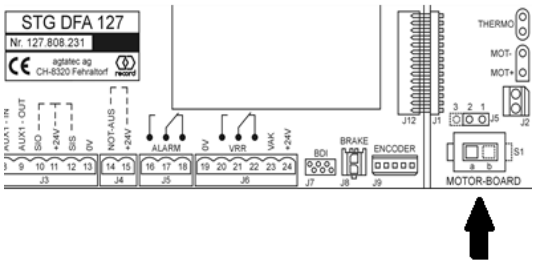
DFA 127 Basic quick set up

This Quick Guide is to be used in conjunction with a full installation manual. The installation should be risk assessed and set up in compliance with EN16005

Once you have mechanically fitted, your Swing unit follow this guide:

Fitting a pair? –Wire in the CAN Isolator before starting –(25 to 25, 26 to 26 etc..)
CAN-BUS WIRING = White- 25/ Brown -26 /Green-27/yellow-28.

1. Using jumper J14 on the STG 127, one operator is set as Master and the other as Slave. The operator of the active door leaf must always be selected as the Master
2. Select The rotation (Push or pull) on the Switch on the Control unit



A = PULL DIRECTION **B = PUSH DIRECTION**

3. Select English on the BDE then press the **C** button
4. Press blue button on the master operator for 4 flashes to enter programming mode -
5. Select configure system, then select **Door type**
6. Select either **UK - UK LOW E** or **Airport Brussels** depending on your risk assessment.
7. Exit programming mode.
8. Put the arm on with the door in the closed position approx. 0 deg, only finger tight
9. Press blue button for 3 flashes (On both operators if a pair) and step back from the door-s. The door should start to calibrate open slowly.
10. Stop the door-s at approx. 100 deg and the door-s will then close.
11. Select hold open on the BDED (top left)
12. Slacken the arm and close the door approx. 5 deg, tighten the arm finger tight ensuring it is correctly engaged on the splines – This Provides pre-tension on the springs.
13. Select manual operation on the BDED Top middle (snowflake) and the door will close.
14. Press and hold the RECORD reset symbol until reset appears and then select reset. The door will then evaluate the closed position and remember this as “Home”.
15. Tighten the arm (not overtight) and then select Automatic on the BDED.
16. Press the blue button and the door should then open and close.

17. Now It Is time to set up Your Speeds & Basic Parameters- Press blue button on the master for 4 flashes to enter programming mode.

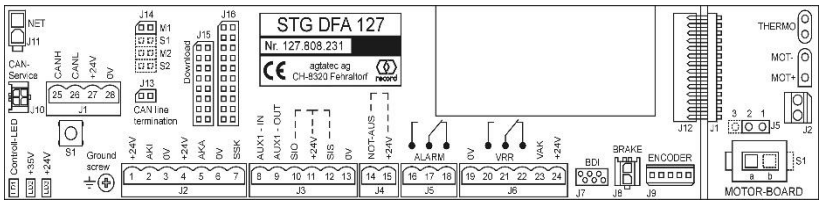
Or if in UK Mode

18. On the BDE Press **i** then  then **i** or  then then

This will get you into the quick menu where you can adjust basic speeds

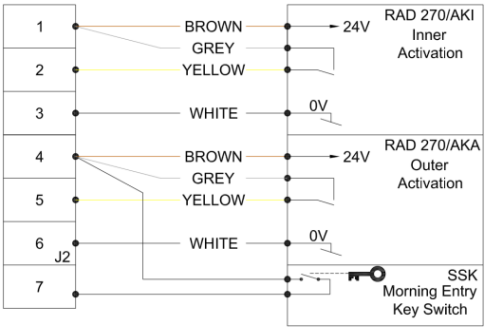
19. First Thing you will Notice is the Door open angle is not full.

Adjust the Open angle, open speed, close speed and Collision sensitivities according to site conditions and BS 16005.



