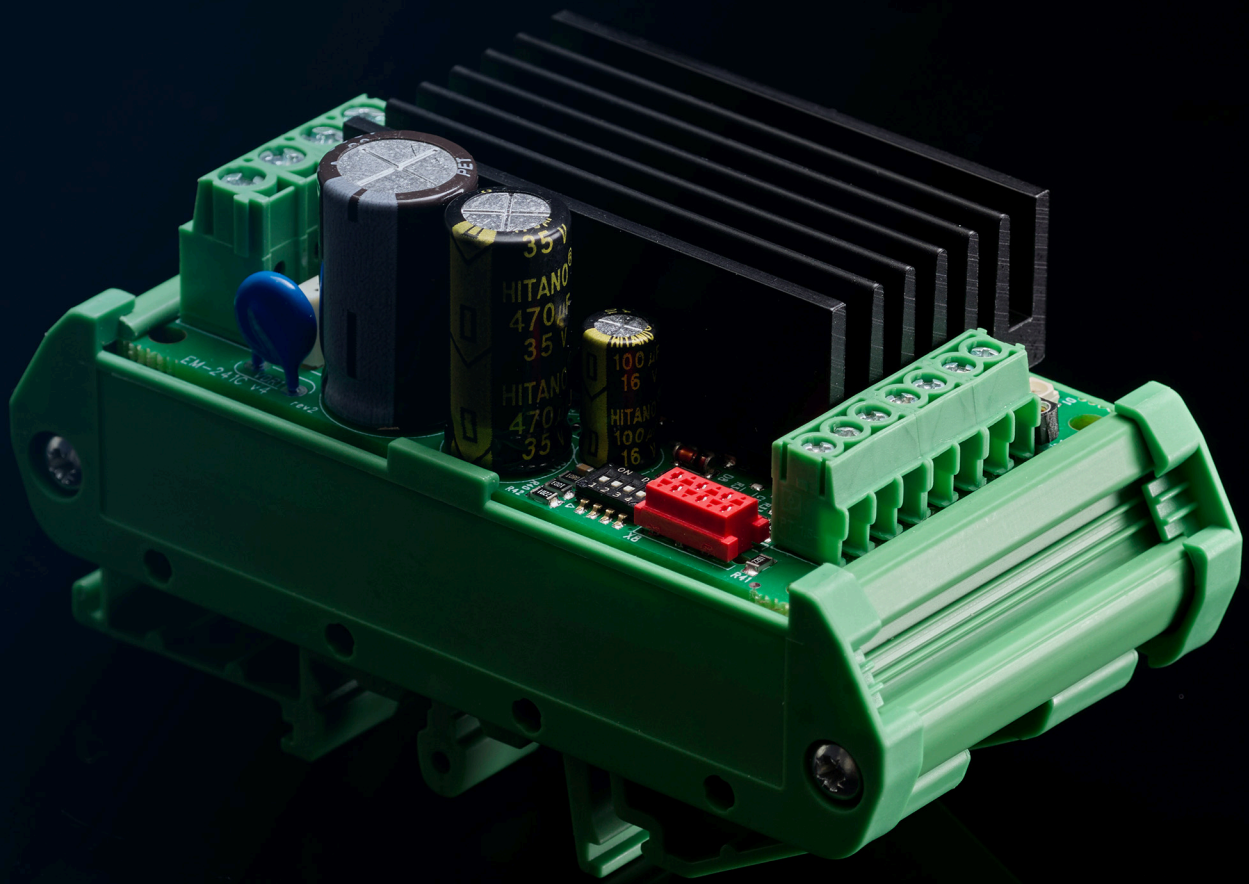
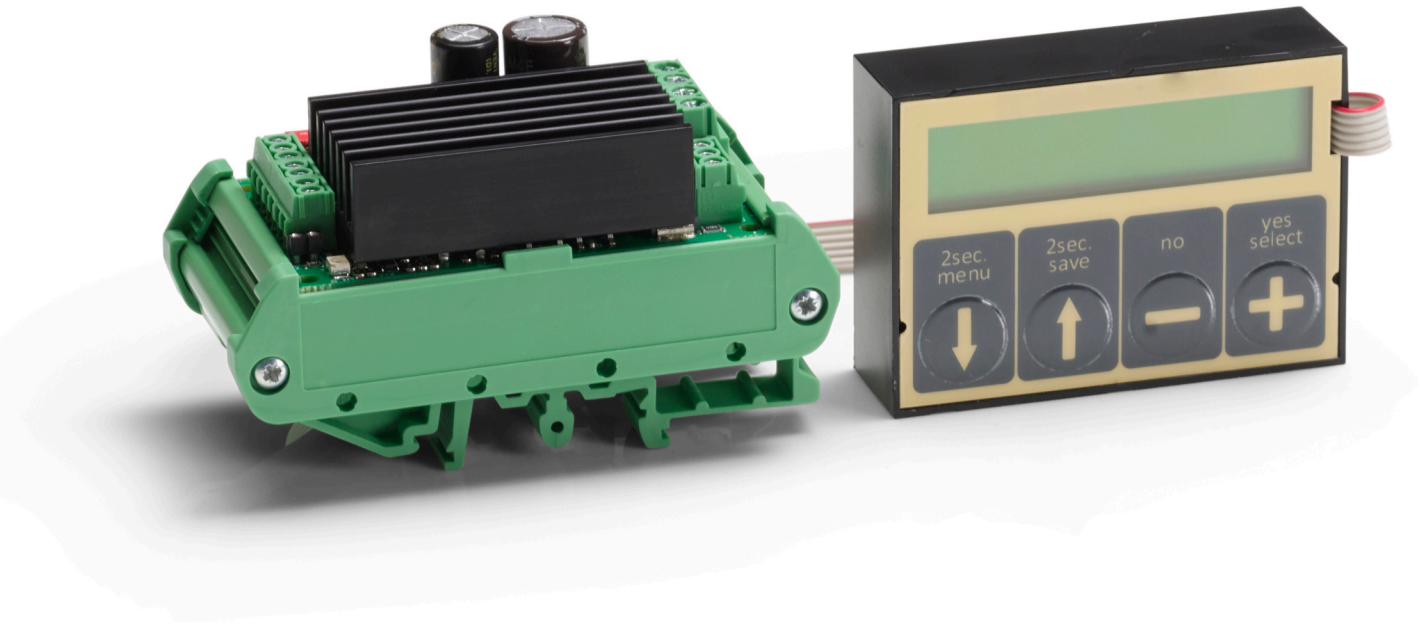
AS27 Closed Loop Position Controller Pulse Feedback

