Metaflex **SDA-05 Series**

Sliding Door Automation

Ease of use, Powerful & Optimal Safety within a Modular and Compact Design

The innovative SDA-05 is the next generation of sliding door automation, built on the success of the SDA-04. Its advanced features, high level of safety, and easy integration make it the ultimate choice for sliding door automation solutions. The modular and low-maintenance design guarantees reliable functionality and a long life cycle. Experience the future of door automation with the SDA-05 and bring the power of automation to your buildings.

Characteristics
- Reliable, smooth and silent operation
- Powerful automation: operates effortless in combination with hermetically sealed sliding doors, weighing up to 600 kg, lifting the door out of the indentations
- Pull & Go, Interlock and partly open are a selection of the many possibilities
- High quality: durability tests over 200.000 cycles according to EN1191:2012

Ease of use
- Auto-setup functionality that enables self-learning
- Customizable settings using software tooling
- Settings can be saved and used in other SDA-05 controllers
- Connectivity: WLAN, USB, CAN
- LAN connection for building management systems
- Many in/outputs with pre-defined default settings
- 3 relays, each relay has a selection of 15 different configuration settings

Optimal Safety
- In compliance with the EN16005 safety standard
- Automatic detection and testing of safety sensors
- Deceleration Measurement System (DMS); ensures that the door automatically stops and reverses if it encounters any obstruction, keeping users safe at all times
- Non-flammable plastic housing, beneficial for medical earthing

Modular Sliding Door Automation

The SDA-05 Sliding Door Automation, is the culmination of years of experience in the market. It has been specifically designed for use in healthcare sectors, clean rooms, distribution centre's, and food-processing areas. The SDA-05 is compatible with a wide range of drives, making it suitable for doors with different weights, including single and double leaf configurations, with a standard weight capacity of up to 600 kg. The SDA-05 can be powered by a 250VA, 500VA or 1000VA power supply, or it can be equipped with a durable battery pack for enhanced functionality.

Hermetic Sealed Sliding Doors Systems

Our Hermetic Sealed Sliding Doors are engineered to provide an airtight seal, ensuring superior hygiene, contamination control and energy saving benefits. With advanced hermetic sealing technology, these door systems prevent the transfer of airborne particles, bacteria, contaminants and pressure loss making them ideal for settings where hygiene and cleanliness are of the utmost importance.

The door systems are designed to operate smoothly and effortlessly. They are equipped with precision-engineered three-dimensional adjustable rollers and tracks that have 6mm indentations. These features ensure that the door leaf glides downward with ease, using its own weight to firmly press the sealing material against the wall frame and floor, resulting in a hermetic closure. Additionally, the innovative design of the roller track surface prevents dust or particles from getting trapped. The track systems are highly reliable and require minimal maintenance.

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SDA-05 & SDA-05 PRO Controller

The SDA-05 controller is available in two versions: the standard SDA-05 and SDA-05 PRO controller. The PRO version is designed to meet all the requirements of the Healthcare sector, while the standard version is tailored to the main needs of the Cold Chain market. The following section will outline the main differences between the two versions.

SDA-05
- 8 In- & Outputs
- Service QR-code
- WLAN connectivity to access and readout the controller
- Auto [LEARN] button to start the self learning process
- Several LED's for status indication
- 1 CAN connection
- Power & Drive Control/Feedback connections

SDA-05 PRO
- Covers the listed SDA-05 features
- 19 In- & Outputs
- 3 relays, each relay has a selection of 15 different configuration settings
- LAN connection for Building Management Systems
- USB connection next to WLAN to access and readout the controller
- 2 CAN connections e.g. for setting up an interlocking system for up to 10 doors

Functions

In/output	Function (Default setting)	Contact type (NO/NC)
0	Open	NO
1	Partly open	NO
2	Safety 1	NC
3	Safety 2	NC
4	Safety 3	NC
5	Safety 4	NC
6	Fire input	NC
7	Lock input	NO
+	+24V	
WD	Watchdog	
-	Ground	
8	Open Outside	NO
9	Partly Open Outside	NO

In/output	Function (Default setting)	Contact type (NO/NC)
10	One Way	NO
11	Emergency stop	NC
12	Emergency open	NC
+	+24V	
13	Custom input 1 (Lock Feedback)	NO/NC
14	Custom input 2 (Interlock Contact)	NO/NC
15	Custom input 3 (Unlock Feedback)	NO/NC
16	Custom input 4 (Stay Open)	NO/NC
17	Custom input 5 (WLAN/Learn)	NO/NC
O1	Custom Output 1	
-	Ground	

Relays	Function (Default setting)	
REL 1	Door closed	NO & NC
REL 2	Door locked	NO & NC
REL 3	Door end position	NO & NC