Fitting Activations

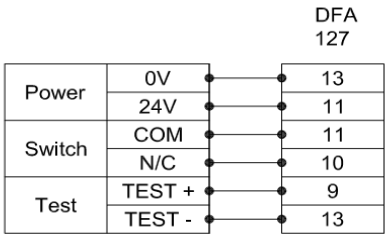
Wire your activation as per:



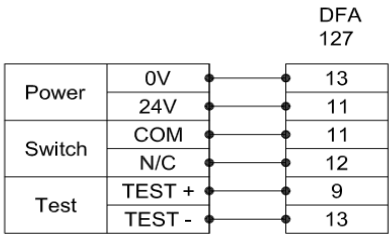
Test door in all operating Modes to confirm Activations are working correctly

Fitting on Door Safety

1. If Fitting RC SWING Fast Install Sensors – PLUG & PLAY – See separate Guide in sensor box.
2. If Fitting others – Please refer to Diagram below :



SIO
Open Face Safety



SIS
Close Face Safety

If you are using Standard sensors – you need to turn the Test contacts on. (Param STG- Inputs outputs- STG-Aux 1 out - test sensors)

If you alter the spring tension by turning the Bolt on the gearbox you must relearn the spring tension. **THE ARM MUST BE DISCONNECTED PRIOR TO DOING THIS**

Press blue button for 6 flashes to select the spring type(the spring will go back and forth – wait for it to stop) re fit the arm and re calibrate the door – On both operators if a pair

RECORD DFA 127 ABREVIATIONS

AKA - EXTERNAL ACTIVATION
AKI - INTERNAL ACTIVATION
ATE - DRIVE UNIT
BDE-D - ELECTRONIC PROGRAMME SELECTOR
BDI - 3 POSITION ROCKER SWITCH
BDI-M – CIRCUIT BOARD FOR MECHANICAL PROGRAMME SELECTOR
CAN-H SERIAL DATA INTERFACE
CAN-L SERIAL DATA INTERFACE
CPU – MAIN MICRO PROCESSOR
DFA – AUTOMATIC SWING DOOR OPERATOR
EPROM - PROGRAMMABLE MEMORY CHIP
IKG - ENCODER
MOT- MOTOR
NA - EMERGENCY STOP
NET - POWER SUPPLY UNIT
RAD - RADAR
SI - FUSE
SIO - OPENING FACE ON DOOR SAFETY – Written above Wiring Terminal
SIS - CLOSING FACE ON DOOR SAFETY – Written above Wiring Terminal
SSK - MORNING ENTRY KEY SWITCH
STG - CONTROL UNIT
VAK - LOCK CONTACT
VL - WIRING LIST
VVR – Electric Lock

Quick View of BDE Parameters

record parameter overview sheet DFA 127

SW from V1.30

Master or Slave

Please always leave the parameter overview sheet in the operator even when the STG is replaced!

D = Value will reset after default parameter loading
S1 = Slave 1 or Slave 2
M = Change in parameter only with multifunctional button on control unit (technical level)

All parameter modifications must be marked as follows in the relevant box:
Speedo: **programmed value**
parameter value: **X** (mark)

