# SERVO LATCHES SM45-900

## **Presentation**

The motorized locking device **SERVOLATCH SM45-900** is used in the commercial washing machines with capacity of about 10-30 kg and allows the pre-lock and the lock of the door in two different stages.

The device is the result of **METEOR**'s extensive experience achieved in other fields for example of medical sterilizers.

During the pre-lock phase it is possible to open the door even from inside the washing machine drum, in accordance with the **new safety standards**.

During the closing phase, it is sufficient to push the door against the machine so the shank on the door is caught in the jaws driver, activating the door detection micro switch.

Once the wash cycle has been selected the **SERVOLATCH SM45-900** holds the shank with three jaws.

By means of a balancer, activated through a DC motor, the **SM45-900** drags the jaws driver locking the door and pulling it against the gasket of the washing machine to locked position up to the end of the cycle. Once the cycle is finished the jaws driver returns to the pre-close position and it is possible to open the door again.

All devices are equipped with an **Emergency Release System** which disengages the inner mechanical components in case of power outage, allowing the door opening. The re-engagement of the mechanical components is automatic with motor rotation in a no load cycle.



## **Technical specifications**

#### A Structure

Compact structure completely realized in Die Cast aluminium and nickel plated steel for operating temperatures of over 120°C.

## **B** Gear Motor

Data*	DC Std Motor	DC Reinforced Motor
Operating Temperature	From -20°/60°C	From -20°/60°C
Power supply	12V - 24V	12V - 24V
No load current absorbtion	< 60mA – <50mA	< 60mA – <50mA
Current absorbtion with load	130mA -70mA	130mA -70mA
Rotation speed	5rpm	5rpm
Maximum torque	100 cNm	100 cNm
Wheels (gear box)	synterized	steel

\* at Ambient Nominal Temperature

#### C Switches

Switches	3X - sub miniatures type
Ambient Operating Temperature	-40°C to 120°C
Voltage	250V – 125V
Current (Nominal)	0,1 A

## D Mechanical data

Total travel of the jaws driver	6,4 ± 0,3 mm
Jaws	n. 3 – sp.3 mm
Cycle time	5" opening - 5" closing +/- 1"
Pre closing force	35/55N
Maximum closing force	350N
Emergency release force	< 150N
Connector (Lumberg 3521-06-K00)	RAST 2,5 – 6 poles

## E Other features

Jaws Driver with safety system inserted against accidental activation.

Auto centering closing shank allowed by spherical base.

## F Reliability

DC Standard Motor	10.000 operating cycles*
DC Reinforced Motor	50.000 operating cycles*

\*<u>Test conditions:</u> 1 cycle made by a complete closing and opening phase at the maximum load of the DC motor.

## G Door detection system

The door detection plunger is integrated in the latch.

## H Compatibility & interchangeability with different electronic controls

**METEOR** 's device has been designed for use on professional appliances using existing electrical and electronic components.

## Control tests

100% end of production line tests.

For commercial washing machines the Servolatch has been dimensioned according to specific requirements.



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