

For your safety

Driver FRM limit switches comply with the following Directives and Norms:

2006/42/CE	Machine Directive
2006/95/CE	Low Voltage Directive
2002/95/CE	RoHS Directive
1907/2006	REACH
EN 60947-1	Low-voltage switchgears and control gears
EN 60947-5-1	Control circuit devices
EN 60204-1	Safety of machinery
EN 60529	Protection degrees
UL 508	Industrial control equipment



Driver FRM limit switches are guaranteed by our EC Certificate of Conformity, available upon request, where it is declared that such product has been created by Ravioli in accordance to defined and acknowledged Safety Regulations, and in compliance with the Quality standards stated in our ISO 9001:2008 Quality System Certificate.

Respect for people and environment

Ravioli is focusing its activity on products in the respect of people, following the standards which are defined in our Code of Ethic Behaviour. Such products have been studied in order to improve the working safety for people who use them. Moreover, Ravioli products are free from any harmful substances, in the respect of environment.

Installation and maintenance requirements

INSTALLATION AND WIRING

The limit switch must be installed by qualified personnel, in compliance with the current safety norms. Before wiring, the machine power supply must compulsorily be interrupted. Correct installation calls for working temperatures from -20°C to +60°C (optionally from -40°C to +60°C). The limit switch must not be used in any areas which turn out to be potentially explosive, corrosive or with high sodium chloride contents. Acid, oil and solvent may cause the device deterioration; the limit switch is lubricated "for life", therefore it is recommended not to use either oil or fat to lubricate any part of it. The wiring installation must be achieved and tested according to the current norms, in conformity with the electrical wiring diagram of the machine. In case the limit switch is supplied in a version with internal wiring, do not modify any of them, unless warranty validity. After the installation, it is compulsory to check if both the limit switch and the machine it controls work correctly.

Operations for limit switch installation

- Remove the cover by loosening the retaining screws
- Connect the limit switch shaft to the external drive element by using a flexible joint, the male connection or the cog wheels (page 8), in order to avoid any misalignment between the shafts
- Fix firmly the limit switch by using the baseplates or the optional flange (page 8) to prevent it from anomalous vibrations.

Wiring operations:

- introduce a multipolar cable into the special cable entry
- strip the cable for electrical connection to the microswitches
- tape the initial part of the cable
- lock the cable in the cable entry
- carry out the electrical connections by tightening the microswitch screws to max torque of 0,5 Nm.
- in case a potentiometer as well as any other sensors are present, introduce another multipolar cable in the second cable entry, tape and lock the cable in the gland; then, connect properly the wires to their preset clamps (max torque: 0,5 Nm.)
- set the position of the cams by adjusting the regulation screws (page 3); in case of great displacements, the whole group can be loosened by operating on the central screw and moving manually the cams. After this approximate regulation, tighten the central screw again and operate on the lateral screws to obtain a fine regulation
- regulate your optional potentiometer or other sensor according to the specific instructions which are enclosed to the product that you can ask us directly for.

MAINTENANCE

Maintenance operations:

- check if both the screws on the cover and the inner clamps are correctly tightened
- check if the multipolar cable is secured in the cable entry
- check the wiring conditions
- check the integrity of the gasket inside the cover
- check that the drive system is functioning correctly and that the shafts are in alignment
- check that the limit switch is safely assembled
- check the integrity of the case

Ravioli S.p.a. declines any responsibility for damage deriving from incorrect installation or improper use of the product.