Parameter number				Parameter value (**factory settings** printed bold)					
D	S1	Description	M	1	2	3	4	5	6
		DRIVING CYCLE							
X		Closing speed			*(Speedo)*				
X		Opening speed			*(Speedo)*				
X		Acceleration	M		*(Speedo)* *Different accelerations*				
X		Latch check	M		*(Speedo)* *Start latch check by closing*				
		TIME DELAY OPEN							
X		Time delay open			*(Speedo)*				
X		Time delay SSK			*(Speedo)*				
		DRIVE							
X	X	Opening angle			*(Speedo)*				
X	X	Collision			*(Speedo)*				
	X	Brake	M	**Without**	Closing position	Opening position	Open/Clos pos.		
	X	Types of arms	M	Standard arm	**Sliding pulling**	Sliding pushing	Inheader		
		Invers	M	**Disabled**	Enabled				
	X	Spring type	M	**Unknown**	EN 4	EN 5	EN 6		
X		Limit open	M	**Disabled**	Enabled				
		ENTRANCE SYSTEM							
		Fire alarm	M	**Disabled**	Enabled				
X	X	Control	M	**Single control**	Master control	Slave control			
X		Interlock type	M	**Without inter-lock**	Master-Slave *(single leaf inter-lock control)*	Master-Master *(double leaves interlock control)*			
		Door type	M	**Basic operator**	USA	USA Low Energy	EU Low Energy		
		MS 2-LEAVES							
X		Function AKA	M	**Master+slave**	Master only				
X		Overlap	M		*(Speedo)* *0 = No overlap*				
X		Open sequence	M		*(Speedo)* *0 = Simultaneous opening*				
X		Close sequence	M		*(Speedo)* *0 = Simultaneous closing*				
		MANUAL CONTROL							
X		During closing	M	**Disabled**	Enabled				
X		When locked	M	**Disabled**	Enabled				
X		Collision	M	**Disabled**	Enabled				
X		Support during closing	M	**Disabled**	Constant	Cumulative	Final bang	Slowly, cumula-tive	Slowly, final bang
X		Active sensors	M	**Disabled**	SIS disabled	SIS enabled			
X		Closing speed	M		*(Speedo)*				
		CONTROL PANEL							
X	X	Mech. panel	M	**3 Pos. (AUTO)** *Manual; Automatic; Cont. open*	4 Positions *Automatic; Manual; Cont. open; Locked*	3 Pos. (OFF-A) *Automatic; OFF; Cont. open*	3 Pos. (OFF-M) *Manual; OFF; Cont. open*	3 Pos. (Lock-A) *Automatic; Locked; Cont. open*	3 Pos. (Lock-M) *Manual; Locked; Cont. open*
		BDE-D (submenu)							
		Language	M	Deutsch	Français	**English**	English US		
		Keyboard	M	**Normal**	OFF-Mode				
		Contrast BDE 1	M		*(Speedo)*				
		Contrast BDE 2	M		*(Speedo)*				
		Light time	M		*(Speedo)*				
		LOCKING							
		Locking function	M	**Normally locked**	Always locked				
		Lock type	M	**Standard**	Locking bolt	Magnet	Pulse		
		VRR manually	M	**Disabled**	Enabled				
		Start delay	M		*(Speedo)*				
		INPUT							
X		AUX1_IN	M	**Disabled**	BEA Bodyguard				
X		AKA_IN	M	**AKA**	Railbeam				
		OUTPUT							
X		AUX1_OUT	M	**Disabled**	BEA Bodyguard	Test closed	Test open		
		MISCELLANEOUS							
X	X	Push to actuate	M	**Disabled**	Normal *(motored)*	Slow *(motored)*	HB with sensors		

Order number:	**Client:**							
Programming by end customer / changes	Date	Initials						

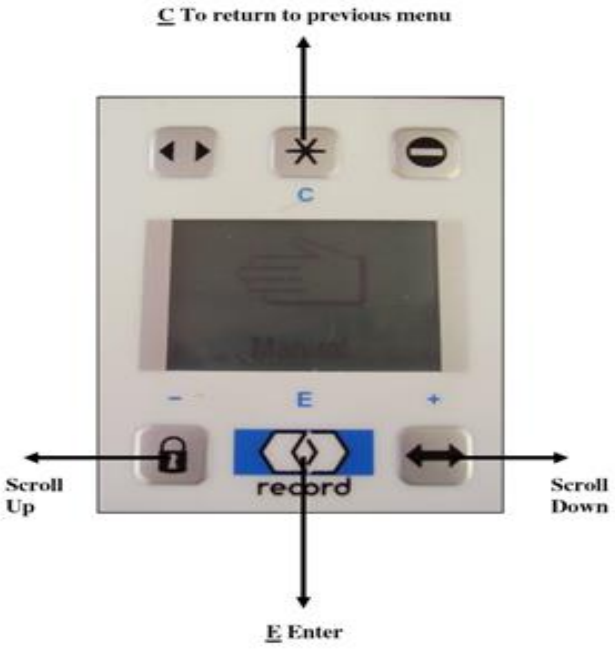
This parameter overview shows all possible settings. Depending on drive type and configuration the access is restricted.

