of the new application. The NDA004 allows easy upgrade of the firmware version and transfer of the stored settings from one D-Pro Automatic to another, for quick programming of a group of control units.

App Nice Industrial

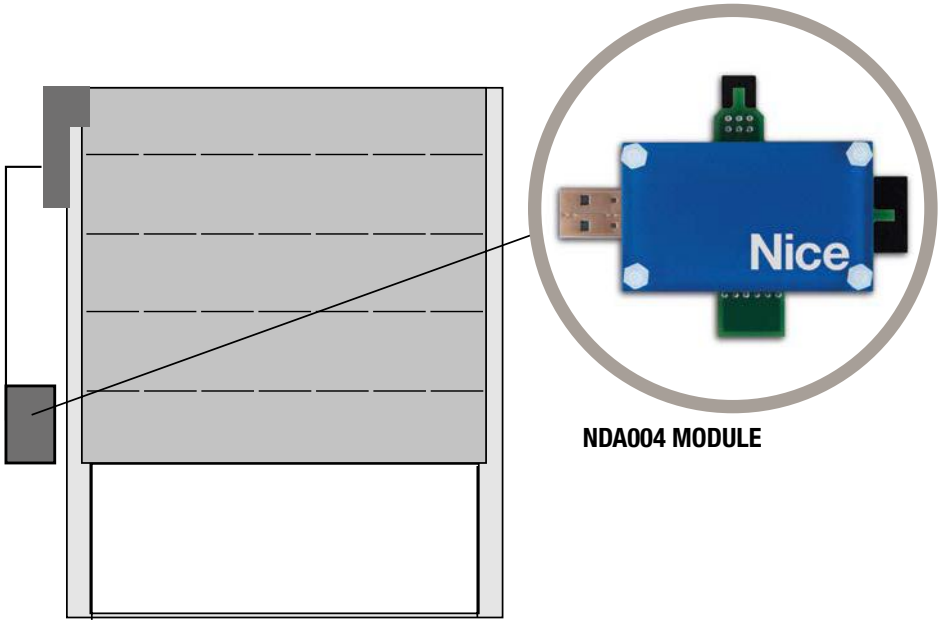
For control unit programming by android smartphone or tablet through Bluetooth connection.

Codice	Descrizione	PZ./CONF.
NDA004	Additional module for programming the control unit with the app Nice Industrial through the Bluetooth connection and for quick firmware upgrades or parameters storage	1
NDA006	Additional module for Internet and Intranet communication between D-Pro Automatic control units. To be used in combination with the repeater module NDA008 in order to create a network of remotely controllable ports	1
NDA008	Repeater module with graphic display, in plastic box, to control up to 30 communication modules	1

Take advantage of the Nice automation system

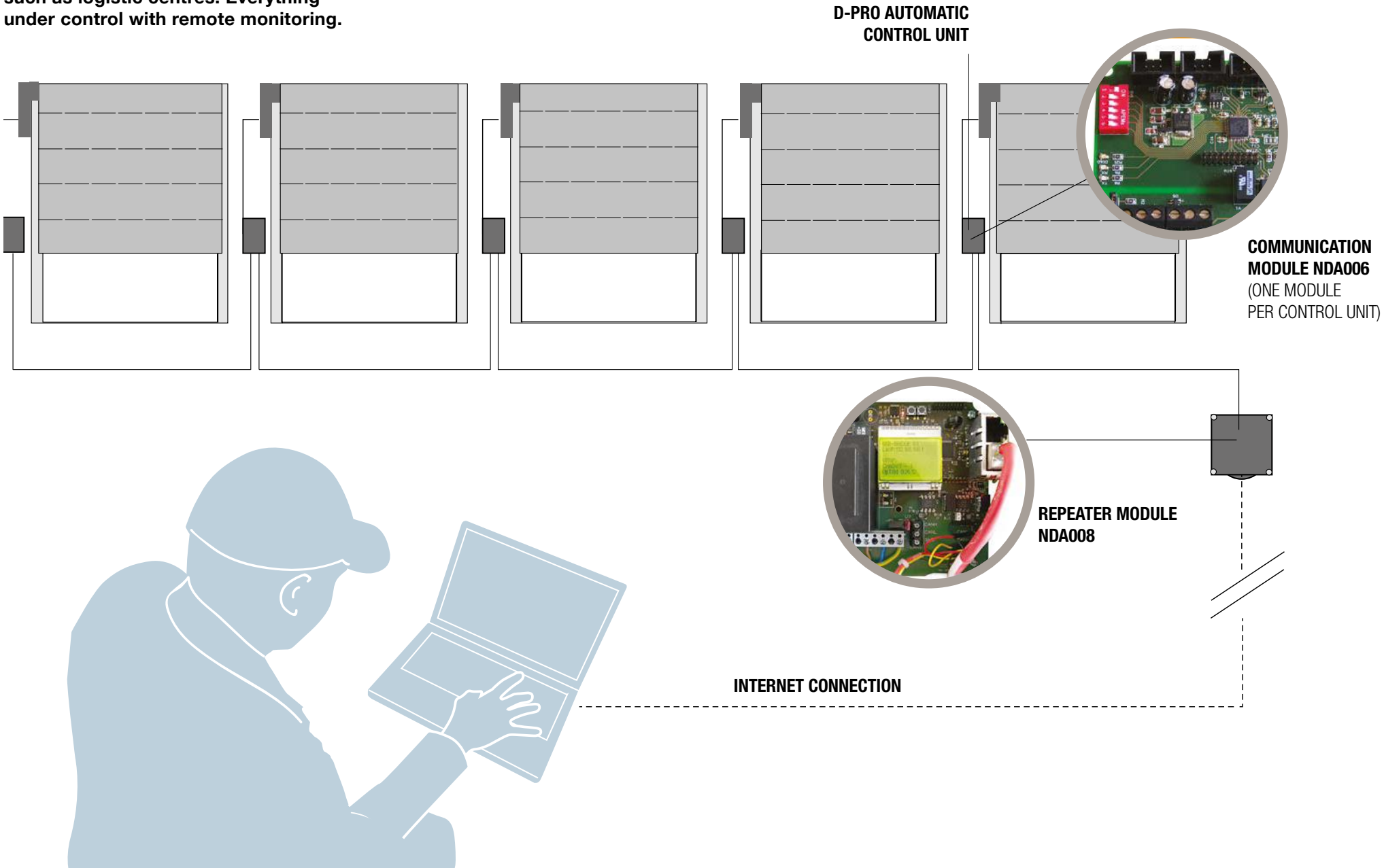
More services at your fingertips

The solution for the control of industrial doors, always at your fingertips.



BLUETOOTH CONNECTION

The ideal solution for large installations, such as logistic centres. Everything under control with remote monitoring.



Nice, made-to-measure solutions

Versatile automation systems, easy to install and program.

Take advantage of the Nice gearmotors for industrial automation

- **Cutting-edge gearmotors with advanced technology**
- **Gearmotors for more reliable long-lasting operation**
- **High quality of detail**
- **Convenient and practical solutions**
- **Meets safety requirements**

- **Performance characteristics compliant with european directives and leading internationally recognized standards, including:**

  Directive 2004/108/EC: Electromagnetic Compatibility

  Directive 2006/42/EC: Machinery Directive

  EN 60335-1:2013, EN60335-2-103:2016-05 Safety of electrical products

  TÜV NORD CERT GmbH

SWN/SD/SDN/SDNI

For sectional doors

RDFN/RDFNI

For rolling shutters

HDFN/HDFNI

For high speed doors

How to choose the ideal motor for sectional doors

Hand crank emergency operation

Power supply
3 x 400 Vac

Encoder limit switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SDN 70.24 EL15 KU	SDN 70 Nm 24 rpm Ø25.4 mm	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2000**	**NDCC1000**
SD 100.24 EL15 KU	SD 100 Nm 24 rpm Ø25.4 mm	**CA0154A00**	**CA0155A00**	**CA0156A00**		
SD 120.20 EL15 KU	SD 120 Nm 20 rpm Ø25.4 mm					
SD 140.20 EL15 KU	SD 140 Nm 20 rpm Ø25.4 mm					
	SD 140 Nm 20 rpm Ø31.75 mm					

Mechanical limt switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SDN 70.24 ME15 KU	SDN 70 Nm 24 rpm Ø25.4 mm	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2000**	**NDCC1000**
SD 100.24 ME15 KU	SD 100 Nm 24 rpm Ø25.4 mm	**CA0157A00**	**CA0158A00**	**CA0159A00**		
SD 120.20 ME15 KU	SD 120 Nm 20 rpm Ø25.4 mm					
SD 140.20 ME15 KU	SD 140 Nm 20 rpm Ø25.4 mm					
	SD 140 Nm 20 rpm Ø31.75 mm					

