

C4A3000

Control panel features a 4

Commands a proportional valve and 8 valve on / off keys to manage proportionally 4 functions not contemporaneous a hydraulic spool valve

Characteristics electrical

POWER: 12V or 24V
 BURDEN:50mA @ 12V
 N ° OF PROPORTIONAL OUTPUT.....1
 N ° OF OUTPUT ON / OFF.....8
 CURRENT ADJUSTMENT FOR
 PROPORTIONAL SOLENOID.....0.1A to 2.0A
 MAXIMUM CURRENT ON LOADS ON / OFF2A
 OUTPUT SHORT CIRCUIT PROTECTED FROM
 N ° INPUT PROPORTIONAL.....4
 N ° OF DIGITAL INPUTS (ON / OFF).....2
 TEMPERATURE RANGE:.....-25 ° C to 85 ° C
 TERMINATION: stranded cable L = 3m
 MAXIMUM DIMENSIONS (4 functions).....280x100mm
 DEGREE OF PROTECTION.....IP50
 NUMBER OF DIFFERENT FUNCTIONS ON REQUEST
 DIFFERENT MODES ON REQUEST



DESCRIPTION

The console port 4 **C4A3000** finger-proportional joystick, a power switch, an emergency stop a signal lamp of active circuit; connected to a distributor ON / OFF, and to a proportional valve (see figure to the next page) allows four movements, not simultaneous, with proportional control that is adjustable in speed. You can set for each movement its maximum speed separately from the other movements. You can power the equipment or from the distributor or from the console. The sides of the console will act as mounting brackets also allowing the fixed installation. The degree of protection is IP50, you can request to have the IP65 version. The connection cable to the distributor is the default state of length 4.5m but you can agree a different length. The connection cable to the battery power has been predefined length of 3m but you can agree a different length. The system will be supplied pre-calibrated in the speed of movement. If you want to change some values, you can access the inside working on special trimmers (see "SETTINGS" last page). It will be possible to have pre-established calibration through diversification, to be agreed, ordering codes.