Guide to Blue Button on the master processor– Multiple Use (MF)

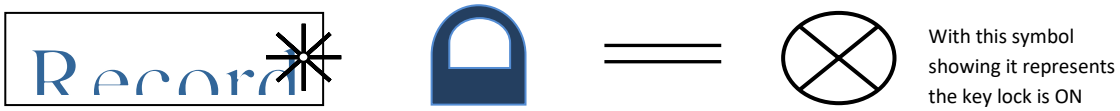
No of Flashes	Level
1	Single Impulse – Opens Door
3	Learns door parameters (Calibration Run)
4	Programming mode
6	Spring Calibration run on the DFA 127 – Before connecting Arm
8	Factory standards reset
9	Full Reset -9 flash and then pull the emergency stop OUT then IN
14	Soft reset the same as the Record Logo

BDE – Control Switch

◀ ▶	Hold Open
✳	Manual Operation
⊖	No Entry
⟷	2-Way Automatic
⌓	Locked / Closed



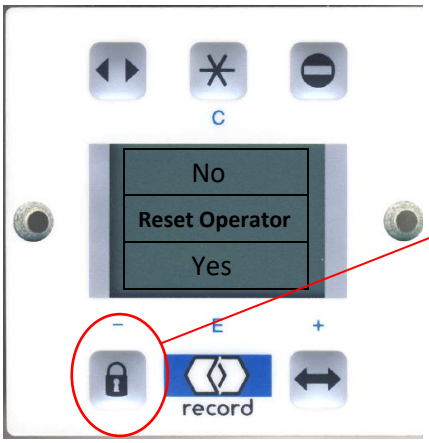
To both **Lock** and **Unlock** the Keypad operation:



With this symbol showing it represents the key lock is ON

To reset the door:

Press and hold the Record logo for 10-13sec. The message “DFA127 Software Version “will flash up, followed by the option to reset **yes / No**. Upon selecting **Yes** the doors will come to the closed position and reset. After 3sec activate the doors to open so they may go through one learn cycle of **open / close** (moves slowly) and complete their reset cycle.



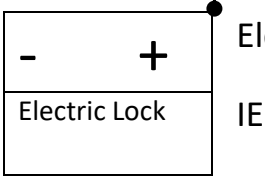
For final exit of the building, place the program selector into the locked function and when you are ready to leave press the lock symbol once to give a single open/close exit.

Once outside, stand clear of the sensors and after the doors are closed, then set your manual locks.

Remember to unlock manual locks prior to using the first entry key switch on the outside of the building.

ELECTRIC LOCK

0V	N/O	COM	N/C	VAK	24VDC
19	20	21	22	23	14



Electric Locking

IE Electric Strike

Or Mag Lock

For Fail Safe use terminal 20 N/O

For Fail Secure use terminal 22N/C

Select Locking function depending on requirements

Select lock type depending on what lock type is connected

Please note the VRR Relay is rated at 1 amp maximum load

To Get the Door to lock on electric mags when the closed position is selected on the Key switch you need to change the setting (In control panel Menu) to LOCK-A

