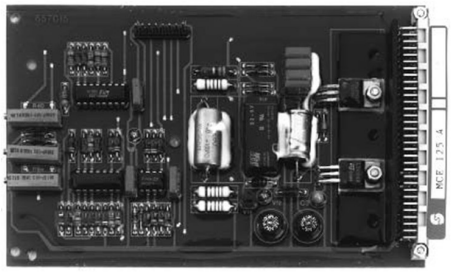
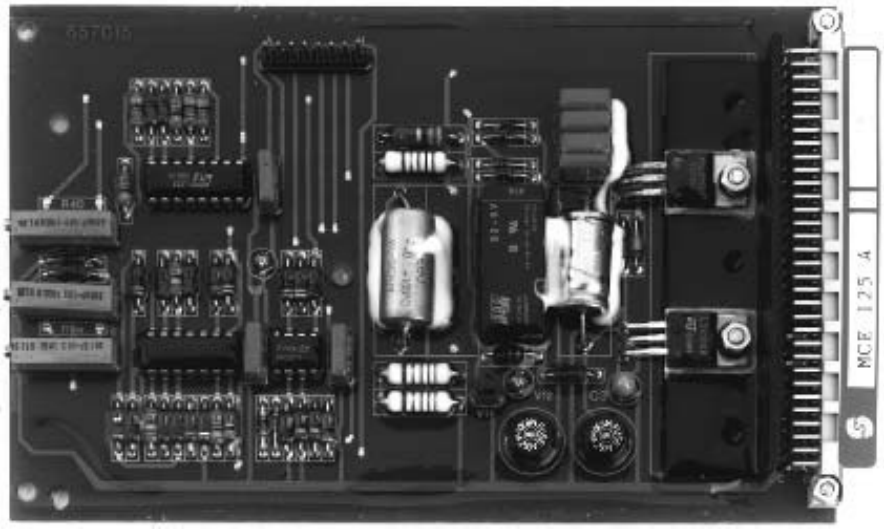


SAUER-DANFOSS MCE125A Ramp Card Amplifier User Guide

MCE125A Ramp Card Amplifier
Technical Information



Contents

Overview

DESCRIPTION

The Sauer-Danfoss MCE125A Ramp Card Amplifier provides a time-delayed control for MCV104A, MCV105A or MCV111B Electrical Displacement Controls (EDC) for hydrostatic transmissions. The adjustable ramptime is the same for up and down. The Amplifier operates uni- or bidirectionally.

FEATURES

- Proportional driving of an EDC with a potentiometer.
- Adjustable output current.
- Adjustable ramptime (0 – 8 seconds).
- ON/OFF switching of the delay time possible.
- Operates uni- or bidirectionally.
- Simple adjustments.
- 12 V DC or 24 V DC supply voltage.
- Reverse polarity and short circuit protected.
- Withstands vibration and shock.

ORDERING INFORMATION

Controller	Supply voltage [V DC]	Ramp time [seconds]	Id. No.
MCE125A1001	12 or 24	0 – 8	662338
MCE125A1002	12 or 24	0 – 20	502539