OPERATION

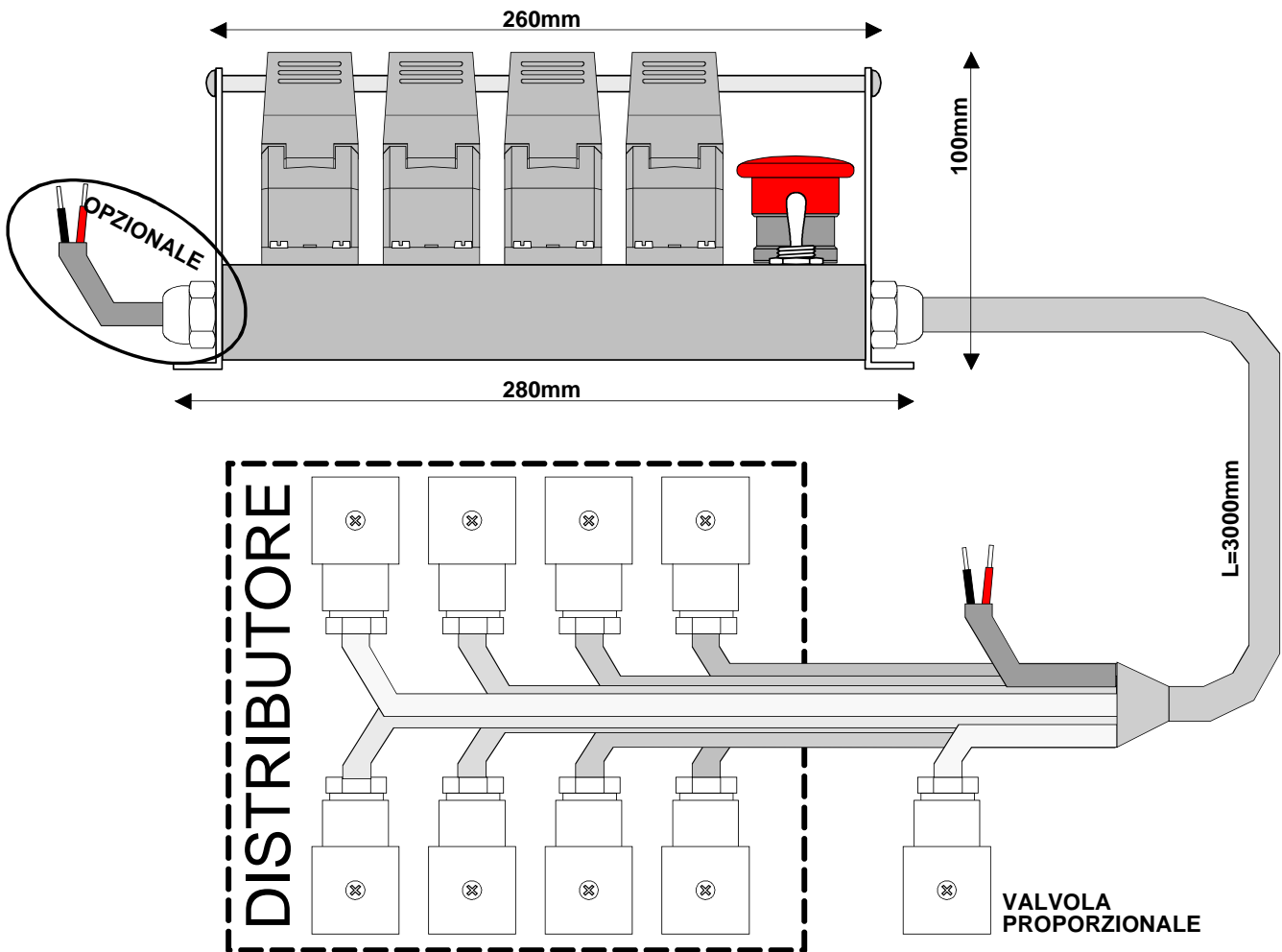
The first joystick which is operated takes control of the proportional valve using the maximum and minimum values of current limit settings for that movement and simultaneously feeding the output to the ON / OFF valve appropriate depending on the direction of actuation of the joystick, every other joystick that were to be operated will have no effect until the first will not be reported in the rest position.

CONNECTIONS

The connections must be made according to the scheme described below.

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OPERATION

After connecting the adapter to the electrical system must check its operation:

Act of power

For power plant should be lit green LED steady light which gives permission to operate the joysticks if they are operated before the lights this LED you will have an alarm and the LED will flash with the result that the functions will be blocked . Minimum current (or hours) for each channel or movement.

For each channel must be ascertained, bringing its joystick slowly out of the rest position, that the minimum achievable current (IMIN) is just enough to have the required motion for the machine. If this value is too high will snap to each output of the movement of the joystick from the rest position and the impossibility of obtaining the precision of movement commanded by the joystick. If on the contrary this value is too low will result in an excessive extension of the dead band [*] around the rest position of the joystick and consequently a reduction of the range of adjustment proportional obtainable from the joystick. The fair value of the minimum current (IMIN) is corrected using the calibration procedure given below.

Maximum current (or maximum speed of the hydraulic movement) for each channel or movement.

For each channel must be ascertained, bringing the joystick in its extreme positions, that the maximum obtainable current (IMAX) is the one that leads to the desired maximum speed / obtainable for the required movement. If this value is too low will result in an insufficient maximum attainable speed of the movement. If on the contrary this value is too high will an excessive speed or the appearance of a deadband [*] at the stroke end of the joystick with a consequent reduction in the field of proportional control joystick obtainable from the same. The fair value of the maximum current (IMAX) is corrected using the calibration procedure given below.

[*] Deadband: working area of the joystick by which the shift of its lever does not produce a variation in the speed of movement of the machine controlled by it.