The AS27 Linear Actuator Controller is used as an electronic current limit device for a DC actuator.



AS27 Closed Loop Position Controller Pulse Feedback



AS27 Actuator Position Controller

The AS27 is used as a closed loop position controller for a DC actuator fitted with hall sensor feedback. The position is controlled via an analogue input signal.

The AS27 performs an automatic current stop if the motor is in an unforeseen overload situation. When the adjusted current level is exceeded the unit stops the actuator, in either direction of stroke, protecting the actuator from overload and the application from mechanical damage.

The sensitivity of this, as well as the many other functions of this controller are set with the Digital Interface Unit.

Key Features

- 0-5.5V, 0-1 1V and 4-20mA input signal options
- Input is freely scalable inside the range
- Digitally adjustable current sensing in both directions.
- Independent speed setting in both directions.
- The actuator movement range can be limited to suit the application
- A signal can be generated in the event of a trip situation.
- Start and stop ramps can be programmed
- 10 -35v DC Supply

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VAT. 807373820
Company Registration. 4492419
Registered Office. Industrial Devices, Unit 32A, Atcham Business Park, Shrewsbury, Shropshire, United Kingdom SY4 4UG

Telephone. +44(0)1743 248 700
Email. sales@industrialdevicesgroup.com
Website. www.actuatorselectric.com

Functions of the AS27, and how to set the parameters

Each of the functions of the AS27 are programmed via the Digital Interface Unit (DIU).

This simply plugs into the AS27 controller, to allow you to set, and adjust each parameter, the settings are saved, the DIU is then removed to prevent these settings being inadvertently altered.