Power supply
1 x 230 Vac

Encoder limit switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SWN 70.20 EL15 KU	SWN 70 Nm 20 rpm Ø25.4 mm	**CA0154A00**	**CA0155A00**	**CA0156A00**	**NDCC2200**	**NDCC1200**

Mechanical limt switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SWN 70.20 ME15 KU	SWN 70 Nm 20 rpm Ø25.4 mm	**CA0157A00**	**CA0158A00**	**CA0159A00**	**NDCC2200**	**NDCC1200**

Hand chain emergency operation

Power supply
3 x 400 Vac

Encoder limit switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SDN 70.24 EL15 KE	SDN 70 Nm 24 rpm Ø25.4 mm	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2000**	**NDCC1000**
SD 100.24 EL15 KE	SD 100 Nm 24 rpm Ø25.4 mm	**CA0154A00**	**CA0155A00**	**CA0156A00**		
SD 120.20 EL15 KE	SD 120 Nm 20 rpm Ø25.4 mm					
SD 140.20 EL15 KE	SD 140 Nm 20 rpm Ø25.4 mm					
	SD 140 Nm 20 rpm Ø31.75 mm					

Mechanical limt switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SDN 70.24 ME15 KE	SDN 70 Nm 24 rpm Ø25.4 mm	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2000**	**NDCC1000**
SD 100.24 ME15 KE	SD 100 Nm 24 rpm Ø25.4 mm	**CA0157A00**	**CA0158A00**	**CA0159A00**		
SD 120.20 ME15 KE	SD 120 Nm 20 rpm Ø25.4 mm					
SD 140.20 ME15 KE	SD 140 Nm 20 rpm Ø25.4 mm					
	SD 140 Nm 20 rpm Ø31.75 mm					

Power supply
1 x 230 Vac

Encoder limit switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SWN 70.20 EL15 KE	SWN 70 Nm 20 rpm Ø25.4 mm	**CA0154A00**	**CA0155A00**	**CA0156A00**	**NDCC2200**	**NDCC1200**

Mechanical limt switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SWN 70.20 ME15 KE	SWN 70 Nm 20 rpm Ø25.4 mm	**CA0157A00**	**CA0158A00**	**CA0159A00**	**NDCC2200**	**NDCC1200**

How to choose the ideal motor for sectional doors

Emergency release

Power supply
3 x 400 Vac

Encoder limit switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SDN 70.24 EL15 E	SDN 70 Nm 24 rpm Ø25.4 mm	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2000**	**NDCC1000**
SD 100.24 EL15 E	SD 100 Nm 24 rpm Ø25.4 mm	**CA0154A00**	**CA0155A00**	**CA0156A00**		
SD 120.20 EL15 E	SD 120 Nm 20 rpm Ø25.4 mm					
SD 140.20 EL15 E	SD 140 Nm 20 rpm Ø25.4 mm					
	SD 140 Nm 20 rpm Ø31.75 mm					

Mechanical limt switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SD 70.24 ME15 E	SDN 70 Nm 24 rpm Ø25.4 mm	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2000**	**NDCC1000**
SD 100.24 ME15 E	SD 100 Nm 24 rpm Ø25.4 mm	**CA0157A00**	**CA0158A00**	**CA0159A00**		
SD 120.20 ME15 E	SD 120 Nm 20 rpm Ø25.4 mm					
SD 120.20 ME15 E	SD 140 Nm 20 rpm Ø25.4 mm					
	SD 140 Nm 20 rpm Ø31.75 mm					

Power supply
1 x 230 Vac

Encoder limit switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SWN 70.20 EL15 E	SWN 70 Nm 20 rpm Ø25.4 mm	**CA0154A00**	**CA0155A00**	**CA0156A00**	**NDCC2200**	**NDCC1200**

Mechanical limt switch
15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
SWN 70.20 ME15 E	SWN 70 Nm 20 rpm Ø25.4 mm	**CA0157A00**	**CA0158A00**	**CA0159A00**	**NDCC2200**	**NDCC1200**

Nice

SWN / SD / SDN / SDNI

For sectional doors

SERIES SWN

SERIES SD

SERIES SDN

SERIES SDNI

Electromechanical gearmotor for sectional doors.
Versions for 230 VAC single-phase and 230/400 VAC three-phase, with new mechanical limit stops or electronic limit switches.

Simple installation:
The gearmotor is installed directly on the shaft of the sectional door. Connection cables equipped with connectors simplify electrical installation.

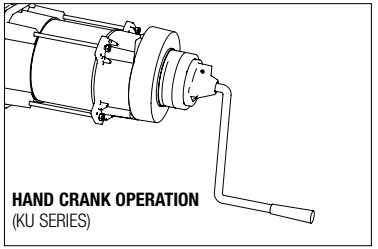
Sturdy
Gearmotor with bronze gears and permanent lubrication.

Practical
Release available in 3 versions:
- cable release;
- crank emergency;
- chain-operated emergency, the ideal solution for every type of application.

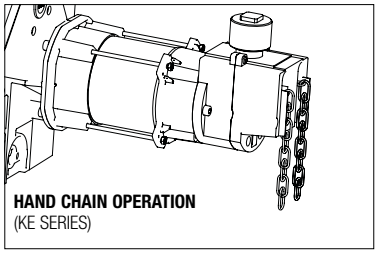
Compact and efficient:
torque up to 140 Nm, speed up to 24 rpm.

Safety:
gearmotors compliant with the most recent European standards and directives in terms of safety and technology.

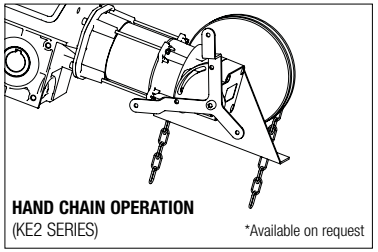
EMERGENCY OPERATIONS



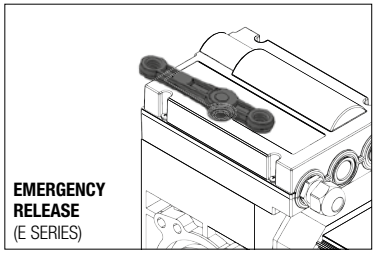
HAND CRANK OPERATION
(KU SERIES)



HAND CHAIN OPERATION
(KE SERIES)

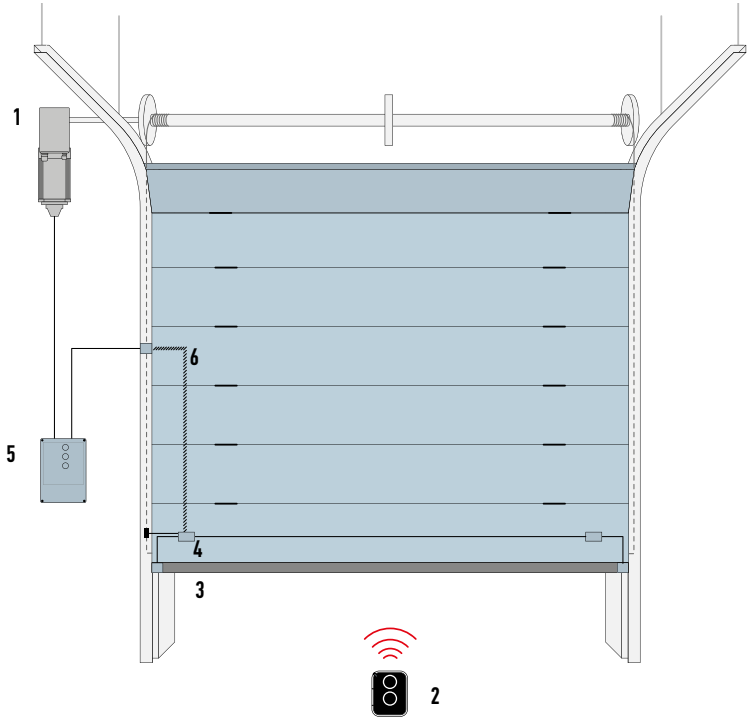


HAND CHAIN OPERATION
(KE2 SERIES)
*Available on request



EMERGENCY RELEASE
(E SERIES)

INSTALLATION DIAGRAM



SECTIONAL DOOR
1. SWN/SDN/SDNI gearmotor
2. Transmitter
3. Sensitive edge
4. Connector block
5. Control unit
6. Spiral cable

CARATTERISTICHE TECNICHE

Codice	SWN-70-20	SDN-70-20	SD-100-24	SD-120-20	SD-140-20	SDNI-120-20*
Shaft Ø (mm)	25.4				25.4/31.75	
Max. Torque (Nm)	70		100	120	140	120
Rated torque (Nm)	60		80	100	120	100
Weight lifted** (N)	2500	3000	4000	4500	5500	4500
Output (rpm)	20		24	20		20***
Motor Power (kW)	0.37				0.55	0.90
Limit switch (rpm)	15					
Working voltage (V)	1x230	3x230 / 3x400				1x230
Working frequency (Hz)	50					50****
Rated current (A)	2.3	1.8	3.1	2.6	3.45	9.5
Cycles/hour	5	6	7	5	6	6
Connection cable (n° x mm²)	4 x 1.5 mm² - 6 x 0.75 mm² - 2 x 0.75 mm²					
Operating temperature (°C)	-5 ÷ +40					
Noise dB(A)	<70					
Protection rating (IP)	54					
Weight (kg)	13.2		11.1	11	12	22

*With integrated inverter.
**For balanced doors with 1-4 compensating springs with a Ø 160 mm diameter cable winder drum, observe the permitted cable forces, danger warnings and general rules of safety.
***50 Hz Frequency.
****Working frequency adjustable thanks to inverter.

