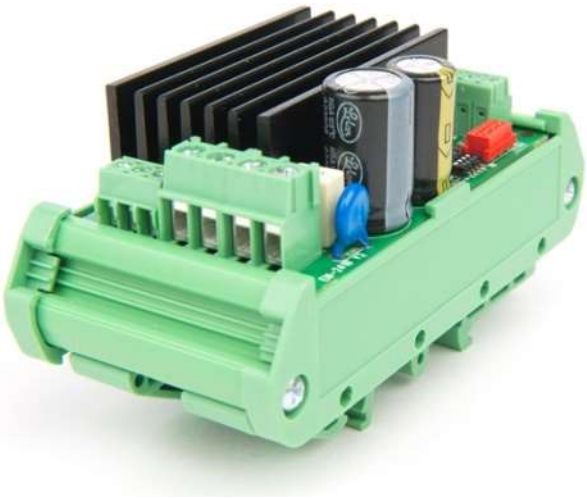
AS20 Current Limiter

The AS20 and AS26 Linear Actuator Controllers are used as an electronic current limit device for a DC actuator.





AS20 Actuator Controller

Description

The AS20 is used as an electronic speed controller and current sensing device for a DC actuator.

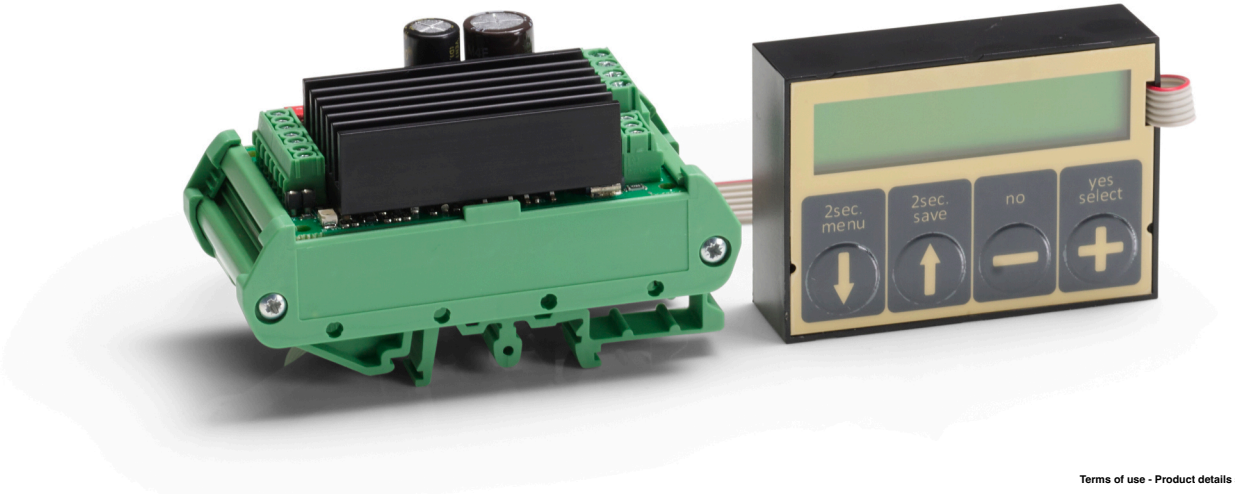
The AS20 performs an automatic current stop if the motor is in an unforeseen overload situation. When the adjusted current level is exceeded the unit stops the actuator, in either direction of stroke, protecting the actuator from overload and the application from mechanical damage.

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

Key Features

- Digitally adjustable current sensing in both directions of stroke.
- In the event of the actuator tripping, it will travel in the opposite direction for a pre- set period of time.
- A signal can be generated in the event of a trip situation.
- The actuator speed can be controlled, from 0-100% of the rated speed of the actuator, in either direction of movement.
- A soft start, and soft finish can be programmed (dependent on suitable actuator).
- 10 -35v DC Supply





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Functions of the AS20, and how to set the parameters

Each of the functions of the AS20 are programmed via the Digital Interface Unit (DIU). This simply plugs into the AS20 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.

