



Limit switch control system for LATT telescopic actuators

1 Main features

- Relay device for controlling two limit switches
- Power Supply 12-24 VDC selectable with JP1/JP2
- Stabilized power supply 12 or 24 VDC, $\pm 0,5V$
- Maximum current 4A
- Fuse incorporated and calibrated on request
- Duty Cycle 100% a 25°C
- Built-in motor brake with automatic insertion
- Automatic operation / Manual
- Automatic mode activation with JP3/JP4
- Inputs for Forward and Back buttons
- Inputs for NPN or PNP limit switches on request
- Metal casing with M4 fixing fins
- Temperature of the working environment -10°C +40°C
- Degree of protection IP30



2 Description

Relay device for the control of two limit switches; these are available as an option on LATT telescopic actuators, the module incorporates the motor brake with automatic insertion in the Stop Engine condition. Built-in fuse for power circuit protection. Inputs predisposed for the Hall type limit switch or the traditional electromechanical switch. The direction control input require a normally open electromechanical contact or an open-collector solid state device referred to GND. The electronic module is configured to operate in "Man's switch"¹ or "Automatic"² mode until the limit switch, depending on the status of the control input forward and backward direction. The electronic module is available with inputs prepared for the limit switch signal type NPN or PNP. For more details of operation, read the connection diagrams.

3 Applications

This system is suitable for a wide range of equipment and tools: small automatic machines, general automatisms, packaging industry, home automation, agricultural automation, transport vehicles, sweepers, etc. Particularly suitable for applications that require minimal vibration, low noise and low cost. This system is particularly suitable for the control of DC motors with brushes applied to the control of linear motion, for example linear actuators with trapezoidal screw and telescopic linear actuators, adapting to the main configurations. Also applicable to small planetary gearmotors and small worm gearmotors.

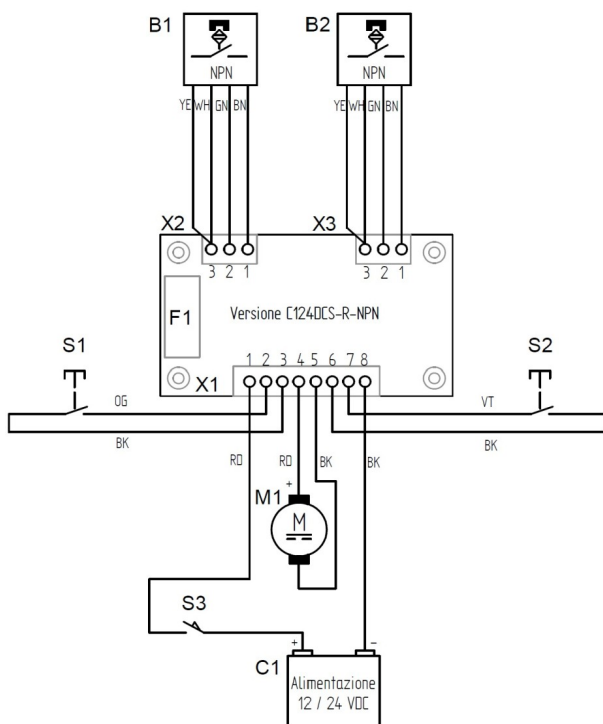
- 1 Man's switch: the actuator advances only if the forward and backward buttons remain pressed
- 2 Automatic: pressing only once the forward and backward buttons the actuator advances until the respective limit switch