How to choose the ideal motor for rolling shutters

Hand crank emergency operation, power supply 3 x 400 Vac

Encoder limit switch

15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 EL15 KU	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2000**	**NDCC1000**
RDFN 250.15 EL15 KU	RDFN 250 Nm 15 rpm Ø30 mm with brake	**CA0177A00**	**CA0178A00**	**CA0179A00**	**NDCC2100**	
RDFN 400.15 EL15 KU	RDFN 400 Nm 15 rpm Ø40 mm with brake					
RDFN 550.15 EL15 KU	RDFN 550 Nm 15 rpm Ø40 mm with brake					
RDFN 700.9,5 EL15 KU	RDFN 700 Nm 9.5 rpm Ø40 mm with brake					
RDFN 800.12 EL15 KU	RDFN 800 Nm 12 rpm Ø55 mm with brake					
RDFN 1100.12 EL15 KU	RDFN 1100 Nm 12 rpm Ø55 mm with brake					
RDFN 1400.7 EL15 KU	RDFN 1400 Nm 9 rpm Ø55 mm with brake					

40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 EL40 KU	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2000**	**NDCC1000**
RDFN 250.15 EL40 KU	RDFN 250 Nm 15 rpm Ø30 mm with brake	**CA0177A00**	**CA0178A00**	**CA0179A00**	**NDCC2100**	
RDFN 400.15 EL40 KU	RDFN 400 Nm 15 rpm Ø40 mm with brake					
RDFN 550.15 EL40 KU	RDFN 550 Nm 15 rpm Ø40 mm with brake					
RDFN 700.9,5 EL40 KU	RDFN 700 Nm 9.5 rpm Ø40 mm with brake					
RDFN 800.12 EL40 KU	RDFN 800 Nm 12 rpm Ø55 mm with brake					
RDFN 1100.12 EL40 KU	RDFN 1100 Nm 12 rpm Ø55 mm with brake					
RDFN 1400.7 EL40 KU	RDFN 1400 Nm 9 rpm Ø55 mm with brake					

Mechanical limt switch

15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 ME15 KU	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2000**	**NDCC1000**
RDFN 250.15 ME15 KU	RDFN 250 Nm 15 rpm Ø30 mm with brake	**CA0177B00**	**CA0178B00**	**CA0179B00**	**NDCC2100**	
RDFN 400.15 ME15 KU	RDFN 400 Nm 15 rpm Ø40 mm with brake					
RDFN 550.15 ME15 KU	RDFN 550 Nm 15 rpm Ø40 mm with brake					
RDFN 700.9,5 ME15 KU	RDFN 700 Nm 9.5 rpm Ø40 mm with brake					
RDFN 800.12 ME15 KU	RDFN 800 Nm 12 rpm Ø55 mm with brake					
RDFN 1100.12 ME15 KU	RDFN 1100 Nm 12 rpm Ø55 mm with brake					
RDFN 1400.7 ME15 KU	RDFN 1400 Nm 9 rpm Ø55 mm with brake					

40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 ME40 KU	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2000**	**NDCC1000**
RDFN 250.15 ME40 KU	RDFN 250 Nm 15 rpm Ø30 mm with brake	**CA0177B00**	**CA0178B00**	**CA0179B00**	**NDCC2100**	
RDFN 400.15 ME40 KU	RDFN 400 Nm 15 rpm Ø40 mm with brake					
RDFN 550.15 ME40 KU	RDFN 550 Nm 15 rpm Ø40 mm with brake					
RDFN 700.9,5 ME40 KU	RDFN 700 Nm 9.5 rpm Ø40 mm with brake					
RDFN 800.12 ME40 KU	RDFN 800 Nm 12 rpm Ø55 mm with brake					
RDFN 1100.12 ME40 KU	RDFN 1100 Nm 12 rpm Ø55 mm with brake					
RDFN 1400.7 ME40 KU	RDFN 1400 Nm 9 rpm Ø55 mm with brake					

Hand crank emergency operation, with built-in inverter, power supply 1 x 230 Vac

Encoder limit switch
40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFNI 250.24 EL40 KU	RDFNI 250 Nm 24 rpm Ø40 mm with brake	**-**	**INCLUSO**	**-**	**NON COMPATIBILE**	**NDCC1100**
RDFNI 350.24 EL40 KU	RDFNI 350 Nm 24 rpm Ø40 mm with brake					
RDFNI 500.24 EL40 KU	RDFNI 500 Nm 24 rpm Ø40 mm with brake					

How to choose the ideal motor for rolling shutters

Hand chain emergency operation, power supply 3 x 400 Vac

Encoder limit switch

15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 EL15 KE	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2000**	**NDCC1000**
RDFN 250.15 EL15 KE	RDFN 250 Nm 15 rpm Ø30 mm with brake	**CA0177A00**	**CA0178A00**	**CA0179A00**	**NDCC2100**	
RDFN 400.15 EL15 KE	RDFN 400 Nm 15 rpm Ø40 mm with brake					
RDFN 550.15 EL15 KE	RDFN 550 Nm 15 rpm Ø40 mm with brake					
RDFN 700.9,5 EL15 KE	RDFN 700 Nm 9.5 rpm Ø40 mm with brake					
RDFN 800.12 EL15 KE	RDFN 800 Nm 12 rpm Ø55 mm with brake					
RDFN 1100.12 EL15 KE	RDFN 1100 Nm 12 rpm Ø55 mm with brake					
RDFN 1400.7 EL15 KE	RDFN 1400 Nm 9 rpm Ø55 mm with brake					

40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 EL40 KE	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2000**	**NDCC1000**
RDFN 250.15 EL40 KE	RDFN 250 Nm 15 rpm Ø30 mm with brake	**CA0177A00**	**CA0178A00**	**CA0179A00**	**NDCC2100**	
RDFN 400.15 EL40 KE	RDFN 400 Nm 15 rpm Ø40 mm with brake					
RDFN 550.15 EL40 KE	RDFN 550 Nm 15 rpm Ø40 mm with brake					
RDFN 700.9,5 EL40 KE	RDFN 700 Nm 9.5 rpm Ø40 mm with brake					
RDFN 800.12 EL40 KE	RDFN 800 Nm 12 rpm Ø55 mm with brake					
RDFN 1100.12 EL40 KE	RDFN 1100 Nm 12 rpm Ø55 mm with brake					
RDFN 1400.7 EL40 KE	RDFN 1400 Nm 9 rpm Ø55 mm with brake					

Mechanical limt switch

15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 ME15 KE	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2000**	**NDCC1000**
RDFN 250.15 ME15 KE	RDFN 250 Nm 15 rpm Ø30 mm with brake	**CA0177B00**	**CA0178B00**	**CA0179B00**	**NDCC2100**	
RDFN 400.15 ME15 KE	RDFN 400 Nm 15 rpm Ø40 mm with brake					
RDFN 550.15 ME15 KE	RDFN 550 Nm 15 rpm Ø40 mm with brake					
RDFN 700.9,5 ME15 KE	RDFN 700 Nm 9.5 rpm Ø40 mm with brake					
RDFN 800.12 ME15 KE	RDFN 800 Nm 12 rpm Ø55 mm with brake					
RDFN 1100.12 ME15 KE	RDFN 1100 Nm 12 rpm Ø55 mm with brake					
RDFN 1400.7 ME15 KE	RDFN 1400 Nm 9 rpm Ø55 mm with brake					

40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 ME40 KE	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2000**	**NDCC1000**
RDFN 250.15 ME40 KE	RDFN 250 Nm 15 rpm Ø30 mm with brake	**CA0177B00**	**CA0178B00**	**CA0179B00**	**NDCC2100**	
RDFN 400.15 ME40 KE	RDFN 400 Nm 15 rpm Ø40 mm with brake					
RDFN 550.15 ME40 KE	RDFN 550 Nm 15 rpm Ø40 mm with brake					
RDFN 700.9,5 ME40 KE	RDFN 700 Nm 9.5 rpm Ø40 mm with brake					
RDFN 800.12 ME40 KE	RDFN 800 Nm 12 rpm Ø55 mm with brake					
RDFN 1100.12 ME40 KE	RDFN 1100 Nm 12 rpm Ø55 mm with brake					
RDFN 1400.7 ME40 KE	RDFN 1400 Nm 9 rpm Ø55 mm with brake					