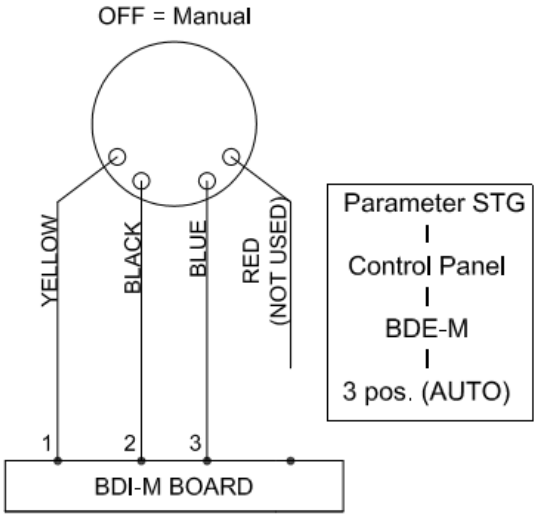
Programming of the BDI-M

REC 127 808 232

3 Position Auto		3 Position - LOCK-A		4-Position Switch (VDAH)	
RED 24v Common		RED 24V Common		RED 24V Common	
MANUAL		LOCKED		Rotary Switch	
No Connection	AUTO	No Connection	LOCKED	No Connection	LOCKED
Red / Green	MANUAL	Red / Green	AUTO	Red / Green	AUTO
Red / Blue	HOLD OPEN	Red / Blue	HOLD OPEN	Red / Blue	HOLD OPEN
				Red / Green + Blue	MANUAL
Terminal Connections on BDI-M					
3 -	AUTO	3 -	LOCKED	3 -	LOCKED
3 - 2	MANUAL	3 - 2	AUTO	3 – 2	AUTO
3 - 1	HOLD OPEN	3 - 1	HOLD OPEN	3 – 1	HOLD OPEN
				3 – 2 and 1	MANUAL

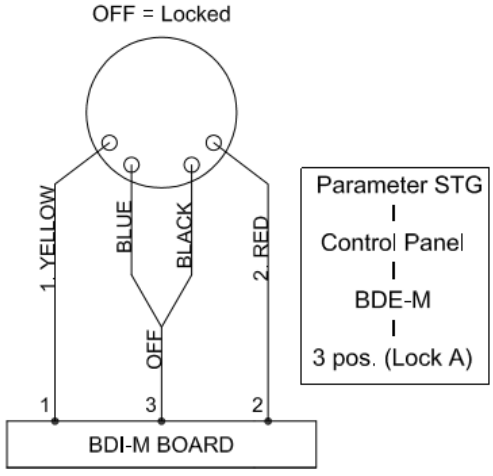
3 Position key switch
DFA127 swing door operator

OFF = Manual



3 Position key switch
DFA127 swing door operator

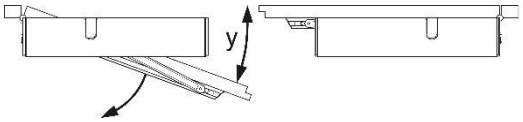
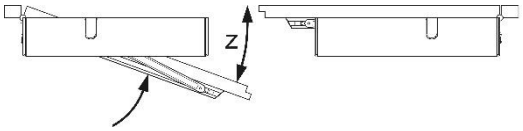
OFF = Locked



Parameter Description

Parameter	Setting range	Factory default	Description
DRIVING CYCLE			
Closing speed	0 - 40 (5 – 20 s)	18	Slider control with 40 steps
Opening speed	0 - 40 (3 - 20 s)	36	Slider control with 40 steps
Acceleration	0 – 40 (40 = max.)	36	Influences the start-up behaviour while opening and closing
Latch check	0 – 40	0	Earlier slow-down while closing elongates the length of run with minimal possible closing speed in the area of the last 20° (e.g. safeguarding against shearing edge)
TIME DELAY OPEN			
Time delay open	0 – 40 (0 – 60 s)	2	Effective with AKA, AKI and push to actuate 0 – 20: Steps of 1 s 21 – 40: Steps of 2 s
Time delay SSK	0 – 40 (0 – 60 s)	4	Effective with SSK 0 – 20: Steps of 1 s 21 – 40: Steps of 2 s
DRIVE			
Opening angle	0 – 40	35	The opening angle is estimated during the calibration run and is equivalent to the value of 40
Collision	0 – 40	20	Influences the force for the reversing 0: weak 40: strong
Brake	Without	Without	No brake integrated or no brake wanted
	Closing position		Holding brake with closed door
	Opening position		Holding brake with open door
	Open/closed position		Holding brake with open and closed door