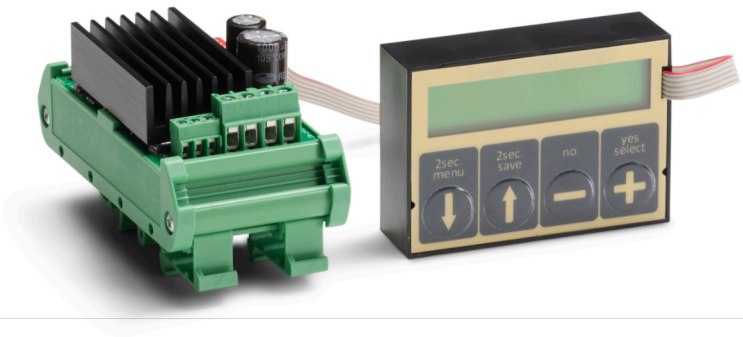
No	Parameter	Options	Default	Description
1	Command Mode	0-1	0	0= Press and hold to drive - forward or reverse 1= One touch operation –will then drive forward and reverse to limit switches after one touch
2	Start condition combinations	0-3	1	Actuator will only drive in opposite direction when tripped on over current
3	Input logic combinations	0-3	0	Do not change– refer to IDGB
4	Run speed - 1	0-100%	100%	Normal running speed
5	Run speed - 2	0-100%	50%	Selectable secondary speed
6	Current limit – Forward 0.1A –20A	1-200	30	Forward direction trip protection
7	Current limit – Reverse 0.1A –20A	1-200	30	Reverse direction trip protection
8	Trip combinations	0-3	1	Trips on over current
9	Trip delay	0-255ms	20	Over current trips after 20ms
10	Fault output combinations	0-3	1	Output signal when tripped on over current
11	Over voltage limit	15-40V	35	Do not change – refer to IDGB
12	Load compensation	0-255	0	Do not change – refer to IDGB
13	Timeout	0-255s	0	Do not change – refer to IDGB
14	Reset for start and hour counter	0-1	0	Reset for time and hour count
15	Start ramp 0-5 seconds	0-500	100	Time to accelerate to full speed
16	Stop ramp 0-5 seconds	0-500	100	Time to decelerate to stop
17	Start kick	0-200ms	0	Do not change – refer to IDGB
18	Current trip auto reverse 0-5 seconds	0-500	0	Actuator will drive in opposite direction for so many seconds following a current overload trip

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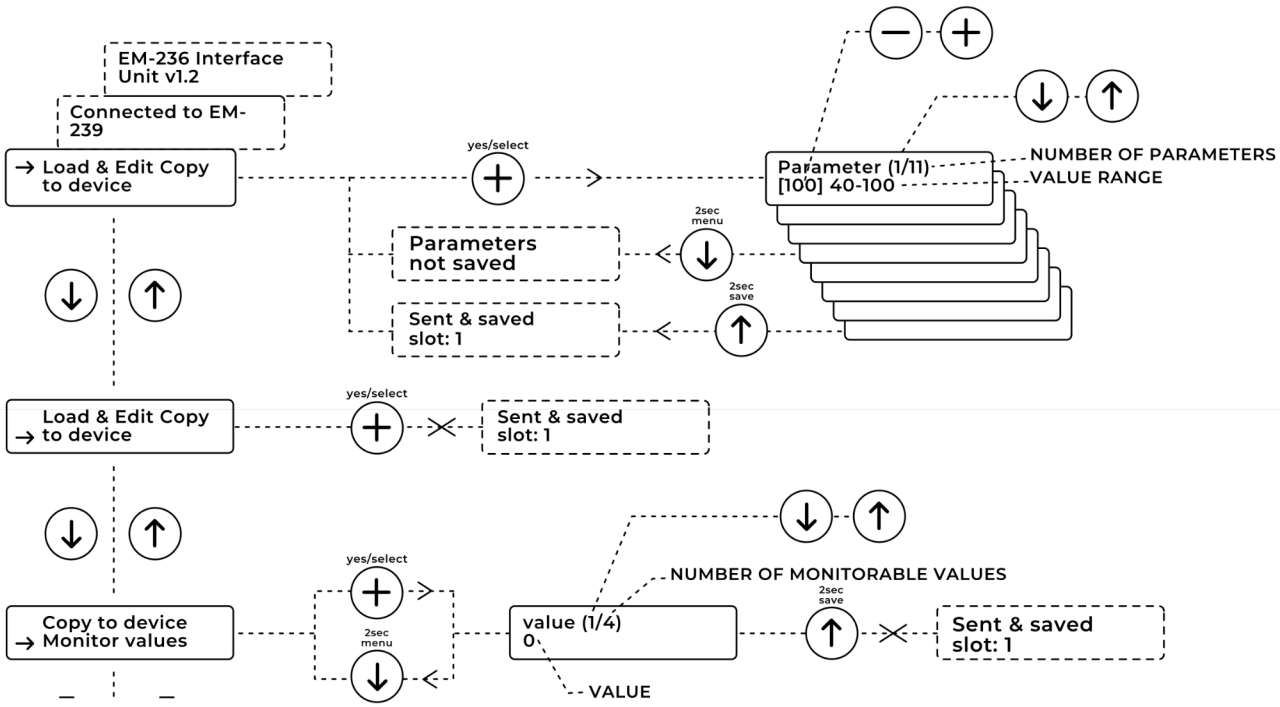
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Digital Interface Unit DIU