Hand chain emergency operation, with built-in inverter, power supply 1 x 230 Vac

Encoder limit switch
40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFNI 250.24 EL40 KE	RDFNI 250 Nm 24 rpm Ø40 mm with brake	**-**	**INCLUDED**	**-**	**NO COMPATIBLE**	**NDCC1100**
RDFNI 350.24 EL40 KE	RDFNI 350 Nm 24 rpm Ø40 mm with brake					
RDFNI 350.24 EL40 KE	RDFNI 500 Nm 24 rpm Ø40 mm with brake					

How to choose the ideal motor for rolling shutters with chain reduction system

Hand crank emergency operation

Power supply
3 x 400 Vac

Encoder limit switch
40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 EL40 KU	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2000**	**NDCC1000**
RDFN 250.24 EL40 KU	RDFN 250 Nm 24 rpm Ø 0 mm with brake	**CA0177A00**	**CA0178A00**	**CA0179A00**	**NDCC2100**	
RDFN 350.24 EL40 KU	RDFN 350 Nm 24 rpm Ø40 mm with brake					
RDFN 500.24 EL40 KU	RDFN 500 Nm 24 rpm Ø40 mm with brake					
RDFN 750.24 EL40 KU	RDFN 750 Nm 24 rpm Ø55 mm with brake					
RDFN 1000.24 EL40 KU	RDFN 1000 Nm 24 rpm Ø55 mm with brake					
RDFN 1400.24 EL40 KU	RDFN 1400 Nm 24 rpm Ø55 mm with brake					

Mechanical limt switch
40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 ME40 KU	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2000**	**NDCC1000**
RDFN 250.24 ME40 KU	RDFN 250 Nm 24 rpm Ø40 mm with brake	**CA0177B00**	**CA0178B00**	**CA0179B00**	**NDCC2100**	
RDFN 350.24 ME40 KU	RDFN 350 Nm 24 rpm Ø40 mm with brake					
RDFN 500.24 ME40 KU	RDFN 500 Nm 24 rpm Ø40 mm with brake					
RDFN 750.24 ME40 KU	RDFN 750 Nm 24 rpm Ø55 mm with brake					
RDFN 1000.24 ME40 KU	RDFN 1000 Nm 24 rpm Ø55 mm with brake					
RDFN 1400.24 ME40 KU	RDFN 1400 Nm 24 rpm Ø55 mm with brake					

Hand chain emergency operation

Power supply
3 x 400 Vac

Encoder limit switch
40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 EL40 KE	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2000**	**NDCC1000**
RDFN 250.24 EL40 KE	RDFN 250 Nm 24 rpm Ø40 mm with brake	**CA0177A00**	**CA0178A00**	**CA0179A00**	**NDCC2100**	
RDFN 350.24 EL40 KE	RDFN 350 Nm 24 rpm Ø40 mm with brake					
RDFN 500.24 EL40 KE	RDFN 500 Nm 24 rpm Ø40 mm with brake					
RDFN 750.24 EL40 KE	RDFN 750 Nm 24 rpm Ø55 mm with brake					
RDFN 1000.24 EL40 KE	RDFN 1000 Nm 24 rpm Ø55 mm with brake					
RDFN 1400.24 EL40 KE	RDFN 1400 Nm 24 rpm Ø55 mm with brake					

Mechanical limt switch
40 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
RDFN 140.20 ME40 KE	RDFN 140 Nm 20 rpm Ø30 mm	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2000**	**NDCC1000**
RDFN 250.24 ME40 KE	RDFN 250 Nm 24 rpm Ø40 mm with brake	**CA0177B00**	**CA0178B00**	**CA0179B00**	**NDCC2100**	
RDFN 350.24 ME40 KE	RDFN 350 Nm 24 rpm Ø40 mm with brake					
RDFN 500.24 ME40 KE	RDFN 500 Nm 24 rpm Ø40 mm with brake					
RDFN 750.24 ME40 KE	RDFN 750 Nm 24 rpm Ø55 mm with brake					
RDFN 1000.24 ME40 KE	RDFN 1000 Nm 24 rpm Ø55 mm with brake					
RDFN 1400.24 ME40 KE	RDFN 1400 Nm 24 rpm Ø55 mm with brake					

54
56
58
60

RDFN / RDFNI

For rolling shutters

RDFN SERIES

RDFNI SERIES

Electromechanical gearmotor for rolling shutters with integrated brake and mechanical limit stops or electronic limit switches, chain-operated emergency (KE2 series) or crank emergency (KU series) with integrated anti-fallback device.

Simple installation:
the gearmotor is installed directly on the shaft of the rolling door (Ø 30 mm, Ø 40 mm, Ø 55 mm). Connection cables equipped with connectors simplify electrical installation.

Compact and efficient:
torque up to 1,400 Nm, speed up to 24 rpm.

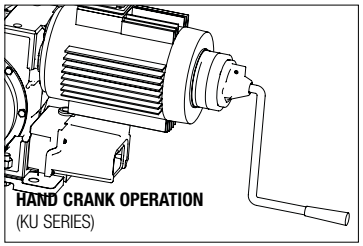
High safety thanks to the anti-fallback safety system and possibility of connecting safety devices such as optical or resistive sensitive edges (8.2 kΩ). Gearmotors compliant with the most recent European standards and directives in terms of safety and technology.

Practical
Release available in 2 versions:
- crank emergency;
- chain-operated emergency, the ideal solution for every type of application.

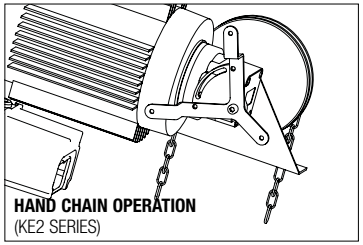
More force:
on the RDN series, torque can be increased by means of 1:2 and 1:3 chain reduction kits.

Available on request: special fastening accessories, shafts and discs for welding.

EMERGENCY OPERATIONS

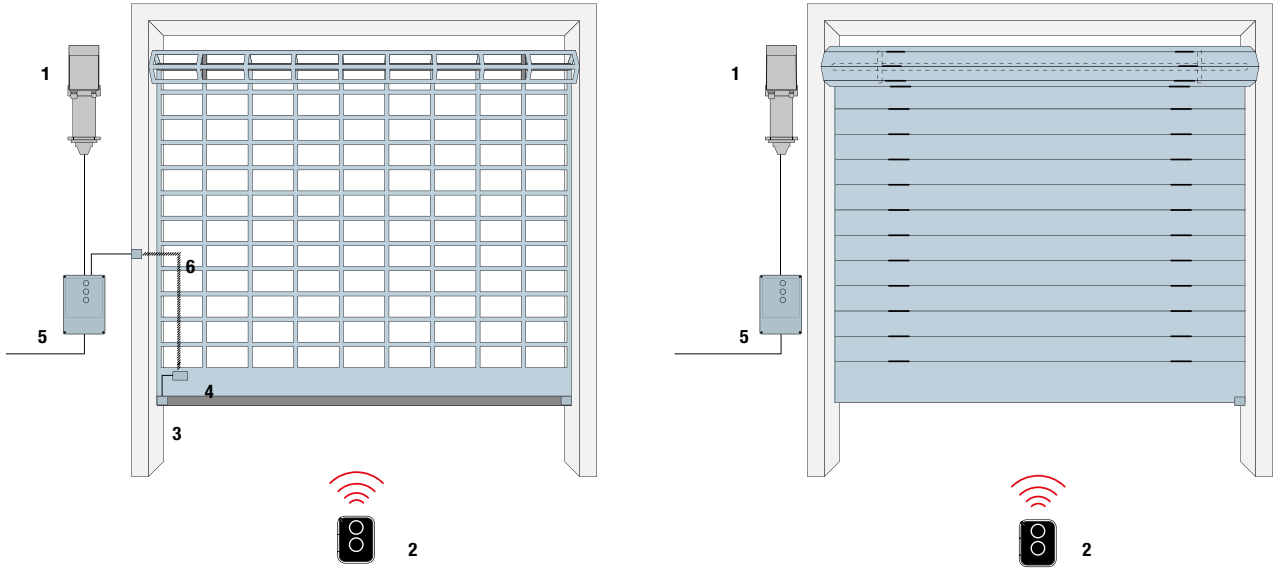


HAND CRANK OPERATION
(KU SERIES)



HAND CHAIN OPERATION
(KE2 SERIES)

INSTALLATION DIAGRAM



ROLLING SHUTTERS
1. RDFN/RDFNI gearmotor
2. Transmitter
3. Sensitive edge
4. Connector block
5. Control unit
6. Spiral cable

MAX. SHUTTER WEIGHT (kg):

