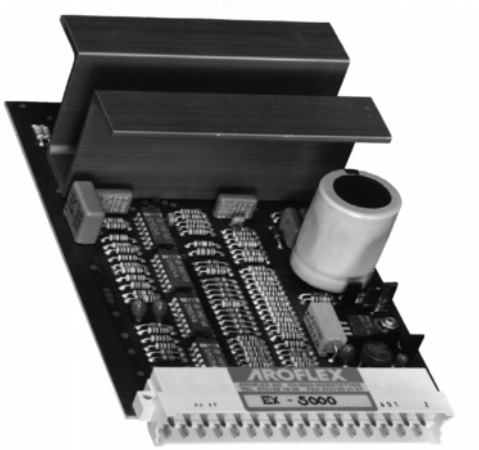
Description

- suitable for solenoids with 24VDC and a current of 0.95A max
- Europacard format 100 x 160 mm
- 32-pin male connectors type F or C according to DIN 41612 (DIN 41617 on request)
- current stabilised output
- adjustable dither to control the valve hysteresis
- limitation of min- and max-current
- adjustable ramp function
- acceleration starting from minimum-current (I_{min})



The current stabilising Europacard EX controls the DC-solenoids of analogue valves (proportional valves) supplying a constant current, independent of coil temperature and resistance.

The current controller is combined with a ramp generator to obtain an adjustable and smooth acceleration and deceleration of any load.

Acceleration and deceleration can be individually adjusted for both outputs.

Technical data

Power supply			26 V AC ± 10 % (24 VDC)
Power			40 VA
Min-current (I_{min})		adjustable	0 - 500 mA
Max-current (I_{max})		adjustable	50 - 950 mA
Output voltage			24 V (open circuit 40 V)
Ramp rate		adjustable	1 : 60
Load resistance			≥ 16 Ohm
Dither:	frequency	adjustable	70 - 225 Hz
	pulse width		30 %
	amplitude	adjustable	0 - 150 mA pp
Ambient temperature			0 - 45° C
Weight			approx. 250 gr

The EX-Europacards cannot control two outputs at the same time. Only one input should be on at any one time. When both inputs are active the first switched on of the two signals is selected and the other input is in effect cancelled. The resistance of the remote current control potentiometers should be 10 kΩ and the total load-resistance must not be lower than 1 kΩ (maximum 7 external potentiometers with 3 potentiometers internal).

Ramp function

EX-Europacard provides a smooth adjustable, change in output current, on sudden changes in input signal. A channel blocking circuit is incorporated to ensure that the down ramp is completed for one output before the up ramp on the other output can start.