No	Parameter	Options	Default	Description
1	Feedback mode - one or dual pulse	1-2	1	Number of hall sensors per actuator
2	Limit switch pulse logic	1-4	1	1- Limits PNP/pulses PNP 2- Limits PNP/pulses NPN 3- Limits PNP inverted/pulses PNP 4- Limits PNP inverted/pulses NPN
3	Run speed - Forward	20-100%	100	0 to 100% of normal running speed
4	Run speed - Reverse	20-100%	100	0 to 100% of normal running speed
5	Speed Home/Learn	20-100%	60	Speed of travel during Home Run or Learn Function
6	Current limit – Forward 0.1 A – 20A	1-200	30	Forward direction trip protection
7	Current limit – Reverse 0.1 A – 20A	1-200	30	Reverse direction trip protection
8	Trip delay	0-255ms	100	Over current trips after 100ms
9	Combiport function (pin 13)	1-4	1	Do not change– refer to IDGB
10	Over voltage limit	15-40V	35	Do not change– refer to IDGB
11	Load compensation	0-255	0	Do not change– refer to IDGB
12	Timeout	0-255s	0	Do not change– refer to IDGB
13	Reset for start and hour counter	0-1	0	Reset for time and hour count
14	Home Run/ Learn Function	1-7	1	Do not change– refer to IDGB
15	Disable input configuration	0-2	0	Do not change– refer to IDGB
16	Not used			
17	Dead Zone	0.2-5%	10	Do not change– refer to IDGB
18	Braking zone	1-8%	3	Do not change– refer to IDGB
19	Start ramp 0.1 -2.5 seconds	0-25	10	Time to accelerate to full speed
20	Stop ramp 0.1 -2.5 seconds	0-25	3	Time to decelerate to stop
21	Set minimum input value 0-5.5volts	0-551	0	Set the minimum value for the input signal
22	Set maximum input value 0-5.5volts	0-551	550	Set the maximum value for the input signal
23	Set the inner limit of travel 0...-50%	0-500	5	Shorten the inner limit of travel
24	Set the outer limit of travel 0...+50%	0-500	5	Shorten the outer limit of travel
25	Full Range (pulse edges)	100-655350	1000	Set the maximum number of pulses

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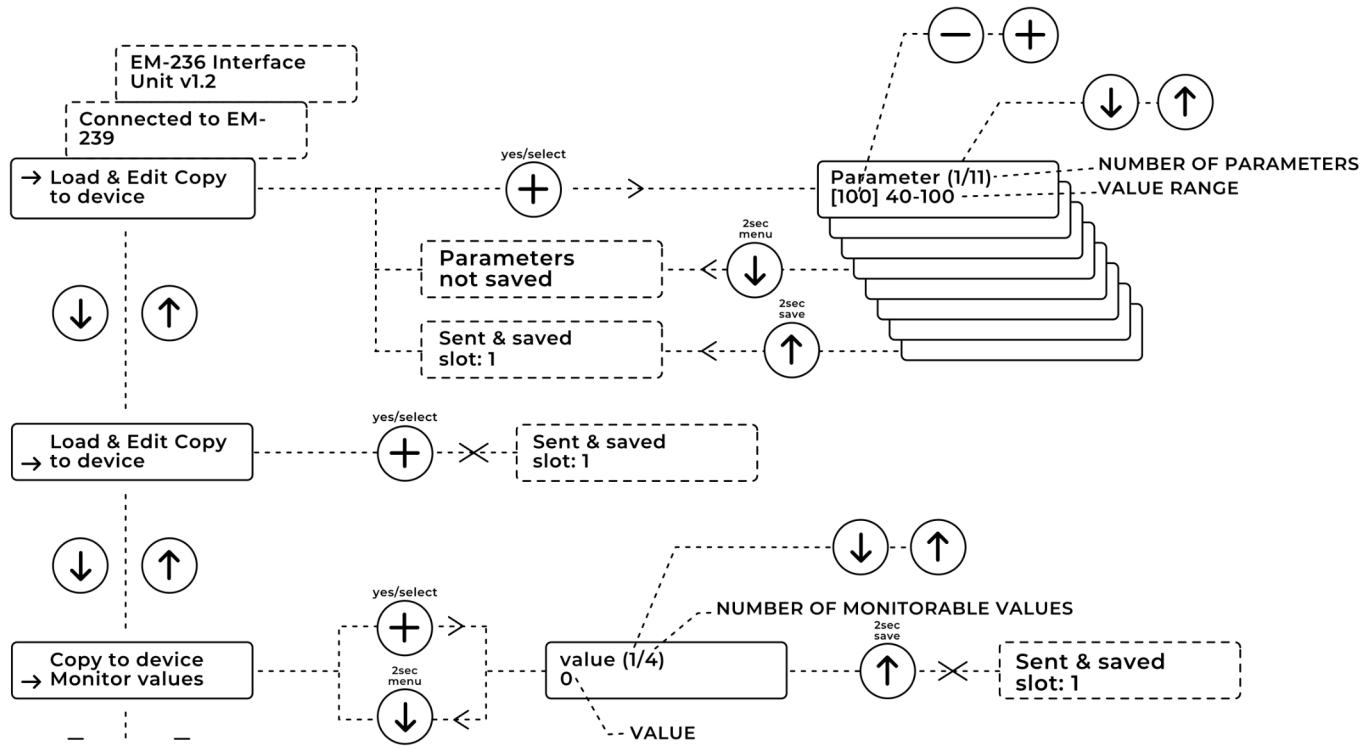
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Via the Digital Interface Unit you are also able to monitor various data –