STEEL TUBE ACCORDING TO 10220 (mm)

	101,6x3,6			108,0x3,6			133,0x4			159,0x4,5			177,8x5			193,7x5,4			219,1x5,9			244,5x6,3			273,0x6,3			298,5x7,1			323,9x7,1		
Door h up to	3 m	5 m	7 m	3 m	5 m	7 m	3 m	5 m	7 m	3 m	5 m	7 m	3 m	5 m	7 m	3 m	5 m	7 m	3 m	5 m	7 m	3 m	5 m	7 m	3 m	5 m	7 m	3 m	5 m	7 m	3 m	5 m	7 m
RDFN-140-20	174	147	131	171	146	130	157	139	125	143	130	119	132	124	114	122	117	110	109	108	104	92	91	90	89	89	89	82	82	82	76	76	76
RDFN-250-15	310	263	263	306	261	232	281	248	223	256	232	213	236	221	204	218	209	197	195	194	185	176	176	172	159	159	159	147	147	147	136	136	136
RDFN-400-15	497	422	378	490	418	371	449	397	357	409	372	341	378	354	327	350	335	315	312	310	297	282	282	276	255	255	255	235	235	235	217	217	217
RDFN-550-15	684	580	514	675	574	511	618	546	491	563	512	469	519	486	450	481	461	433	430	427	408	388	388	379	351	351	351	323	323	323	299	299	299
RDFN-750-9,5	932	791	701	920	783	696	843	744	669	767	698	640	708	663	613	656	629	590	586	582	557	530	530	517	478	478	478	440	440	440	408	408	408
RDFN-850-12	-	-	-	-	-	-	-	-	-	870	791	725	803	752	695	743	713	669	664	660	631	600	600	586	542	542	542	499	499	499	462	462	462
RDFN-1100-12	-	-	-	-	-	-	-	-	-	1126	1024	939	1039	973	900	962	922	866	860	854	817	777	777	758	702	702	702	645	645	645	598	598	598
RDFN-1400-9	-	-	-	-	-	-	-	-	-	1433	1303	1195	1322	1238	1145	1224	1174	1102	1094	1087	1039	989	989	965	893	893	893	821	821	821	761	761	761
RDFNI-250-24	260	239	195	256	218	194	235	207	186	214	194	178	197	185	171	183	175	164	163	162	155	148	147	144	134	133	132	123	122	122	114	113	113
RDFNI-350-24	339	287	254	334	285	253	306	270	243	279	254	233	257	241	223	238	228	214	213	212	202	193	192	188	174	173	172	160	159	159	148	148	148
RDFNI-500-24	508	431	382	502	427	380	460	406	365	418	381	349	386	362	334	357	343	322	319	317	304	290	289	282	261	260	259	240	239	239	222	222	222

The table applies to section bars with a single wall only (thickness 20 mm). The dimensions must be taken into account for winding if section bars with double wall or greater thickness or height are used.

In this case higher torque applies after 1-2 turns. A 20% friction loss is considered for the normal rolling shutters in the table.

t is generally advisable to check the door proportions when there are coverings, section bars with double wall or doors higher than normal, or in the case of particular entry situations that could require other force ratios or cause additional friction losses (e.g. doors that are wider than the height), for example.

TECHNICAL SPECIFICATIONS RDFN SERIES

Code	RDFN-140-20	RDFN-250-15	RDFN-400-15	RDFN-500-15	RDFN-750-9.5	RDFN-850-12	RDFN-1100-12	RDFN-1400-9.5	RDFN-250-24	RDFN-350-24	RDFN-500-24	RDFN-750-24	RDFN-1000-24	RDFN-1400-24
Shaft Ø (mm)	30	30	40	40	40	55	55	55	30	40		55		
Max. Torque (Nm)	140	250	400	500	750	850	1100	1400	250	350	500	750	1000	1400
Rated Torque (Nm)	120	230	360	500	700	760	1000	1300	220	300	430	680	900	1250
Output (rpm)	20	15	15	15	9.5	12	12	9.5	24					
Motor Power (kW)	0.55	0.75	1.1	1.5	1.5	2.2	3	2.2	1.1	1.5	2.2	2.2	3	4
Limit Switch Range	15/40	15/40	15/40	15/40	15/40	15/40	15/40	15/40	40					
Power Supply (V)	3x400													
Working frequency (Hz)	50													
Rated current (A)	2	2.6	3.4	4.1	3.5	4.6	8	5.1	2.9	3.5	5	7.5	8.5	10.5
Cycles/hour	4/1	17/5	14/7	14/4	-/2	13/5		-/3	7					
Connection cable (n° x mm²)	4 x 1.5 mm² - 6 x 0.75 mm² - 2 x 0.75 mm²													
Operating temperature (°C)	-20 ÷ +40													
Noise dB(A)	<70													
Protection rating (IP)	54													
Weight (kg)	13	22	28		35	50	52	65	22	29	28			

TECHNICAL SPECIFICATIONS RDFNI SERIES

Code	RDFNI-250-24	RDFNI-350-24	RDFNI-500-24
Shaft Ø (mm)	30	40	40
Max. Torque (Nm)	250	350	500
Rated Torque (Nm)	230	300	450
Output (rpm)	24	24	24
Motor Power (kW)	1,1	1,5	2,2
Limit Switch Range	40	40	40
Power Supply (V)	1x230		
Working frequency (Hz)	50		
Rated current (A)	10	11,5	15,8
Cycles/hour	7	8	7
Connection cable (n° x mm²)	4 x 1,5 mm² - 6 x 0,75 mm² - 2 x 0,75 mm²		
Operating temperature (°C)	-20 ÷ +40		
Noise dB(A)	<70		
Protection rating (IP)	54		
Weight (kg)	24	31	

How to choose the ideal motor for high speed doors

Hand crank emergency operation, power supply 3 x 400 Vac

Encoder limit switch

15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
HDFN 35.140 EL15 KU	HDFN 35 Nm 140 rpm Ø25 mm with brake	**CA0174A00**	**CA0175A00**	**CA0176A00**	**NDCC2100**	**NDCC1000**
	HDFN 35 Nm 140 rpm Ø25.4 mm with brake					
	HDFN 35 Nm 140 rpm Ø30 mm with brake					
HDFN 45.95 EL15 KU	HDFN 45 Nm 95 rpm Ø25 mm with brake					
	HDFN 45 Nm 95 rpm Ø25.4 mm with brake					
	HDFN 45 Nm 95 rpm Ø30 mm with brake					
HDFN 60.140 EL15 KU	HDFN 60 Nm 140 rpm Ø25 mm with brake					
	HDFN 60 Nm 140 rpm Ø25.4 mm with brake					
	HDFN 60 Nm 140 rpm Ø30 mm with brake					
HDFN 80.90 EL15 KU	HDFN 80 Nm 90 rpm Ø25 mm with brake					
	HDFN 80 Nm 90 rpm Ø25.4 mm with brake					
	HDFN 80 Nm 90 rpm Ø30 mm with brake					

20 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
HDFN 160.95 EL20 KU	HDFN 160 Nm 95 rpm Ø30 mm with brake	**CA0177A00**	**CA0178A00**	**CA0179A00**	**NDCC2100**	**NDCC1000**
	HDFN 160 Nm 95 rpm Ø40 mm with brake					

Mechanical limt switch

15 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
HDFN 35.140 ME15 KU	HDFN 35 Nm 140 rpm Ø25 mm with brake	**CA0174B00**	**CA0175B00**	**CA0176B00**	**NDCC2100**	**NDCC1000**
	HDFN 35 Nm 140 rpm Ø25.4 mm with brake					
	HDFN 35 Nm 140 rpm Ø30 mm with brake					
HDFN 45.95 ME15 KU	HDFN 45 Nm 95 rpm Ø25 mm with brake					
	HDFN 45 Nm 95 rpm Ø25.4 mm with brake					
	HDFN 45 Nm 95 rpm Ø30 mm with brake					
HDFN 60.140 ME15 KU	HDFN 60 Nm 140 rpm Ø25 mm with brake					
	HDFN 60 Nm 140 rpm Ø25.4 mm with brake					
	HDFN 60 Nm 140 rpm Ø30 mm with brake					
HDFN 80.90 ME15 KU	HDFN 80 Nm 90 rpm Ø25 mm with brake					
	HDFN 80 Nm 90 rpm Ø25.4 mm with brake					
	HDFN 80 Nm 90 rpm Ø30 mm with brake					

20 turns

Code	Description	COMPATIBILITY				
		5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
HDFN 160.95 ME20 KU	HDFN 160 Nm 95 rpm Ø30 mm with brake	**CA0177B00**	**CA0178B00**	**CA0179B00**	**NDCC2100**	**NDCC1000**
	HDFN 160 Nm 95 rpm Ø40 mm with brake					