TECHNICAL DATA

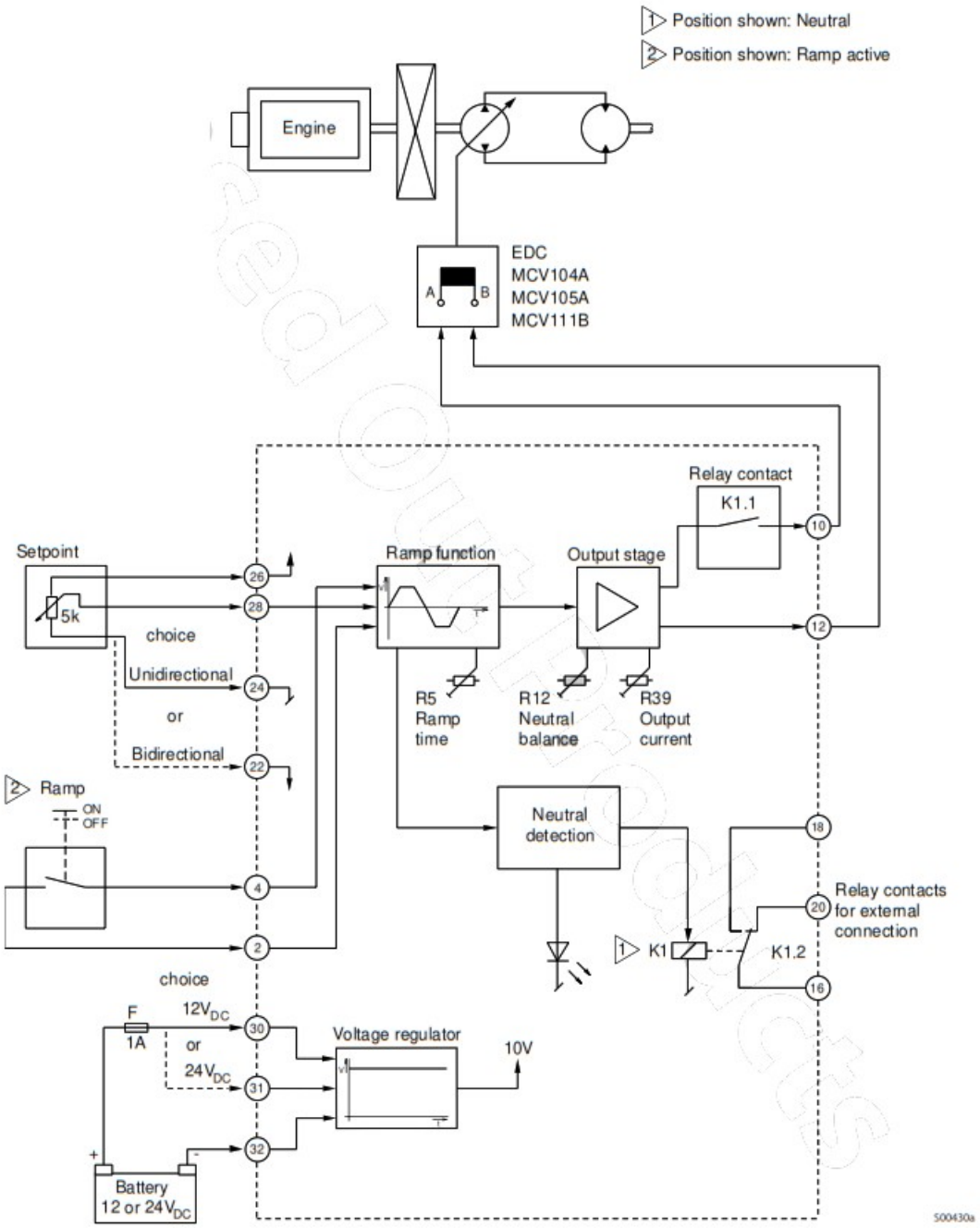
Supply voltage: 12 V DC or 24 V DC
Ripple: ≤ 20 %
Power load: 3,6 W or 7,2 W
Setpoint: External potentiometer 5 kΩ ± 10 %, ≥ 1 W

EDC ADJUSTMENT

Output current range: 40 mA – 150 mA (at 23 Ω)
Adjustable ramptime: 0 – 8 seconds (Up or Down)

Block Diagram

BLOCK DIAGRAM



Theory of Operation

THEORY OF OPERATION

General

The MCE125A Ramp Card Amplifier can be powered with 12 V DC (PIN 30) or 24 V DC (PIN 31). Both inputs are protected by 680 mA fuses.

The external fuse should be 480 mA.

The external setpoint potentiometer should be 5 kΩ ± 10 %, ≥ 1W. The potentiometer will be supplied by an internally generated stabilized voltage. As shown in the connection diagram, it is possible to work with the ramp card in uni- or bidirectional mode.

Two way contacts, open or closed depending on neutral position, are available for such things as neutral start. The ramptime is adjustable with the potentiometer R5 over 0 –

8 seconds. The neutral adjustment of the output current is adjustable with R12 and the maximum output current with R39.

Unidirectional Operation

The setpoint potentiometer is connected to pins 24, 26 and 28 (see figures 1 and 2).

Bidirectional Operation

The setpoint potentiometer is connected to pins 22, 26 and 28 (see figures 3 and 4). In the center position of the potentiometer (neutral position) the value of the output current is <± 5 mA. In this range a neutral position sensor switches off to the EDC and defines a true neutral position.