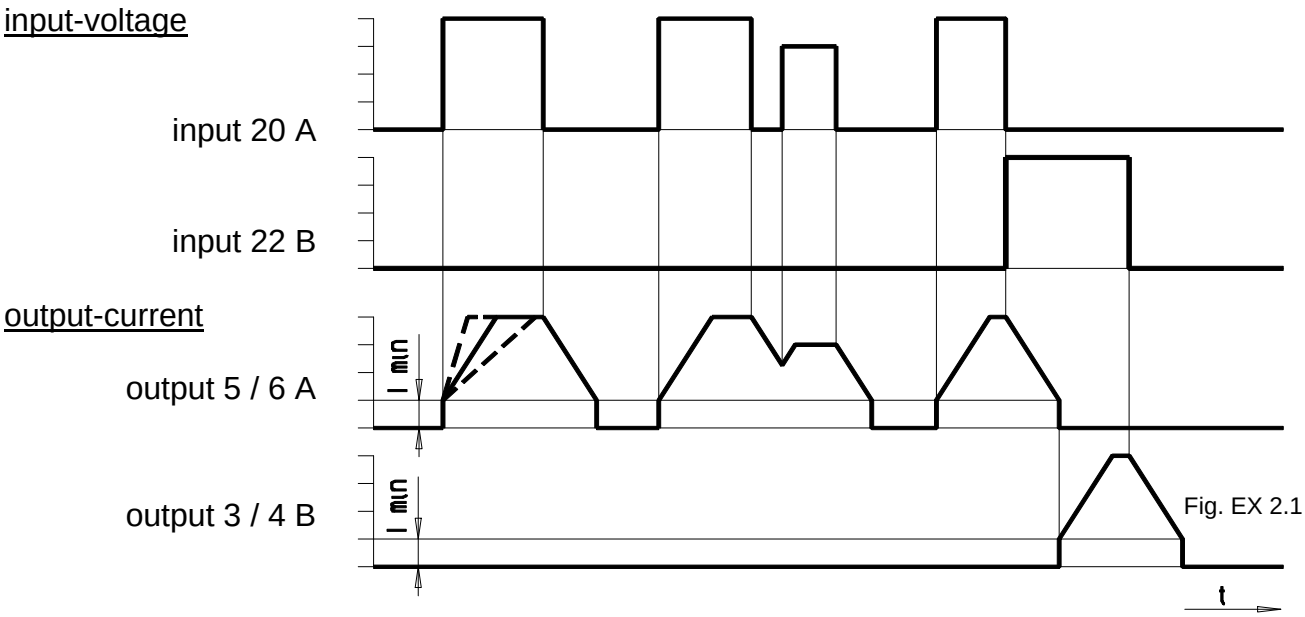


Fig. EX 2.1

Input from external source

The input from external source has to be potential free to the supply voltage. The input voltage has to be within the range as shown in the diagram below.

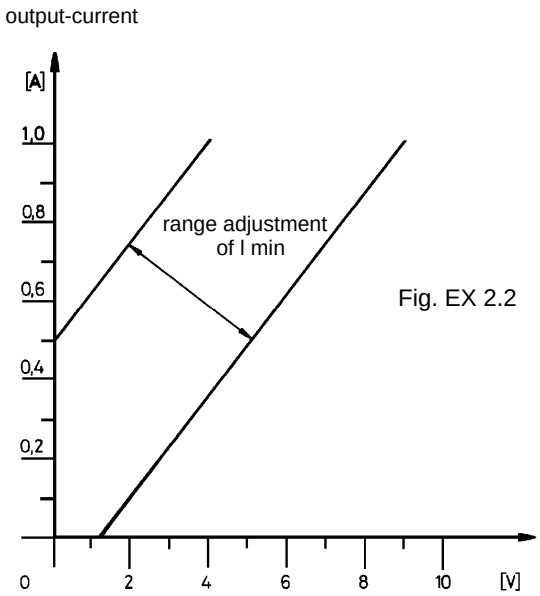


Fig. EX 2.2

NOTE: The internal current limiter (I_{max}) is inoperative with external input signal. (The I_{max} trimmer only affects the supply voltage (8) to the remote potentiometers).

