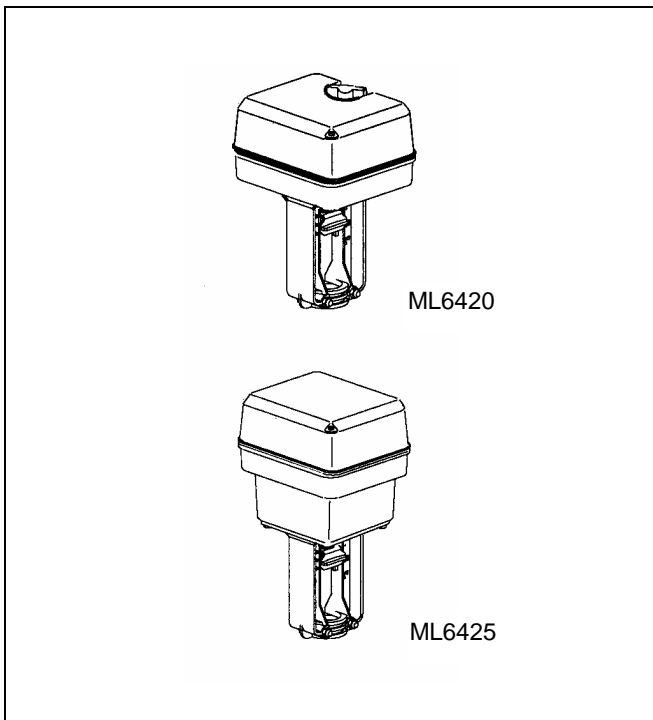


## ML6420A/ML6425A,B

### Electric Linear Valve Actuator

#### SPECIFICATION DATA



#### FEATURES

- Easy and quick installation
- No separate linkage required
- No adjustments
- Low power consumption
- Force limiting end switches
- Spring return models
- Manual operator
- Models for low and line voltage
- Synchronous motor
- Corrosion resistant design
- Maintenance free

#### SPECIFICATIONS

##### Temperature Limits

Ambient operating limits	-10 to +50°C @ 5 to 95% RH
Ambient storage limits	-40 to +70°C @ 5 to 95% RH
Max. valve medium temperature	+150°C

##### Protection

Protection standard per DIN 40050	IP54
Insulation per DIN EN60730	Class II
Flame retardant per	UL 94-V0 (with metal cable gland)

##### Wiring

Wiring terminals	1.5mm <sup>2</sup>
Cable entry	PG13.5 and two additional knock outs PG11 and PG13.5

##### Weight

non spring return type	1.3 kg
spring return type	2.4 kg

##### Material

Cover	ABS-FR
Base	glass fibre reinforced plastic
Yoke	aluminium diecast

#### APPLICATION

The ML6420A / ML6425A,B actuators are for floating control with controls providing switched or floating single pole double throw ( SPDT ) control outputs. They operate Honeywell's standard valves in heating, ventilation and air conditioning (HVAC) applications.

OS-Number	ML6420A 3007	ML6420A 3023	ML6425A3006	ML6425B3005	ML6425A3014	ML6420A3015	ML6420A 3031
Supply Voltage	24 Vac +/-15% 50/60Hz				230 Vac +10/-15% 50/60 Hz		
Power Consumption	4 VA	6 VA	11 VA		12 VA	6.5 VA	
Signal Input 1	Supply voltage between terminals 1 and 24 V~; actuator stem extended. Two way valve:"closed", three way valve port A-AB:"open"				Supply voltage between terminals N and Ph 1; actuator stem extended. Two way valve:"closed", three way valve port A-AB:"open"		
Signal Input 2	Supply voltage between terminals 2 and 24 V~; actuator stem retracted. Two way valve:"open", three way valve port A-AB:"closed"				Supply voltage between terminals N and Ph 2; actuator stem retracted. Two way valve:"open", three way valve port A-AB:"closed"		
Stroke	20 mm						
Run Time @ 50 Hz	1 min	0.5 min	1.8 min			1 min	0.5 min
Close-off Force	≥600 N						
Spring Return Time	—		≈12 s			—	
Spring Return Direction	—		actuator stem extends at power failure	actuator stem retracts at power failure	actuator stem extends at power failure	—	

## OPERATION

### General

The drive of a synchronous motor is converted into linear motion of the actuator stem by using a spur gear transmission. The actuator stem is connected with the valve stem by a button keyed retainer connection.

An integrated spring package limits the stem force to a factory adjusted value in either direction. Installed microswitches switch off the actuator precisely when the specified stem force is reached.

### Manual Operation

Actuators without spring return are equipped with a manual operator used in case of power failure. Manual operation is only possible after the power supply is switched off or disconnected.

To operate push the manual operator knob down and turn clockwise to move the stem downward and counter-clockwise to move the stem upward. If the actuator returns to automatic control, the manual operator knob unlocks automatically.

On actuators with spring return the manual operator is located under the cover.

### Spring Return

The ML6425A,B spring return types provide a defined safety position of the valve in case of power failure.