OPERATION DIAGRAMS

Figure 1: unidirectional

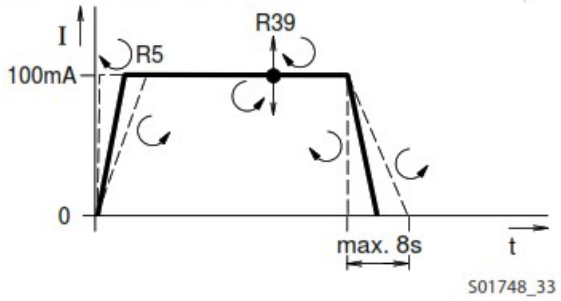


Figure 2: unidirectional

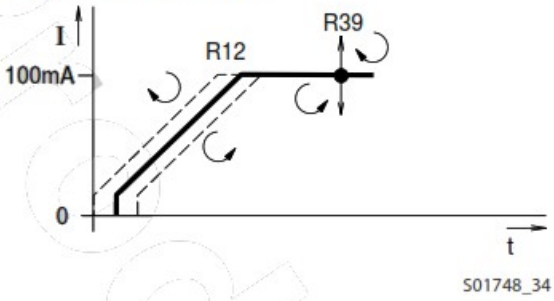


Figure 3: bidirectional

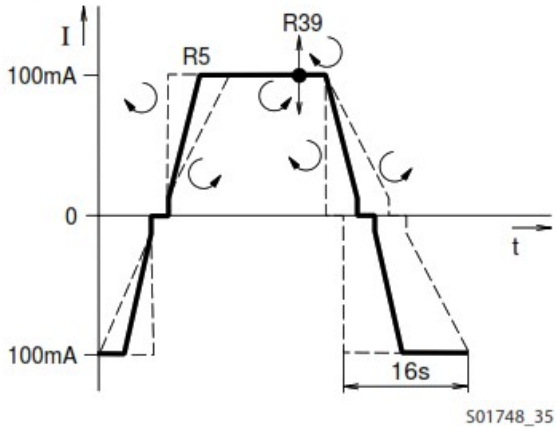
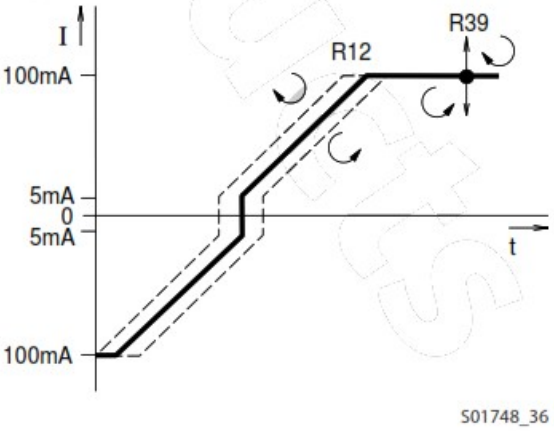
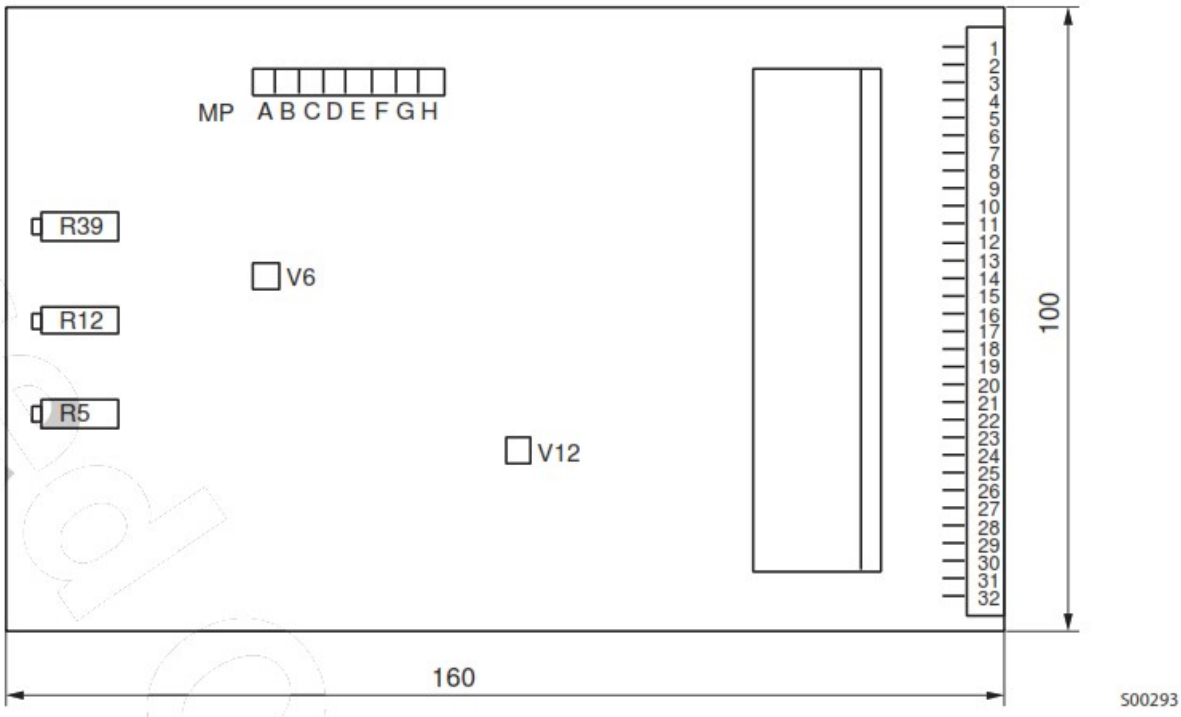