How to choose the ideal motor for high speed doors

Hand crank emergency operation, power supply 1 x 230 Vac, with built-in inverter

Encoder limit switch

15 turns

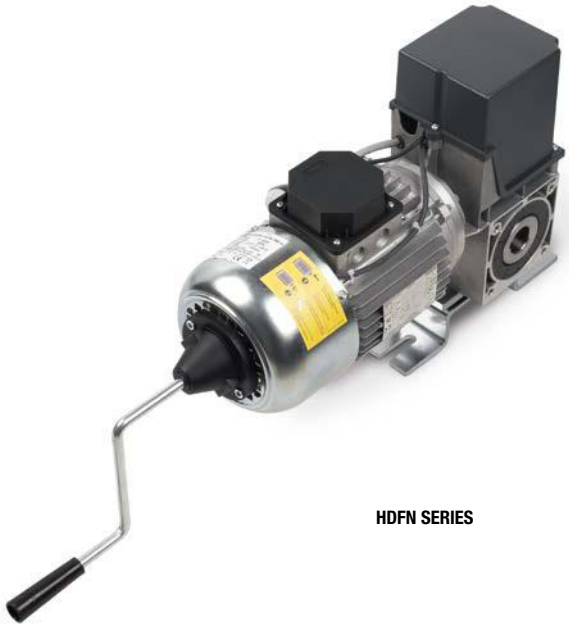
		COMPATIBILITY				
Code	Description	5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
HDFNI 35.140 E15 KU	HDFNI 35 Nm 140 rpm Ø25 mm with brake	**INCLUDED**	-	-	**NO COMPATIBLE**	**NDCC1100**
	HDFNI 35 Nm 140 rpm Ø25.4 mm with brake					
	HDFNI 35 Nm 140 rpm Ø30 mm with brake					
HDFNI 45.95 EL15 KU	HDFNI 45 Nm 95 rpm Ø25 mm with brake	-	**INCLUDED**			
	HDFNI 45 Nm 95 rpm Ø25.4 mm with brake					
	HDFNI 45 Nm 95 rpm Ø30 mm with brake					
HDFNI 60.140 EL15 KU	HDFNI 60 Nm 140 rpm Ø25 mm with brake					
	HDFNI 60 Nm 140 rpm Ø25.4 mm with brake					
	HDFNI 60 Nm 140 rpm Ø30 mm with brake					
HDFNI 80.90 EL15 KU	HDFNI 80 Nm 90 rpm Ø25 mm with brake					
	HDFNI 80 Nm 90 rpm Ø25.4 mm with brake					
	HDFNI 80 Nm 90 rpm Ø30 mm with brake					

20 turns

		COMPATIBILITY				
Code	Description	5 m cable	7 m cable	11 m cable	D-Pro Action	D-Pro Automatic
HDFNI 120.140 EL20 KU	HDFNI 120 Nm 140 rpm Ø30 mm with brake	-	**INCLUDED**	-	**NO COMPATIBLE**	**NDCC1100**
	HDFNI 120 Nm 140 rpm Ø40 mm with brake					
HDFNI 160.95 EL20 KU	HDFNI 160 Nm 95 rpm Ø30 mm with brake					
	HDFNI 160 Nm 95 rpm Ø40 mm with brake					
HDFNI 220.70 EL20 KU	HDFNI 220 Nm 70 rpm Ø30 mm with brake					
	HDFNI 220 Nm 70 rpm Ø40 mm with brake					
HDFNI 300.45 EL20 KU	HDFNI 300 Nm 45 rpm Ø30 mm with brake					
	HDFNI 300 Nm 45 rpm Ø40 mm with brake					

HDFN / HDFNI

For high speed doors



HDFN SERIES

HDFNI SERIES

Electromechanical gearmotor for high speed doors, with or without integrated inverter, electronic limit switches, crank emergency (KU series), integrated anti-fallback device, brake and fixing bracket.

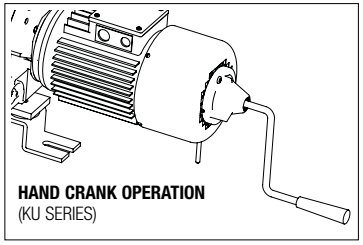
Simple installation
The HDFN/HDFNI series is installed directly on the shaft of the door (Ø 25 mm, Ø 30 mm and Ø 40 mm). The HDFNI gearmotors are equipped with a pre-wired cable and Plug&Play connection with D-Pro family control units.

Compact and efficient:
torque up to 300 Nm, speed up to 140 rpm at 50 Hz.

Practical:
release available with crank emergency.

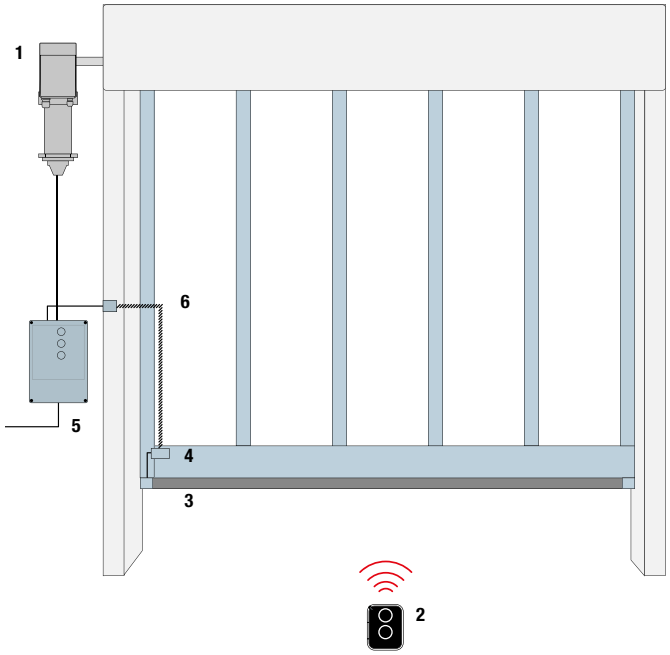
High safety thanks to the integrated anti-fallback safety system and possibility of connecting safety devices and optical or resistive 8.2 kΩ sensitive bars, the gearmotors are compliant with the most recent European standards and directives.

EMERGENCY OPERATION



HAND CRANK OPERATION
(KU SERIES)

INSTALLATION DIAGRAM



HIGH SPEED DOORS
1. HDFN/HDFNI gearmotor
2. Transmitter
3. Sensitive edge
4. Connector block
5. Control unit
6. Spiral cable

TECHNICAL SPECIFICATIONS

Code	HDFN-35-140	HDFN-45-95	HDFN-60-140	HDFN-80-90	HDFN-160-95	HDFNI-35-140	HDFNI-45-95	HDFNI-60-140	HDFNI-80-90	HDFNI-120-140	HDFNI-160-95	HDFNI-220-70	HDFNI-300-45
Shaft Ø (mm)	25/25.4/30				30/40	25/25.4/30				30/40			
Max. Torque (Nm)	35	45	60	80	160	35	45	60	80	120	160	220	300
Rated Torque (Nm)	27	36	40	60	100	30	36	45	60	100	85	200	240
Output (rpm)	140	95	140	90	95	140	95	140	90	140	95	70	45
Motor Power (kW)	0.75	0.55	1.1	0.9	2.2	1.1	0.9	1.1	0.9	2.2			
Limit Switch Range	15				20	15				20			
Power Supply (V)	3 x 400					1 x 230							
Working frequency (Hz)	50					50							
Rated current (A)	1.9	1.8	2.6	9.7	4	-		4.8		15.8	15.6	12.7	15.5
Cycles/hour	90	1400	80	50	50	233	100	130	76	85	58	40	26
Connection cable (n° x mm²)	4 x 1.5 mm² - 6 x 0.75 mm² - 2 x 0.75 mm²					4 x 1.5 mm² - 6 x 0.75 mm² - 2 x 0.75 mm²							
Operating temperature (°C)	-20 ÷ +40					-20 ÷ +40							
Noise dB(A)	<70					<70							
Protection rating (IP)	54					54							
Weight (kg)	16		17	30	35	18		19	32	37			

Electrical Accessories

For D-Pro Automatic control units

NDA004
Bluetooth module for D-Pro Automatic control unit management via smartphone.

NDA006
K60 module for D-Pro Automatic control unit, to communicate via CAN bus (combined with NDA008 module).

NDA008
K65 module for D-Pro Automatic control unit, for remote control (combined with NDA0006 module).

NDA030
K30 expansion module for D-Pro Automatic to add further inputs, outputs and to control traffic lights.

NDA070
K70 expansion module for D-Pro Automatic for 2 channels loop detector.

