



**Instructions for use**

**For proportional valves with code**

XD.3.A...	(SE.3.AN209.16...)
XQ3...	( " )
XQP3...	( " )
XD.5.A...	(SE.5.AN209.25...)

**Power electric supply**

24 VDC nominal  
 23÷32 VDC rectified and stabilized (40W max.)  
**SE.3.AN209.16..** (30W max.)  
**SE.5.AN209.25..** (40W max.)

If the valve carries a 24V magnet, a supply voltage of about 30 ÷ 35V is necessary.

**Reference voltage**

+10V 20mA stabilized (c22)

**Available inputs**

0 ÷ +10V (input impedance 100KΩ) a30  
 0 ÷ +5V (input impedance 50KΩ) a28  
 0 ÷ 20mA (input impedance 100Ω) a26  
 4 ÷ 20mA (input impedance 100Ω) a24  
 free input (input sensitivity 10KΩ/V) a32  
 with calibration by choice, modifiable by replacing the resistor R1000 on the card (standard value: R1000 = 100KΩ).

**Card enable**

Usually the card is not enable.  
 For enabling it, apply in a2 a voltage between 2.5 and 24 VDC.  
 Example: connect c22 with a2

**Ramp exclusion**

Ramps are usually on.  
 In order to disable them apply in a4 a voltage between 2.5 and 24 VDC. Example: connect c22 with a4

**Calibration procedure**

Connect the card according to the scheme (see connections diagram). Set to zero the reference potentiometer. Before applying the voltage, make sure that the hydraulic system does not move suddenly causing damages to people or things. Apply the voltage to the card: the green led will start blinking. Enable the card and disconnect the ramps ("FAIL SAFE" led off and "RAMP OFF" led on).

**Minimum current regulation**

Put the reference signal (a 24 / a26 / a28 / a30) on 3÷5% of the max. value. Turn the minimum current trimmer clockwise (P min) until the actuator moves; then turn the trimmer counterclockwise until the actuator stops.

**Maximum current regulation.**

Put the reference signal (a 24 / a26 / a28 / a30) on the max. (positive) value and turn the gain trimmer (P max) slowly, until the max. speed requested is reached. Now the speed can be varied by changing the reference signal.

**Ramp time calibration**

Connect the ramps ("RAMP OFF" led off). The ramp time is the time which is necessary for going from the minimum current value to the max. current value and vice versa. The time can be set from a minimum value of 70 ms (ramp excluded) up to a maximum value of 8 sec. (valve max. opening) whether downwards or upwards. By turning the trimmers clockwise the ramp time increases.

**Notes**

The ramp down time influences the lock position of the actuator. By setting to zero the reference signal, the actuator keeps moving until the ramp time set (in a downward direction) has passed. For this reason it is necessary to carry out the adjustment carefully and properly.  
 The card block (FAIL SAFE) is automatically reset after that the error has been eliminated.

**Solenoid current test point**

On the frontal card panel: 1V = 1A ±5%

**Command signal test point**

On the frontal card panel: 0 - 10V according to the command signal

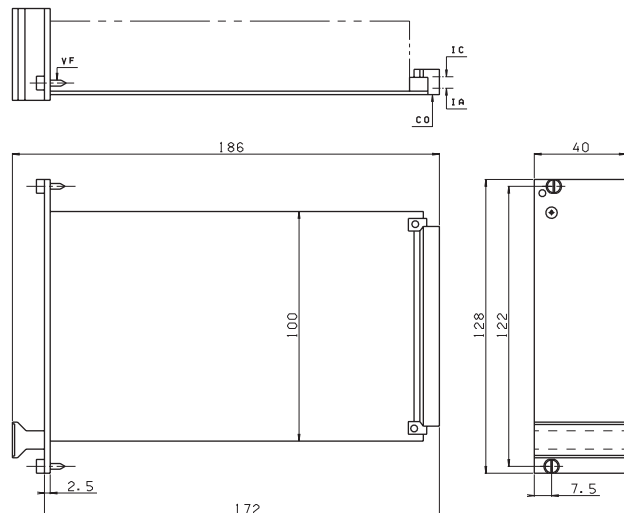
**Ambient temperature range**

0° ÷ 70°C

**Electric connections**

The connections concerning the reference potentiometers must be carried out with a wire having a section of ≥0.75 mm². It is advised to use a screened cable with earth braid.

**OVERALL DIMENSIONS**



- VF** Fixing screws M2.5x13
- CO** Connector DIN 41612 D32
- Ordering code: X30770000**
- IC** Connector C
- IA** Connector A

**Weight** Kg. 0,25