Parameter	Setting range	Factory default	Description
Types of arms	Standard arm	Sliding pulling	Standard arm for pushing opening
	Sliding pulling		Sliding arm for pulling opening
	Sliding pushing		Sliding arm for pushing opening
	Inheader		Special application (for USA only)
Inverse	Disabled	Enabled	Opening of the door by spring tension in case of power failure.
	Enabled		
Spring type	Display only	EN 4	Springiness value is estimated during calibration run (MF 6. light pulse). Control with FPC 902: Spring type: EN 4: value from 35-41 EN 5: value from 42-59 EN 6: value from 60-89 Display *Unknown*, if the value could not be estimated or lies out of range.
Limit open	Disabled	Disabled	Enabled: The door hold is stronger in the open position.
	Enabled		
ENTRANCE SYSTEM			
Fire alarm	Disabled	Enabled	Enabled: specific adaptation for the requirement of the EN-norms for fire doors.
	Enabled		
Control	Single control	Single control	This setting is effected automatically under operating conditions. Simulation or Master/Slave-Control can be set with the FPC 902.
	Master control		
	Slave control		
Interlock type	Without interlock	Without interlock	Function not yet integrated
Door type	Basic operator	Basic operator	Frequently-used door types can be chosen for specific applications.
	USA		
	USA Low Energy		
	UK		
	UK Low Energy		

Parameter	Setting range	Factory default	Description
MASTER/SLAVE 2 DOOR LEAVES			
Function AKA	Master + Slave	Master + Slave	AKA is effective on both operators
	Master only		Entry AKA is only effective on the master operator, AKI and SSK are effective on both operators. One-way mode not possible.
Overlap	0 - 40	5	Only one door leaf moves in the pre-set overlap region. During the opening, the stationary leaf waits until the moving leaf has left the overlap region **y**.  During closing, the moving leaf waits until the stationary leaf has closed. 
Open sequence	0 - 40	5	Delayed start-up of the stationary leaf
Close sequence	0 - 40	20	Delayed closing of the moving leaf
			All modulators at 0 = synchronous activity. *Opening or closing sequence on 40:* *The subsequent door leaf waits until the first leaf has entirely opened or closed. With this setting, the overlap has the highest priority.*

Parameter	Setting range	Factory default	Description
MANUAL CONTROL			
During closing	Disabled	Disabled	Enabled: The door closes motor-guided only with spring tension.
	Enabled		
When locked	Disabled	Disabled	Enabled: When the door is in the *Locked* operation mode, it can be opened manually. The closing does not take place automatically. (*night-watchman mode*).
	Enabled		
When automatic	Disabled	Disabled	Enabled: When the door is in the *Automatic* operation mode, it can be opened manually. The closing does not take place automatically.
	Enabled		
Collision	Disabled	Disabled	Enabled: If the door leaf during closing stands still longer than 1 s, it is reopened with motor force. Active only, if a motor forced opening is allowed, e.g. *Manual control*/*Active Sensors.*
	Enabled		
Support during closing	Disabled	Disabled	Constant: constant motor closing force during the last 10°.
	Constant		
	Cumulative		Increasing motor closing force if the closing is obstructed during the last 10°.
	Final bang		Excursive increasing motor closing force during the last 2°.
	Slowly, cumulative		Slow closing with increasing motor closing force, if the closing is obstructed during the last 10°.
	Slowly, final bang		Decelerated closing with increasing motor closing force during the last 2°.
Active sensors	Disabled	Disabled	No sensor active
	SIS disabled		All sensors active (without SIS)
	SIS enabled		All sensors active (including SIS)
Closing speed	0 - 40	20	Slide control with 40 steps, setting the closing speed as it sees fit. Present locks must lock in place. This depends on the adjusted spring force.

