

# **Electrothermal Actuator for VPS-VPM-VPT valves**

MODEL	CONTROL SIGNAL	AUXILIARY MICROSWITCH
MVP230	110÷230 Vac	-
MVP230M		YES
MVP24	24 Vac/dc	_
MVP24M		YES



#### **APPLICATION AND USE**

MVP electrothermal actuators can be used for the on-off control of fancoil VPx valves (see DBL612en).

## **OPERATION**

MVP are electro-thermal actuators and are controlled by an on-off signal or, 24Vac models only, also by pulse width modulation. Actuators are powered by the on-off control signal; power supply heats the thermostatic actuator that is moving the valve stem. MVP24M and MVP230M models are equipped with an auxiliary microswitch. The microswitch has opened contact when the actuator is unpowered.

# **TECHNICAL CHARACTERISTICS**

DESCRIPTION	MVP24 MVP24M	MVP230 MVP230M
Power supply	24Vac/dc ± 10%	110-230Vac ± 10%
Consumption (starting)	4VA powered @ 24 Vac	12VA powered @ 110 Vac
		50VA powered @ 230 Vac
Consumption (working)	1,8 VA	
Frequency	50/60Hz	
Actuator timing (with Ambient Temperature 20 °C)	Cold start time (first movement): ~60 s	
	Valve closing: ~240 s	
	Valve opening: ~400 s	
Maximum stroke	4 mm	
Force	170 N	
Operating Temperature	2÷50 °C	
Storage Temperature	-10÷60 °C	
Protection Class	II	
Connection Cable	lenght 65 cm, cross section 0,35 mm <sup>2</sup>	
Protection Degree	IP44 for vertical mounting	
Aux. microswitch capability	0,7A 250 Vac (only models MVP230M and MVP24M)	

The performances stated in this sheet can be modified without any prior notice.



DESCRIPTION	MVP24 MVP24M	MVP230 MVP230M
Directive and Standards	EMC 2014/30/UE according to EN 61326-1: 2013	
	-	LVD 2014/35/UE according to EN 61010-1: 2010

#### MANUFACTURING CHARACTERISTICS

MVP actuators are made of V0 self-extinguishing thermoplastic material. All models are equipped with a power cable. Inside the actuator there is a thermostatic element heated by a PTC thermistor.

The actuators are equipped, at the bottom, with a M30x1,5 polymeric threaded ring nut that allows easy coupling to the VPx valves. For the assembled dimensions, see the overall dimensions.

#### SAFETY PRESCRIPTIONS

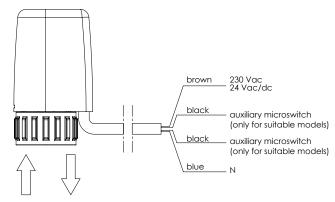
230V products (MVP230 and MVP230M):

- install on the power supply line a protecting device to avoid short circuits (fuse or magneto-thermic) according to the specifications in force;
- in case of accidental removal of the cover to make sure that power is disconnected before working on the actuator or near it;
- products are maintenance free.

#### **INSTALLATION**

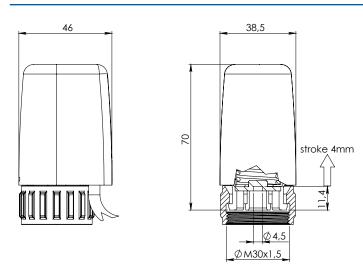
- To lower the stem push the actuator on the valve.
- Screw the ring nut onto the collector thread, placing the actuator as required.
- · Connect the cable (see figure below) according to the controller wiring diagrams.

#### WIRING CONNECTIONS



At Power ON At power OFF

## **DIMENSIONS** [mm]



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