CAN	
CAN 1	For interlock and service
CAN 2	For interlock and service

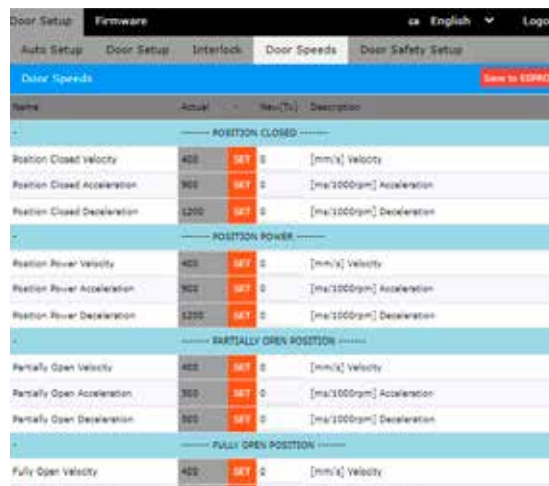| Relays Configuration	
0	Off
1	Activated when the door is closed (default setting of relay 1)
2	Activated when the door is not closed
3	Activated when the door has reached its final position (default setting of relay 3)
4	Activated when the door is partially or more than partially open
5	Activated when the door is fully open
6	Activate on door movement
7	Activate when the door is closed and the lock input is active (default setting of relay 2)
8	Enable when lock is active but door is not closed
9	Enable on internal error
10	Activates a 500 ms pulse at the start of opening
11	Activation 1s before closing until complete closing
12	Activate 1 sec before closing until the door starts to close
13	Activation when the end position is reached, up to 1 second before the door begins to close
14	Activate when the door is closed and interlock is active

Intuitive Software Tooling

Customization and parameter settings related to e.g. the opening and closing speed, half-open width, safety sensors and interlock settings of the door can be easily configured using specialized software tools or the intuitive web interface, which makes the process very convenient and user-friendly.

There are three user levels:

All, **Service** and **Installer**. **Service** and **Installer** are password-protected

The language in both the software tool and the web interface web, can be changed to: EN (Default), DE, FR & NL.

Specifications & Functionalities

Functionalities	Availability	Value/Remark
Self-learning / Re-homing	●	Door will recalibrate after every X amount of cycles
Various door locking settings available	●	Motor lock, external lock & both together
Safety Sensors	●	4 Separate safety inputs for a multitude of safety sensors
Interlocking	●	4 Door via relais & up to 10 doors via CAN
Deceleration Measurement System (DMS)	●	Automatic stop and reverse
Variety of opening pre-sets for switches and sensors	●	Continuous open, partial open, full open, partial to full by pressing twice, winter setting, puls open & close
Fire input	●	Various fire protection modes
Pull & Go	●	Motor assists for easy manual opening

Technical specifications SDA-05 & SDA-05 PRO	Unit	Value
Free passage	mm	800 – 3000
Maximum door weight	kg	600
Adjustable opening and closing speed	mm/s	Min 80, max 1200 *
Input power voltage	Volt DC	24 to 48
Input electronic voltage	Volt DC	24 to 30
Power consumption standby (no accessories)	Watt	+- 26 W***
Ambient operating temperature in use	°C	-20…+60
Ambient operating temperature in storage	°C	-25…+60
Ingress Protection	-	IP40
Humidity	%	10-95 (Non condensing)
Dimensions (LxWxH)	mm	242x130x41
Weight	Kg	0,5
Power supply voltage for accessories*	Volt DC	24 to 30
Power supply current for accessories (per output)	Milli Ampere	Max 750
Input/output voltage signals*	Volt DC	24 to 30
Input/output current signals	Milli Ampere	Max 250
Relays (only resistive loads)	Volt DC Volt AC	24 (max 8A) 250 (max 8A)

* Depends on motor and powersupply
** Depends on the voltage from power supply (battery pack ~28 - 29 V)
*** Valid for 250, 500 & 2x500VA

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Technical specifications Power supply (250VA/500VA/2x500VA)	Unit	Value
Primary (supply) voltage	Volt AC	230 ±10%
Net frequency	Hertz	45-65
Ambient operating temperature in use	°C	-20…+60
Ambient operating temperature in storage	°C	-20…+60
Ingress Protection	-	IP40
Humidity	%	10-95 (Non condensing)
Dimensions (LxWxH)	mm	242x130x69
Weight	Kg	250 VA = 2.0 kg 500 VA = 3.2 kg

Technical specifications Battery pack	Unit	Value
Primary (supply) voltage	Volt AC	90-264
Net frequency	Hertz	47-63
Power consumption	Watt	60
Ambient operating temperature in use	°C	+25…+30
Ambient operating temperature in storage	°C	-15…+40
Ingress Protection	-	-
Humidity	%	20-90 (Non condensing)
Dimensions (LxWxH)	mm	386x135x78
Weight	Kg	5
Battery type		Maintenance-free Sealed Lead-acid Battery 12V 7.0Ah (2x)
Battery weight (single)	Kg	2,4

Harmonized standards	Standard
Machinery Directive	2006/42/EG
Low Voltage Directive	2014/35/EG
Electromagnetic Compatibility Directive	2014/30/EG