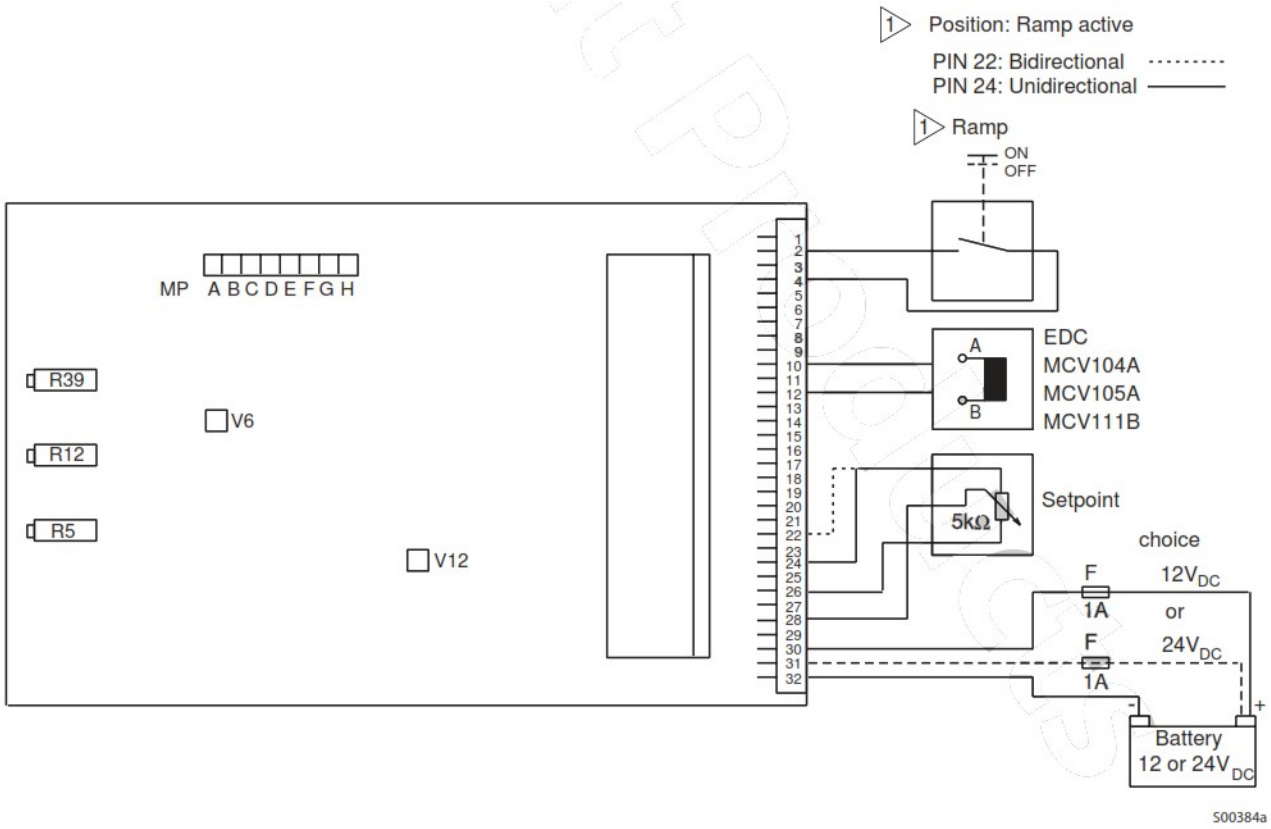
Figure 4: bidirectional



Dimensions and Connection Diagram



CONNECTION DIAGRAM



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Documents / Resources

	SAUER-DANFOSS MCE125A Ramp Card Amplifier [pdf] User Guide MCE125A Ramp Card Amplifier, MCE125A, Ramp Card Amplifier, Card Amplifier, Amplifier

References

- Danfoss Power Solutions – Explore our power solutions | Danfoss
- User Manual