

## Operation and Maintenance Manual

### Spring pressure electromagnetic brakes

#### FMP - FMPR - ECO - ECOR - R - IP65 - Comp - Front

##### Declaration of conformity:

The product has been designed and made according to the following EU regulation.

The conformity declaration has been released on request.

The integration of the product by the electric motor or system manufacturer requires compliance with the provisions of the applicable EU directives.

##### List of directives and standards complied with:

Directives:

2004/108/CE Electromagnetic Compatibility directive (EMC)

Regulations:

DIN VDE 0580 Electromagnetic Devices and components, main regulations.

NFC 79300 Electric Industrial Devices. Electromagnetic Devices for mechanical applications .

##### Content

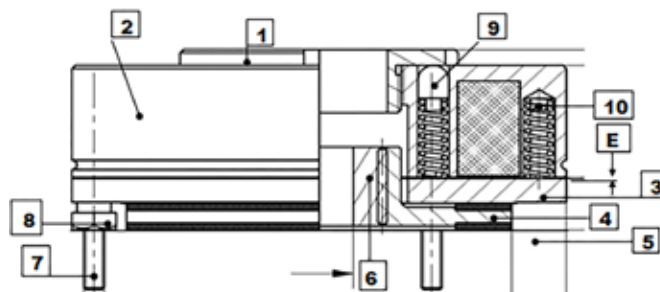
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### 1 Operating principle

The products of the FMP / FMPR / ECO / ECOR / IP65FMP / R series are electromagnetic spring-applied safety brakes which work when there is no current on the circuit which the brakes are connected; in this situation the internal (helical) springs push the plate against the "disc" (brake disk) which transmits the braking torque to the power transmission (shaft), connected by a grooved hub.

The condition of "NOT-operation" (STAND-BY) of the brakes mentioned above is obtained through the magnetic force of the coil, supplied by the electric circuit in direct current, which attracts the plate towards the brake-coil the with the elimination of the force generated by the internal springs.

Drawing 1



1	Ring	6	Hub
2	Coil	7	Fixing screw
3	Anchor	8	Adjusting screw
4	Disc brake	9	Spring pusher
5	Flange (optional)	10	Spring



Symbol of designation and actions that could damage the brake



Symbol of designation and actions that could be dangerous for personal safety

## 2 Precautions and usage restrictions

### 2.1 Use limitations



This brake is fit to work on dry environment .



The friction material hasn't been in contact with oil,grease and abrasive dust .



The warranty will not cover if the maximum speed allowed has been exceeded .



The customer must take care to don't modify the air gap set by the producer. This to allows the brake to work fine.



The brake made to work in an environment with maximum teperature 40° C (Insulation class protection 155°C). Maximum temperature for continuos usage is 100°C.

### 2.2 Precautions and safety measures



During the maintenance to check that the machine is locked by the switched off brake,and that there isn't an unfore-casted ignition.The maintenance must be performed only by authorized personnel with this manual



Changes made to the brake without the authorization of the Teleco freni srl, the use deviating from the instructions descibed by Teleco freni srl, they will invalidate the warranty and Teleco freni srl will no longer be responsible in any way for compliance.

## 3 Installation

### 3.1 Transport and storage



This packaging guarantees the integrity of the product for shipments by truck. In case you need shipping by sea or fly please contact us .

### 3.2 Care



Don't hit the brake to avoid to damage its performance.



Don't lift the brake by the electrical cable.

### 3.3 Installation

#### Reference Drawing 1

- In the beginning to insert on the shaft the hub (part. 6) and after the disch brake (part. 4) on the hub.
- Lock the brake on the motor or flange (part. 5) by fixing screws (part. 7) to fasten them with right torque (...Nm - see that on the datasheet) by torque wrench.
- Verify by feeler gauge the “E” nearby the adjusting screws.

## 4 Maintenance

### 4.1 Adjusting airgap “E”

Reference Drawing 1



Check the airgap after all maintenance.

- Unfasten by 1 round the fixing screw (part. 7) and move the adjusting screws (part. 8): if you round in a direction the quote “E” will increase , on opposite direction the quote “E” will decrease.
- After fasten the fixing screws and to check again the quote “E” with a feeler gauge.
- Do this action nearby to all adjusting screws.

### 4.2 Adjusting torque of the brake

Reference Drawing 1

- To lock the brake on the motor or flange (part. 5) by fixing screws (part. 7) adjusting the fastening torque ( ... Nm - see that on the datasheet) by torque wrench.
- Insert the hub(part. 6) and by atorque wrench to check the brake torque.
- To adjust the torque to use the ring (part. 1).

## 5 Series of problems and bug fixes

Fault	Cause	Solution
The brake doesn't open	No current	Supply the brake
	Too big airgap	Check that again (see point 4.1)
	Used disc brake	Replace the disc brake and adjust the airgap
	Damaged coil	Replace the brake
	Airgap too small	Check that again (see point 4.1)
The brake doesn't lock the movement	On voltage	Check the wiring connection
	Grease on the disc brake	Replace the disc brake and adjust the airgap