Block diagram

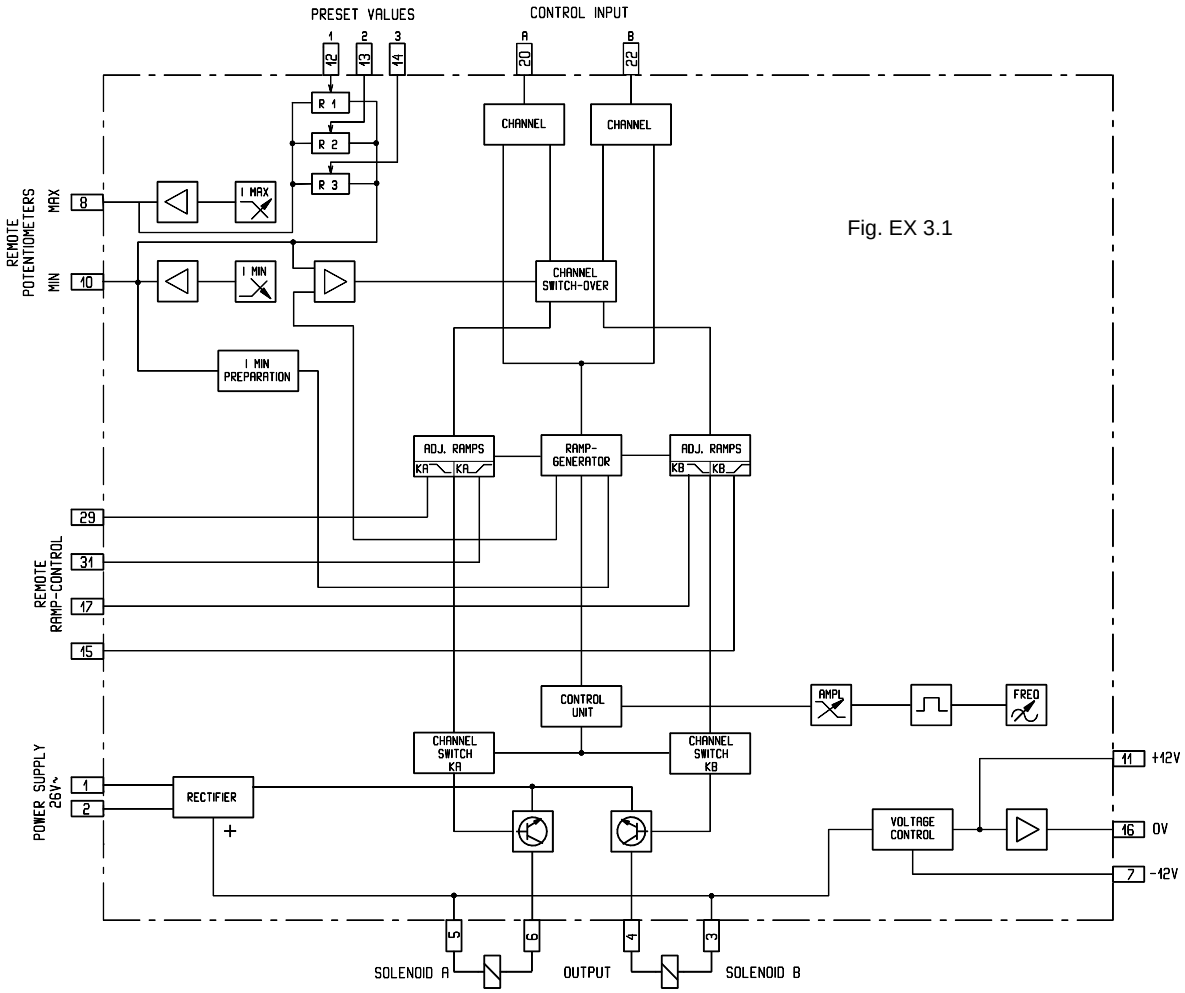


Fig. EX 3.1

Unit dimensions

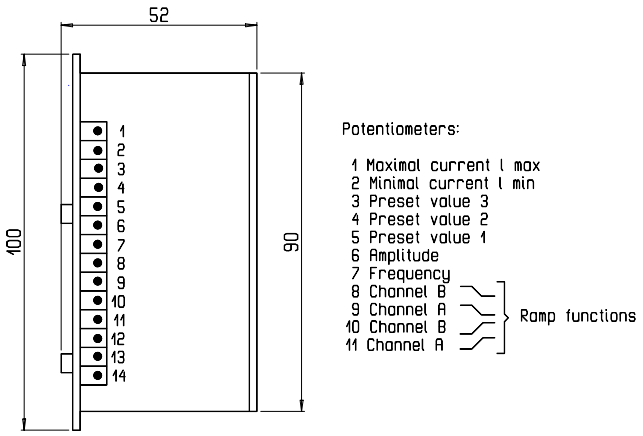


Fig. EX 3.2

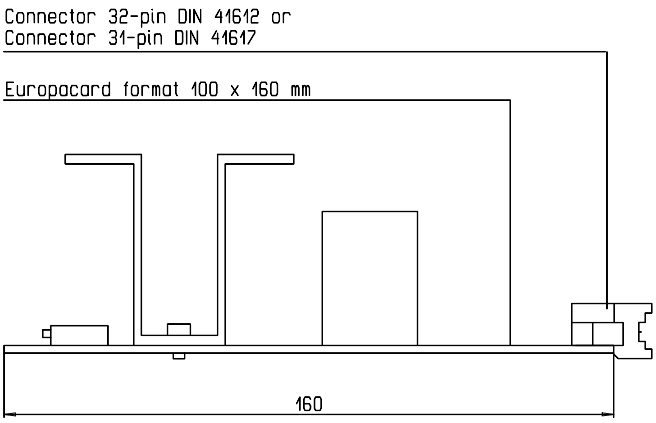


Fig. EX 3.3

Connection diagram

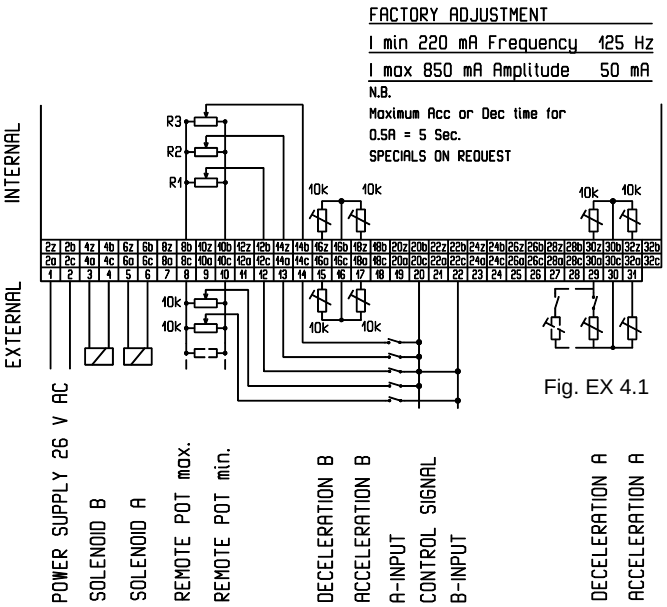


Fig. EX 4.1

DIN 41612 C	DIN 41612 F	DIN 41617	Designation
2a	2z	1	power supply 26 V ~
2c	2b	2	
4a	4z	3	solenoid B
4c	4b	4	
6a	6z	5	solenoid A
6c	6b	6	
8a	8z	7	- 12V
8c	8b	8	remote potentiometer max
10a	10z	9	
10c	10b	10	remote potentiometer min
12a	12z	11	+ 12V
12c	12b	12	internal potentiometer 1
14a	14z	13	internal potentiometer 2
14c	14b	14	internal potentiometer 3
16a	16z	15	deceleration B
16c	16b	16	2. connection pot.meter 15/17 (0V)
18a	18z	17	acceleration B
18c	18b	18	
20a	20z	19	
20c	20b	20	input A
22a	22z	21	
22c	22b	22	input B
24a	24z	23	input voltage ground*
24c	24b	24	input voltage +/-*
26a	26z	25	ramp potentiometer A/B*
26c	26b	26	
28a	28z	27	power input A*
28c	28b	28	power input B*
30a	30z	29	deceleration A
30c	30b	30	2. connection pot.meter 29/30 (0V)
32a	32z	31	acceleration A
32c	32b		*special models

Ordering code

EX-5000 - * * - S*

<u>Standard model</u>
Power supply 26 V ~
Ramp internal separately adjustable
Ramp time 80 ms - 6 sec, at 500 mA change of current
Connector 31-pin DIN 41617

<u>Special model</u>

Ramp external separately adjustable	1
Ramps with one potentiometer for all functions internal	2
Ramps with one potentiometer for all functions external	3
Bi-polar voltage control +/- V	4
Current control 0 - 20 mA	5
Special short ramp time 2,5 - 750 ms	6
Special long ramp time 3 sec. - 100 sec.	7
Connector 32-pin DIN 41612 type C (a+c provided)	C
Connector 32-pin DIN 41612 type F (z+b provided)	F
Special model (e.g. 24 VDC power supply = S24VDC)	S*

<u>Example to order a special model</u>
Ramp external separately adjustable
Bi-polar voltage control
Connector 32-pin DIN 41612 type F

→ **EX-5000 - 1 4 - F**