Connecting it to a powered driver unit



Start Up

Load & Edit

This will pick up the parameters from the Controller. 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 controller and stored in its memory.

Copy to Device

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

Monitor Values

This will enable the user to monitor various dynamic values during the use of the AS23.

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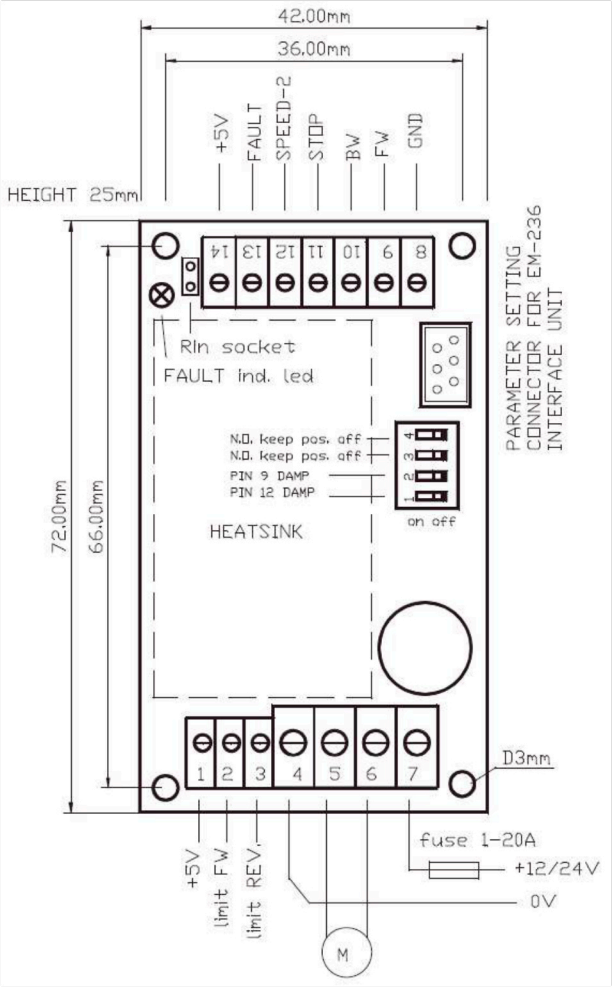
In the event of a fault, the LED located on the AS20 will flash to signify the following faults –

Power on.	One blink
Current on limit.	LED on
Current trip.	Fast blinking...
Zero-current trip.	Long blink- short pause...
Over-voltage.	4 x blink - pause...
Overheat.	Short blink - long pause...
Timeout.	3 x blink + long blink...
Fault input.	2 x short + 1x long blink...

Connections

Supply voltage must be filtered DC of 10-35V, 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 an external fuse should be added if fuse required.