Parameter	Setting range	Factory default	Description
CONTROL PANEL			
Mechanical panel (BDE-M) [1)]	3-digit (AUTO)	3-digit (AUTO)	*Manual; Automatic; Cont. open* Function corresponds to the symbols on the three-step rocker switch BDI on the side cover of the DFA 127.
	4-digit		*Automatic; Manual; Con. open; Locked* Adequate setting for time switch entries (e.g. *SUR-V*). Only possible with optional BDI-M.
	3-digit * (OFF-A)		*Automatic; OFF; Cont. open*
	3-digit * (OFF-M)		*Manual; OFF; Cont. open*
	3-digit * (LOCK-A)		*Automatic; Locked; Cont. open*
	3-digit * (LOCK-M)		*Manual; Locked; Cont. open*
			* CAUTION: Function does not correspond to the symbols on the three-step rocker switch BDI on the side cover of the DFA 127.
BDE-D *(→ Submenu)*			
Language	Deutsch	English	Language for the text output
	Français		
	English		
	English US		
Keyboard	Normal	Normal	Standard-Function (not for the USA)
	OFF-Mode		Special mode according to the description in chapter 13.2. The *Locked* mode is replaced by *OFF*.
Contrast BDE 1	0 - 40	0	Contrast setting for the BDE 1 display.
Contrast BDE 2	0 - 40	0	Contrast setting for the BDE 2 display.
Light time	0 - 40	0	Length of time for backlight: 0: No backlight 1 - 39: Corresponds to 1 - 39 s after pushing a key on the BDE-D 40: Continuous backlight

Parameter	Setting range	Factory default	Description
LOCKING			
Locking function	Normally locked	Normally locked	The VRR interlock is operated with the *Lock* button on the BDE-D or via the *Lock* position of the switch on the BDE-M.
	Always locked		The interlock VRR is permanently active and unlocks before opening with each connected actuator.
Lock type	Standard	Standard	For the standard electronic lock (e.g. eff-eff). The operator holds the door closed until the lock is unlocked. It remains actuated until the door is fully opened.
	Locking bolt		Suitable for motor-lock. The operator holds the door closed until the lock is unlocked. The power remains on until the door is closed again.
			The VAK input waits a max. of 5 s for indication of the reverse signal input of the lock before the door opens.
	Magnet		Analogous to bolt-function, but without holding closed.
	Pulse		The operator holds the door closed until the lock is unlocked. It remains actuated until the door is approx. 10° opened.
VRR manually	Disabled	Disabled	Enabled: All the actuators are disconnected if a signal is present on the VAK input from the reverse signal input of the lock . Approved for doors that are closed manually.
	Enabled		
Start delay	0 - 40 (0 - 8 s)	0	Application for motor locks without reverse signal on the input VAK. The opening is time-delayed.
INPUT			
AUX1_IN	Disabled	Disabled	Special function, currently for the USA only.
	BEA Bodyguard		
AUX2_IN	AKA	AKA	Special function, currently for the USA only.
	Railbeam		

Parameter	Setting range	Factory default	Description
OUTPUT			
AUX1_OUT	Disabled	Disabled	Special function, currently for the USA only.
	BEA Bodyguard		
	Test sensors		For safety sensors with integrated test input.
MISCELLANEOUS			
Push to actuate	Disabled	Disabled	Normal: the operator reacts only on a short acceleration of the door leaf and not on slow movements caused by increasing pressure (e.g. wind).
	Normal (motored)		
	Slow (motored)		Reaction like above, but slow door opening
	Manually operated with active sensors		The door can be opened manually. Special function, currently for the USA only.