1 – Fault code
2 – Motor current 0-20A (0-200)
3 – Target position 0-1 00.0% (0-1 000)
4 – Realisation position 0-1 00.0% (1 -1 000)
5 – Position as pulse edges 0-65535
6 – Hours counter (max. 65535h)
7 – Start counter (max. 65535)
8 – Start counter over flow counter (max. 65535)

Connecting it to a powered driver unit



START UP

The DIU is started up by connecting to the AS21

Load & Edit

This will pick up the parameters from the AS21. Parameters will be displayed and you can scroll and edit these with the DIU. After editing a value, it will blink three times before it is valid.

NOTE. Edited parameter list is only in the DIU until you save. After saving (by pressing the SAVE button for 2 seconds) new edited parameters will be sent to the AS21 and stored in its memory.

Copy to device

This will copy all the parameters within the DIU
to the AS21 in one command.

Monitor Values

This will enable the user to monitor various dynamic values during the use of the AS25.

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In the event of a fault, the LED located on the AS27 will flash to signify the following faults –

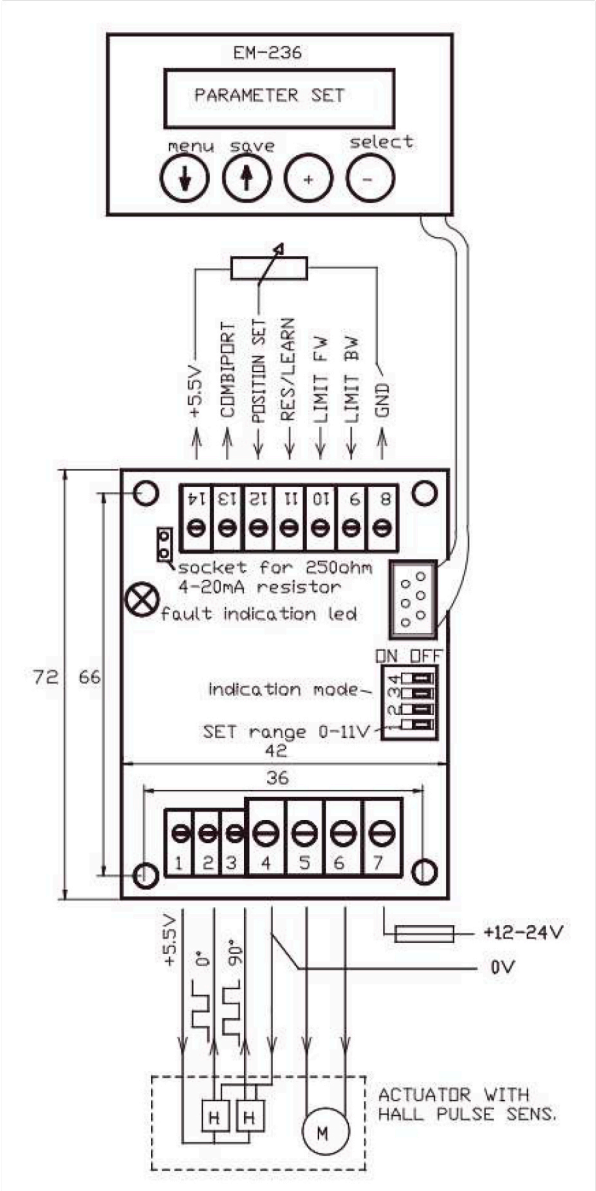
Current trip	1 blink...
Pulses lost	2 blinks
Over temperature	3 blinks
Over voltage	4 blinks
Time out trip	5 blinks
Learn corrupted	6 blinks

Connections

Supply voltage must be filtered DC of 1 0-35V, and ripple should be less than 30% at full load.