Connection	Description
1	+5v DC output for Limit Switches (if required)
2	Feedback from Forward Limit Switch
3	Feedback from Reverse Limit Switch
4	0V Supply connection
5	Motor Connection (+)
6	Motor Connection (-)
7	Supply+12v or +24v DC
8	Ground (common 0v)
9	Forward Direction input Switch+5v from 14
10	Backward Direction input Switch+5v from 14
11	Stop Input. Switch+5v to pin 11 for stop input command
12	Speed 2 select input Switch+5v from 14
13	Fault Output, +5v drops to 0v relative to Ground when a fault occurs
14	+5v DC supply for switched inputs

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View AS20 Current Limiter 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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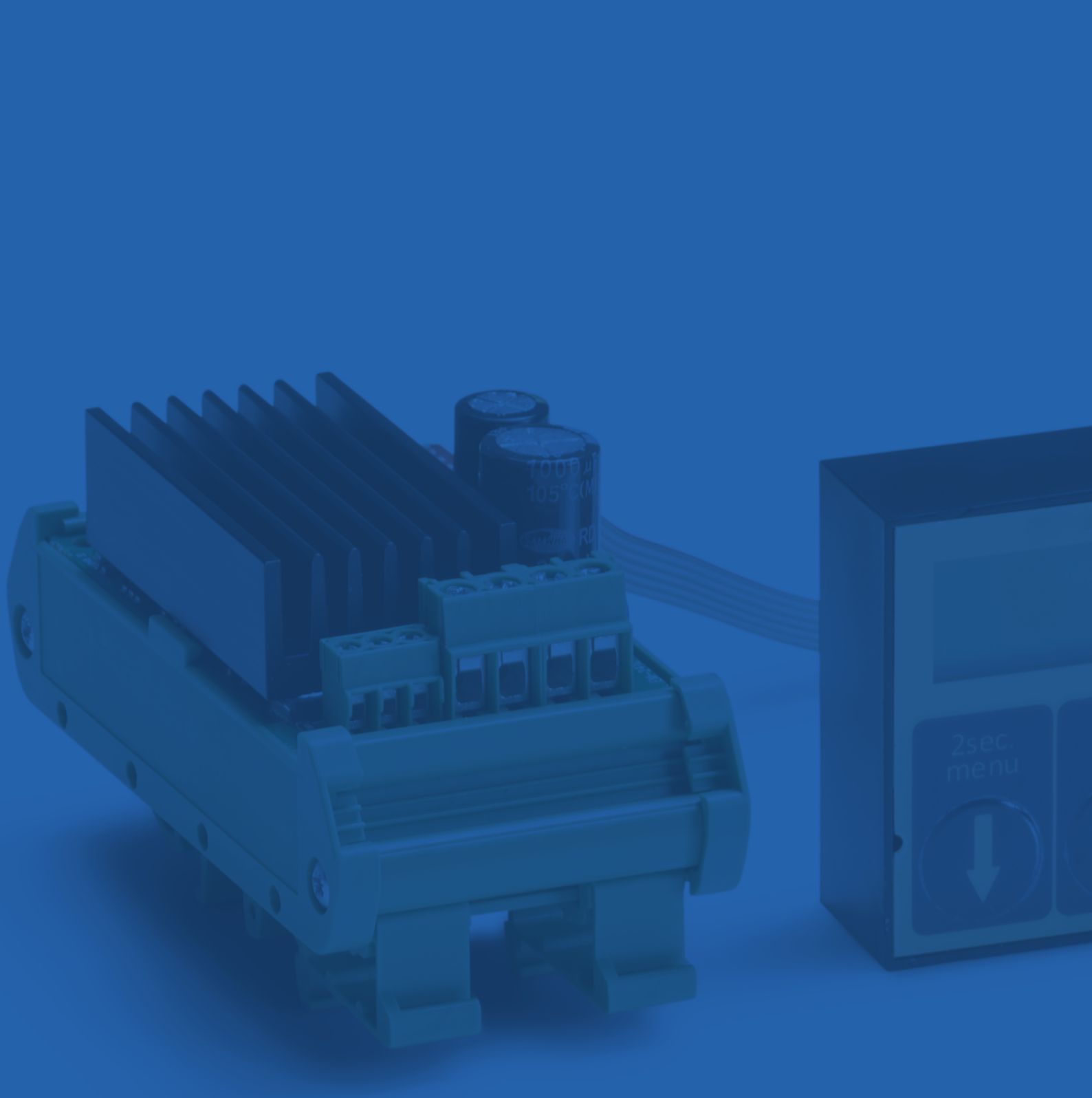
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