Other accessories

Code	Description
720000001100	CEE threephase power supply plug, 1m long
CA8.5320	Schuko singlephase, 90°, 2 m long
730000001023	Main switch for control units
730000001030	Emergency switch, Normally Closed
920512000730	Wall mounted external push button, open-stop-close buttons, 7 m long cable
920512000731	Wall mounted external push button, open-close buttons, emergency switch, 7 m long cable

Security devices

920132111001
Optosensors with Diagnosis function
(10.5 m long cable).

920081155516
Spiralcable 5 x 0,5 qmm, 0,8 m
spiraled / 1,6 m stretched.

920081155550
Spiralcable 5 x 0,5 qmm,
0,8 m spiraled / 5m stretched.

920821000010
Safety switch against possible cable breaks
or slackering.

920811000010
Slack Rope Cylindrical Switch Rope
Brake against cable breaks.

NDA010
Junction Box with integrated pneumatic
switch for pneumatic safety edge.

NDA011
Junction Box black, with board, plugable
with hole Ø 16m.

NDA012
Junction Box black, with board, plugable
with hole Ø 16 m incl. SBA-Sensor
for autom. Floor Level Regulation.

NDA013
Junction Box black, with board, plugable
without hole.

Code	Description
920091100085	Connecting Cable for 2 junction boxes, lenght 8.5 m
920540100041	Roller Lever Switch
920670000020	Wicked Door Contact
920630000110	Pass Through Photocell with Reflector
TCLS	Light Curtain 2.500 mm
TCLS1	Light Curtain 2.030 mm
TCLSC	Connecting Cable for Light Curtain 10 m
TCLSC3	Connecting Cable for Light Curtain 3 m
TCLSFSS230	FSS controler for Light Curtain 230 Vac
TCLSFSS24	FSS controler for Light Curtain 24 Vdc
920141000010	Rubber Profile 1m
920320228100	C-rail, Aluminium 28 mm x 10 mm, in 2 m-pcs.

Electrical Accessories

Photocells

EPS
Pair of outdoor photocells slim.

EPSA
Pair of outdoor photocells slim, burglar-resistant metal body.

EPM
Pair of outdoor photocells.

EPMO
Pair of outdoor photocells, 30° positionable.

EPMA
Pair of outdoor photocells, burglar-resistant metal body.

EPMAO
Pair of outdoor photocells, 30° positionable, burglar-resistant metal body.

EPL
Pair of surface-mounted photocells large.

EPLO
Pair of surface-mounted photocells large, 30° positionable.

EPLIO
Pair of photocells large for recessed mounting, 30° positionable.

EKA03
Bowl for recessed mounting (depth 66 mm) for installation of EKSI, EKSIEU. Also compatible with EPLIO, EPLIOB, EDSI, EDSIB.

F210
Pair of optical devices for sensitive edges fastened on moving door, can be swivelled through 210° with relay output.
Battery kit (fta1/fta2) compulsory..

FA1
Vandal-proof metal shell.

Selectors, proximity reader and flashing light

EDSWG
Radio digital selector compatible with the receivers of the flor series.

EKSEU
Key selector Era series, european cylinder, for outdoor installation.

EKSIEU
Key selector era series, european cylinder, for recessed mounting.

EKS
Key selector era series, for outdoor installation.

EKSI
Key selector era series, for recessed mounting.

ETP
Proximity reader for transponder cards MOCARD and MOCARDP to be combined with the MORX decoder

MORX
Decoder for 1 etp or up to 4 EDS/EDSI connected in parallel, with 1 BM1000 memory for 255 combinations.

MOCARD
Transponder card programmable via OBOX.

MOCARDP
Transponder card programmable via OBox, with sequential coding for multiple entry.

HSB1
Transponder badge newly programmable via OBox, with sequential coding for multiple entry.

ELAC
Signal LED flashing light, 90-240 Vac, for preset control units.

Other accessories

Code	Description
CHS	Neutral key for EKS, EKSI
CHEU	Neutral key for EKSEU, EKSIEU
EKA02	Finishing kit for EDSI, EDSIB, EKSI, EKSIEU installation
EKA03	Bowl for recessed mounting (depth 66 mm) for installation of EKSI, EKSIEU. Also compatible with EPLIO, EPLIOB, EDSI, EDSIB.
BM1000	Additional memory for additional 255 combinations.

Mechanical accessories

Adapters*

Code	Description
NDA500	Adapter from 31.75 to 25.4 mm shaft
NDA501	Adapter from 40 to 25.4 mm shaft
NDA502	Adapter from 40 to 30 mm shaft
NDA503	Adapter from 40 to 31.75 mm shaft
NDA504	Adapter from 55 to 40 mm shaft
NDA505	Adapter from 30 to 25.4 mm shaft
NDA506	Adapter from 30 to 25 mm shaft
NDA507	Adapter from 40 to 25 mm shaft

*Other sizes are available on request.

Chain emergency operation systems

Code	Description
NDSP0001	Emergency handchain system for SD cast bevel gear (low cost)
NDSP0009	Emergency handchain system for SD steel bevel gear
NDSP0004	Emergency handchain system for RDF140
NDSP0006	Emergency handchain system for RDF-220/350
NDSP0002	Emergency handchain system for RDF-380/750-9,5
NDSP0007	Emergency handchain system for RDF750-24/850Nm and above

Extra chain

Code	Description
900029000050	Additional chain, 5 m length
100031010000	Additional chain, in rolls of 100 m, per meter
100031010001	Link for additional chain

Heating devices

Code	Description
PW1	Heating element for the automation system
TW1	Regulation thermostat

Accessories for rolling shutters*

Code	Description
NDA540	Kit with shafts Ø30 mm (motor side with key + opposite side)
NDA541	Kit with shafts Ø40 mm (motor side with key + opposite side)
NDA542	Kit with shafts Ø55 mm (motor side with key + opposite side)
910510000300	Shaft bearing Ø30 mm
910510000400	Shaft bearing Ø40 mm
910510000550	Shaft bearing Ø55 mm
133003201	Shaft bearing, wall mounted Ø30 mm
133055601	Shaft bearing, wall mounted Ø40 mm
910310003000	Triangular bracket for horizontal mounting, up to 300 kg
910310005300	Triangular bracket for horizontal mounting, up to 530 kg
910310013000	Triangular bracket for horizontal mounting, up to 1300 kg
910310025000	Triangular bracket for horizontal mounting, up to 2500 kg
131176001	Disk for Shaft Ø30, to suit tube Ø98 x 2; 100 x 3 e 101.6 x 3.6 mm
141103201	Disk for Shaft Ø30, to suit tube Ø133 x 4 mm
131176101	Disk for Shaft Ø30, to suit tube Ø133 x 2 mm
131176201	Disk for Shaft Ø30, to suit tube Ø159 x 4.5 mm
141105401	Disk for Shaft Ø30, to suit tube Ø168.3 x 4.5 mm
141109501	Disk for Shaft Ø30, to suit tube Ø193.7 x 5.4 mm
131046101	Disk for Shaft Ø40, to suit tube Ø133 x 4 mm
131025701	Disk for Shaft Ø40, to suit tube Ø159 x 4,5 mm
131026201	Disk for Shaft Ø40, to suit tube Ø168.3 x 4.5 mm
141026201	Disk for Shaft Ø40, to suit tube Ø193.7 x 5.4 mm
141106101	Disk for Shaft Ø40, to suit tube Ø219.1 x 5.9 mm
141106201	Disk for Shaft Ø40, to suit tube Ø244.5 x 6.3 mm

*Other sizes are available on request.

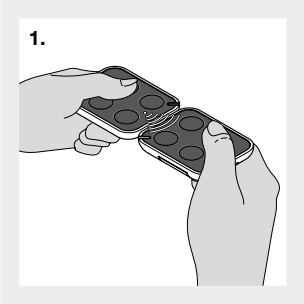
Accessories for chain-driven rolling shutters*

Code	Description
NDA520	Chain Reduction Kit 3/4",2:1,Shaft Ø30 mm, Pignion 12 + 24 Tooth, 2m Roller Chain
NDA521	Chain Reduction Kit 1",2:1,Shaft Ø40 mm, Pignion 12 + 24 Tooth, 2m Roller Chain
NDA522	Chain Reduction Kit 1"1/4, 2:1,Shaft Ø55 mm, Pignion 12 + 24 Tooth, 2m Roller Chain
NDA523	Chain Reduction Kit 3/4",3:1,Shaft Ø30 mm, Pignion 12 + 36 Tooth, 2.5m Roller Chain
NDA524	Chain Reduction Kit 1",3:1,Shaft Ø40 mm, Pignion 12 + 36 Tooth, 2.5m Roller Chain
NDA525	Chain Reduction Kit 1"1/4, 3:1,Shaft Ø55 mm, Pignion 12 + 36 Tooth, 2.5m Roller Chain
NDA526	Chain Reduction Kit 1:1 for SD, tension bracket, Shaft Ø25.4 mm, Pignion 12 + 12 Tooth, 1,5m Roller Chain
NDA560	Small motors foot bracket for chain reduction system
NDA562	Medium motors foot bracket for chain reduction system
NDA563	Big motors foot bracket for chain reduction system
245520003	Safety Bearing TA 1/2 RD .Max Torque 332 Nm
245530003	Safety Bearing TA 2/3 RD Max. Torque 552 Nm
245300001	Safety Bearing TA 4 RD Max. Torque 1063 Nm
245310001	Safety Baering TA 5 RD con Max. Torque 1943 Nm

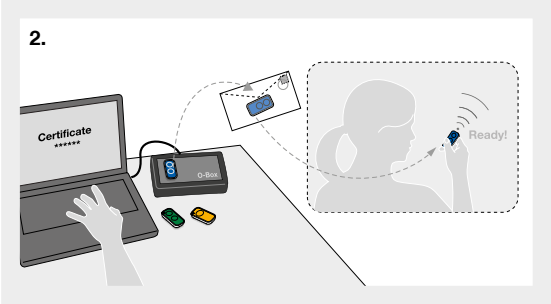
*Other sizes are available on request.