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RATINGS

The current values IMIN and IMAX are adjustable separately for each joystick and, for each of them, separately for the two directions of movement. To do this, unscrew the four screws that secure the first joystick near the emergency stop. (See Figure 1) after which you must follow the following steps:

To program the minimum current of a joystick:

A-Enter the programming mode by holding down both buttons (Figure 2) inside the window while feeding the console (Figure 3).

B-The entry into programming mode is indicated by the simultaneous flashing of the two red LEDs inside.

C-Operate the joystick you want to adjust the minimum current in the direction that interests us in this situation, the joystick does not adjust proportionately but has only a constant speed that depends on the setting of the trimer close to blue LEDs. If the lever of the joystick is located in the first part of the race turns on the lowest LED to indicate that we are setting the minimum current (or opening) but if the lever is located at the stroke end LED is lit to indicate higher we are setting the maximum speed for that movement and in that direction.

D-With a screwdriver (blade 3mm max.) Adjust the trimmer taking care to keep the joystick that we are interested in the direction that we are interested in a position to face the LED light further down in a fixed way (Figure 4). We adjust the trimmer in order to have an almost imperceptible movement of the cylinder (if the console is not installed on the machine we help with an ammeter in series with the proportional valve and know its current value of opening).

E-We store the value found by pressing the button next to the two LEDs.

To set the current (or movement speed) should redo the maximum step-D, taking care to move the lever all the way to turn on the LED higher and adjust the trimmer in order to obtain the maximum speed (or IMAX) desired. Then run the E-step. For adjustments in the opposite direction or on another joystick just repeat the same steps in the other direction by moving the joystick or redo the same muoven-do another joystick.

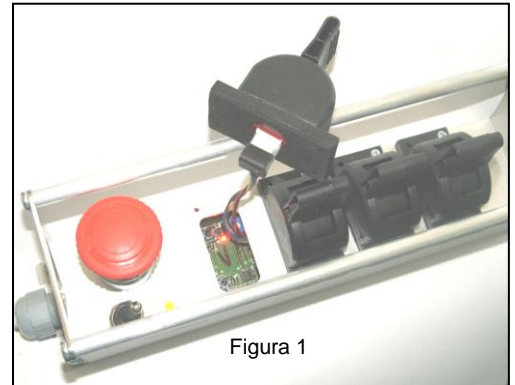


Figura 1

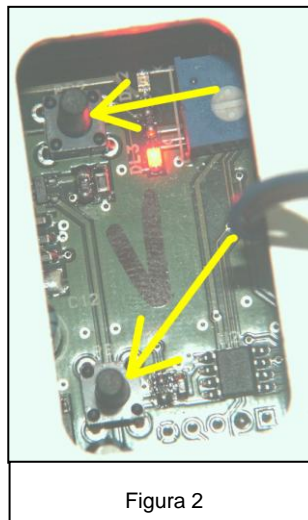


Figura 2

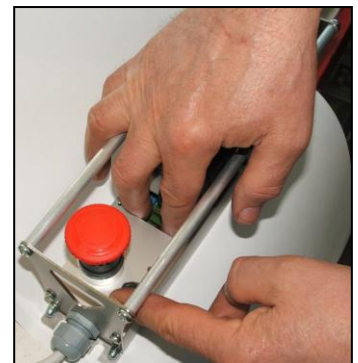


Figura 3

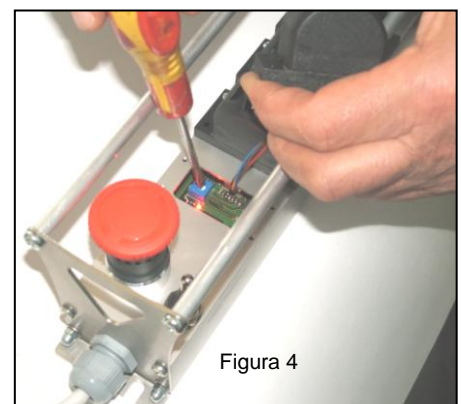


Figura 4