The spring return actuators are shipped from the factory with a shipment stop ( to lock the knob) in order to allow connection of the stem button retainer to the valve stem without power supply.

### Electrical Installation

The actuators are delivered with a pre-installed cable gland PG13.5. and two additional knock outs for PG11 and PG13.5.

### Accessories

#### Auxiliary switches

The actuators can be equipped on site with an auxiliary switch unit with two switches. Their switching points are adjustable over the full length of the actuator stroke.

The switches can be used to switch pumps or provide remote indication of any stroke position.

Part number: 43191680 - 005

#### Auxiliary potentiometers

Auxiliary potentiometers are available for mounting on site. They can be used as feedback potentiometer and / or to provide remote indication of the valve position.

Part number: 43191679 - 011 (10 kΩ)

Part number: 43191679 - 012 (220 Ω)

#### High Temperature Kit

(for applications >150°C medium temperature)

Order Number	Valve	DN
43196000 - 001	V5011A/V5011K	15 - 40
	V5013A/V5013G	15 - 40
	V5011R/V5013R	15 - 50
	V5328A/V5329A	15 - 32
43196000-002	V5011A	50
	V5013A/V5013G	50
	V5328A/V5329A	40 - 80
	V5049A	15 - 65
	V5050A	15 - 80

**CLOSE-OFF PRESSURE RATINGS in kPa**

Stem Force		600 N							
Stroke		20 mm							
Valve Size	mm	15	20	25	32	40	50	65	80
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Valves									
V5011R		1600	1600	1000	700	460	260		
V5013R		1600	1600	1000	700	460	260		
V5328A		1600/1000	1000	1000	600	350	200	120	50
V5329A (PN 16)		1000	1000	1000	790	480	260	160	100
V5329C (PN 6)		600	600	600	600	480	260	160	100
V5049A		1600/1000	1000	1000	600	350	200	120	
V5050A		1000	1000	1000	600	350	200	120	50
V5095A			1600	1600	1600	1600	1600	1600	1600

For specific data of above valves see Specification Data No.:

V5011R	EN0B-064
V5013R	EN0B-065
V5328A	EN0C-0432
V5329A,C	EN0C-0434
V5049A	EN0C-0433
V5050A	EN0C-0435
V5095A	EN0C-0490

## DIMENSIONS

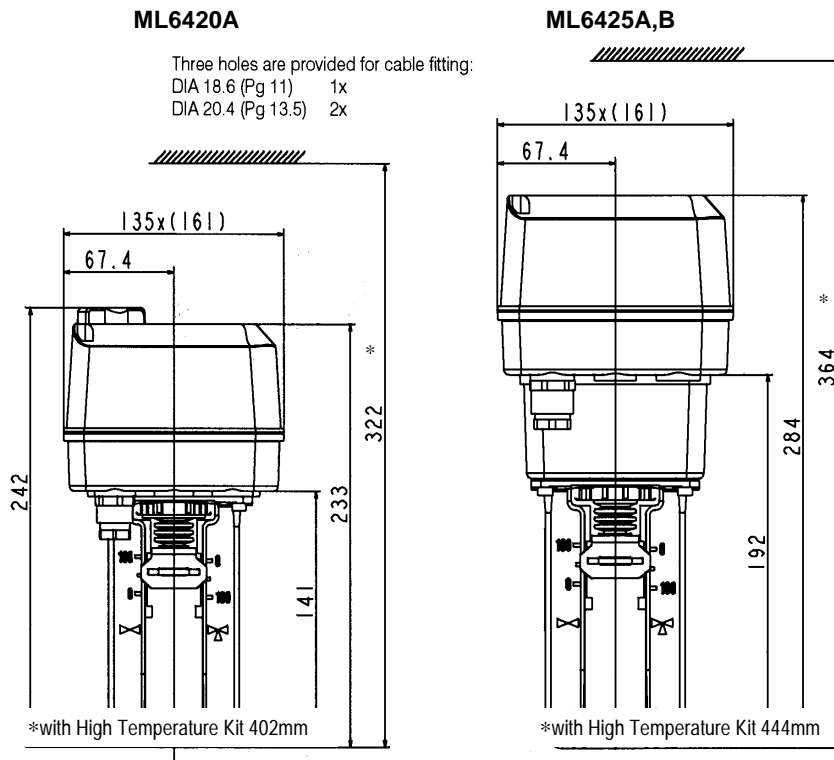
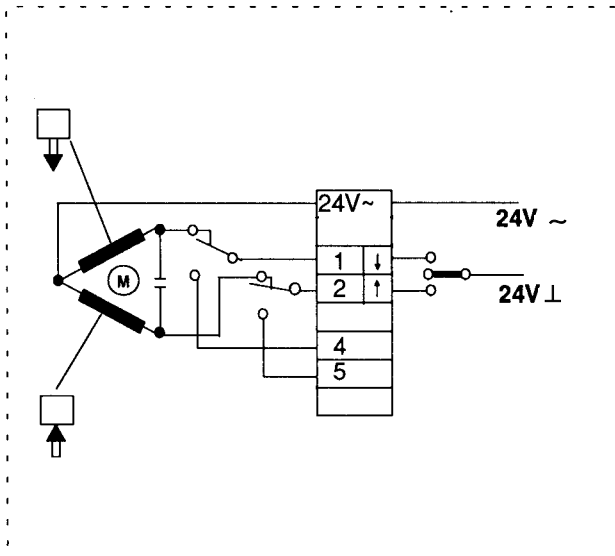