Era One

Transmitters



Code exchange between a memorized transmitter and a new one, to be memorized.



Possible memorisation using nice o-box and the “certificate”.

The system includes 1, 2, 4 and 9 channel transmitters and prewired receivers with connector, with and without built-in transmitter.

33.92 MHz rolling code, with management of Identity Codes and Certificates, self-learning and built-in proximity receiver; with 72 bit O-Code encoding, also compatible with receivers with Nice FloR encoding.

Evolved
uses data processing and recognition systems that increase its degree of security and deliver a threefold reduction in automation response times.

Easy memorisation, even at a distance, thanks to Opera receivers.

Senza recarsi in prossimità dell’impianto è possibile abilitare un nuovo trasmettitore Era One in due diverse modalità:

- using a transmitter already programmed in the receiver, thanks to the enabling Code exchange between the two (figure 1);
- using the Nice O-Box connection interface; the receiver’s Certificate is entered by just placing the new Era One next to the O-Box and following the guided procedure on a PC or PDA (figure 2).

Safe
If a transmitter is stolen or lost, with the O-Box the user can: replace it, maintaining the same functions as in the previous one, disable the old transmitter by increasing the priority level on the new Era One.

Elegant and convenient
the Era One transmitter can be used as a stylish, high-tech keyring or fixed to the wall or your car’s dashboard with the handy support included in the pack.

Era OneFM, ideal for use in cities or places where many devices are present.
868.46 MHz Rolling Code transmitter line, using frequency modulation (FM), less sensitive to interference than amplitude modulation AM.

ERA ONE TRANSMITTERS

Code	Description	Pcs/Pack
ON1E	1 channel, 433.92 MHz	10
ON2E	2 channels, 433.92 MHz	10
ON4E	4 channels, 433.92 MHz	10
ON9E	9 channesl, 433.92 MHz	10
ON1EFM	1 channel, 868.46 MHz	10
ON2EFM	2 channels, 868.46 MHz	10
ON4EFM	4 channels, 868.46 MHz	10
ON9EFM	9 channels, 868.46 MHz	10

TRANSMITTER TECHNICAL SPECIFICATIONS

	Carrier frequency	Estimated range	Encoding	Power supply	Battery life	Protection Class	Dimensions Weight
ON_E	433.92 MHz	200 m (outdoor); 35 m (if inside buildings)*	O-Code 72 bit; rolling code	3 Vdc; lithium battery CR2032	2 years (with 10 transmissions per day)	IP40 (use in protected environments)	44x55x10 h mm 11 g
ON_EFM	868.46 MHz						

* Transmitter range and receiver reception capacity may be affected by any devices operating on the same frequency in the area.

Receivers

The complete line of receivers with Opera system functions

OXI, OXIT

OX2, OX2T

OX4T

OXIFM, OXITFM

OX2FM, OX2TFM

Suitable for all installation requirements:

- **with connector**, compatible with Nice control units with SM port; ;
- **universal prewired**, for use with all types of control unit, or the control of any automation, lighting or irrigation system or other electric circuits.

Maximum flexibility:
up to 1024 transmitters can be memorised.

Convenient and practical
the inclusion of a transmitter in the OXIT/OXITFM, OX2T/OX2TFM and OX4T receivers allows radio codes to be accessed by means of the O-Box multifunction interface even when in inaccessible positions.

OXIT/OXITFM, OX2T/OX2TFM and OX4T receivers can be used as signal repeaters to increase the operating distance between transmitters and other One series receivers.

Secure use, thanks to the 3 password-protected levels.

The O-Box and dedicated software applications for PC and PDA allow:
- **quick, user-friendly programming** of receivers and transmitters;
- **management and printout of code list**;
- creation of individual **installation databases** (useful in multi-user systems).

SM plug-in receiver with Flor system functions, step-by-step and anti-burglar functions.

Management of multi-user system through the unique, personal code: the recognition receivers can receive and memorise up to 255 codes.

Memorisation: a particular receiver output can be associated to each transmitter key (e.g. key 3 TX= output 1 RX).

433.92 MHZ RECEIVERS, WITH OPERA SYSTEM FUNCTIONS

WITH CONNECTOR

Code	Description	Pcs./Pack.
OXI	4 channels, without built-in transmitter	1
OXIT	4 channels, with built-in transmitter	1

PRE-WIRED UNIVERSAL

OX2	2 channels, without built-in transmitter	1
OX2T	2 channels, with built-in transmitter	1
OX4T	4 channels, with built-in transmitter	1

868.46 MHZ RECEIVERS, WITH OPERA SYSTEM FUNCTIONS

WITH CONNECTOR

Code	Description	Pcs./Pack.
OXIFM	4 channels, without built-in transmitter	1
OXITFM	4 channels, with built-in transmitter	1

PRE-WIRED

OX2FM	2 channels, without built-in transmitter	1
OX2TFM	2 channels, with built-in transmitter	1

433,92 MHZ RECEIVERS, WITH FLOR SYSTEM FUNCTIONS

WITH SM PLUG-IN

Code	Description	Pcs./Pack.
SMXI	Up to 4 channels with 256-codes memory	1

PROFESSIONAL, TUNED DIRECTIONAL AERIAL

ABF	Bracket mounted	1

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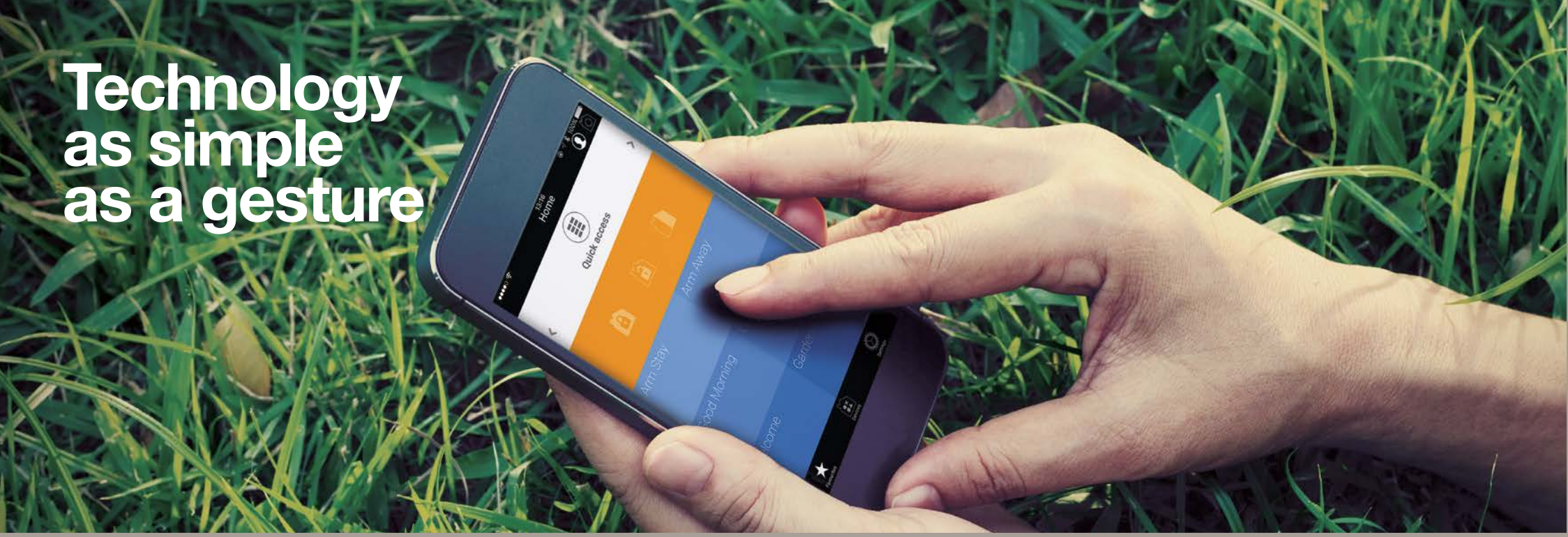

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