CAUTION ! Wrong polarity can damage the unit.

CAUTION ! Unit doesn't have an internal fuse, so a suitable external fuse should be used.



For more details on the setting up the AS27 please request the AS27 Technical Guide

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View AS27 Closed Loop Position Controller Pulse Feedback Online Visit: https://actuatorselectric.com

Contact

Our specialist team are always ready to listen and help, please drop us an email or call to talk with the team.

Address.

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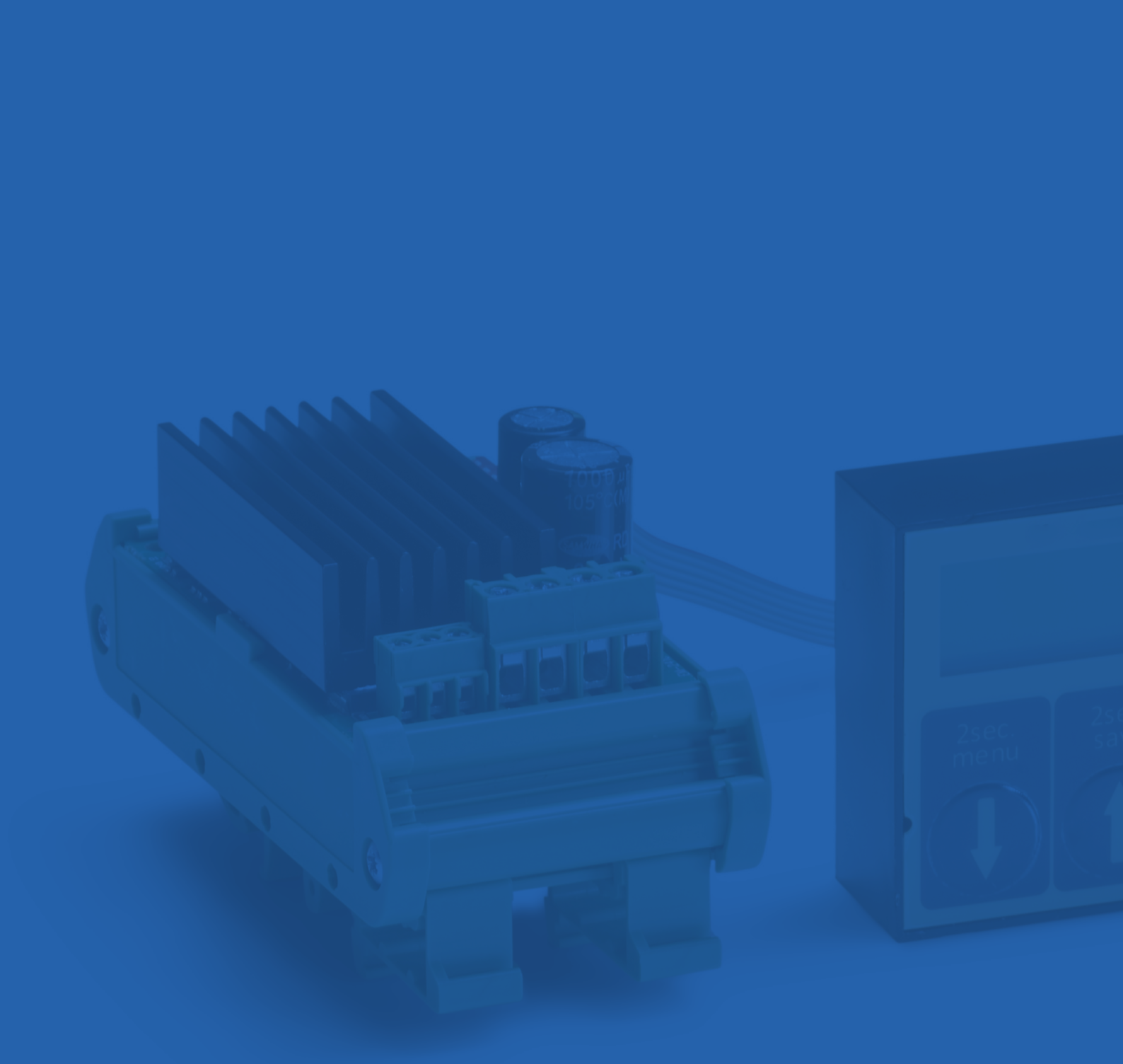
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