Fig. 1 Dimensions in mm

# WIRING

**ML6420A without spring return**



**ML6425A,B with spring return**

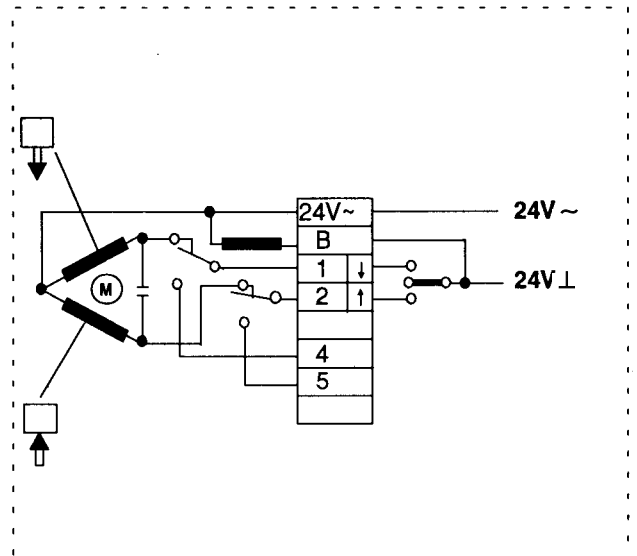
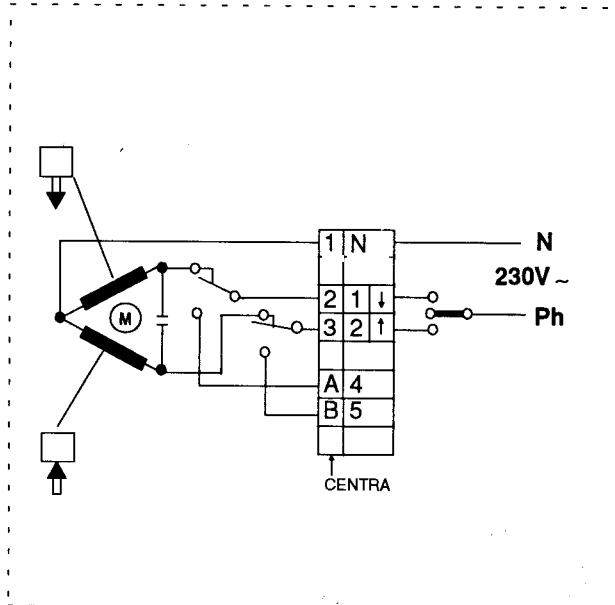


Fig. 2 Wiring 24V~ Models

**ML6420A without spring return**



**ML6425A with spring return**

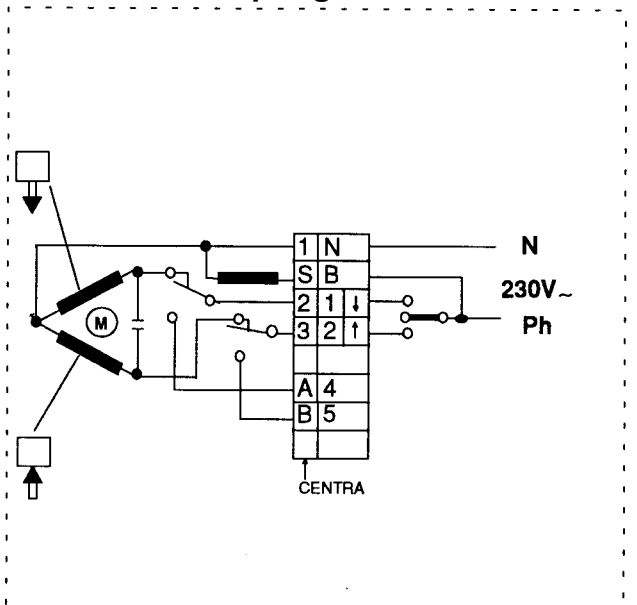
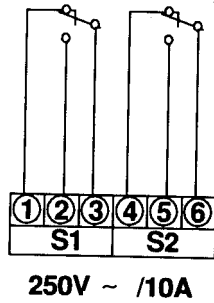


Fig. 3 Wiring 230V~ Models

## AUXILIARY SWITCH (OPTION)

Part Number: 43191680 - 005)



H00323-R2

Fig. 4. Wiring Auxiliary Switch

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Subject to change without notice. Printed in Germany

ENOC-0623 0498R3-MA

Manufacturing location is certified according to

**DIN**  
**EN ISO 9001**