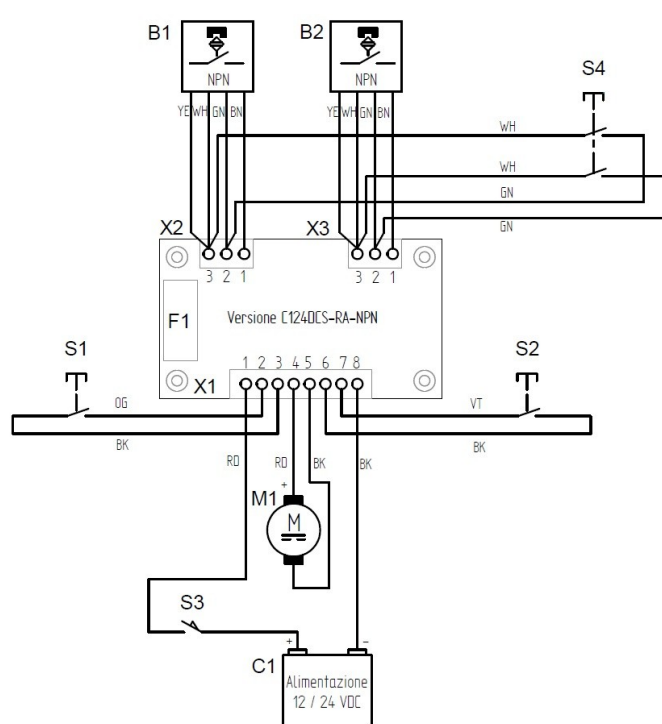
WARNING: this control device is not suitable for “Safety-critical system” applications in which the malfunction of this device would cause a significant increase in the safety risk for the people and/or the environment in question, causing loss of life, serious injury or serious environmental damage. The user who decides to use this device in “Safety-critical system” applications does so at his own risk.

4 Connection schemes

MAN’S SWITCH OPERATION



AUTOMATIC OPERATION



Sensor cable colours B1-B2
YE = yellow WH = white GN = green BN = brown
For PNP version do not connect yellow sensore cable

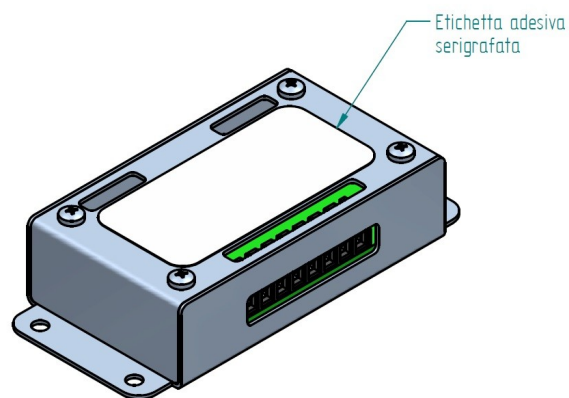
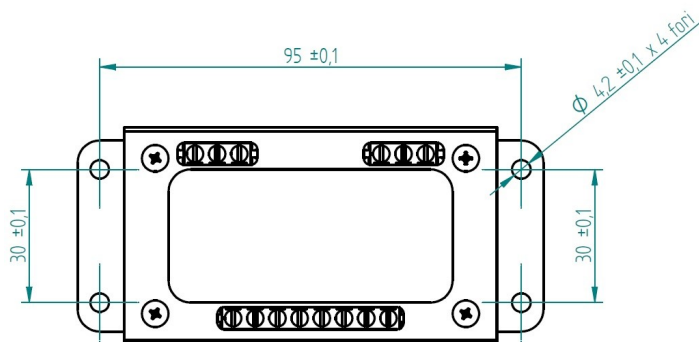
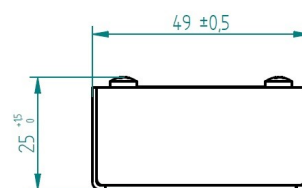
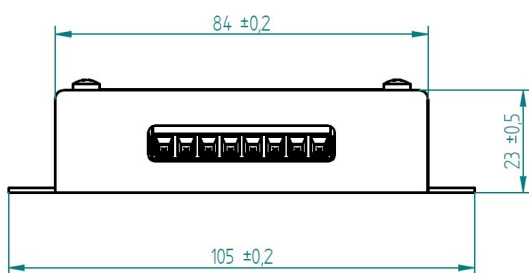
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WARNING: Adjust the B1 and B2 limit switch sensors to prevent the actuator from plugging to the mechanical limit switch. The electric limit switch must intervene a few millimetres before the mechanical limit switch.

NOTE: if after the electrical connection the actuator should move in the opposite direction to the logic of operation of the control, it is sufficient to exchange the position of the RD and BK wires of the Engine M1

5 Mechanical specifications (units in mm)



On request version “open frame” or with hook for DIN 35 rail

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