

ACTUATORS & DAMPERS

DIRECT COUPLED ACTUATORS NON-SPRING RETURN

ML61XX, ML71XX SERIES



DESCRIPTION

The **Honeywell ML6161 and ML7161 actuators** have 35 in-lb (4 Nm) torque ratings and the **ML6174 and ML7174** have 70 in-lb (8 Nm) of torque. These non-spring return actuator families are designed to control VAV terminal unit dampers or Honeywell ball valves. The **ML61xx** models take an SPDT/floating control signal and the **ML71xx** models take a 2-10 VDC (or 4-20 mA, with a 500 ohm resistor) control signal.

FEATURES

- **Superior A/C synchronous submotor for consistent timing and long life**
- **Manual declutch lever for override**
- **Two minimum position setscrews included**
- **Perfect for Honeywell D690 Round Dampers**
- **Square shaft input only**



ML6161

Honeywell



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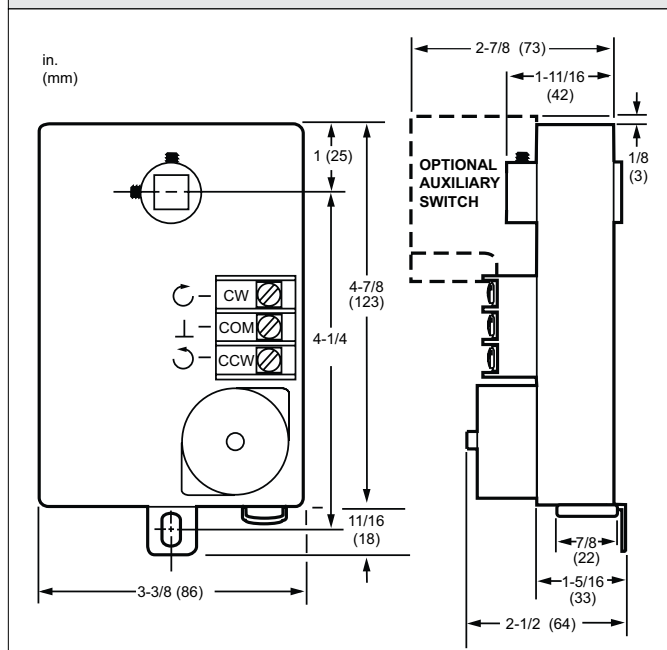
SPECIFICATIONS

Supply Voltage	24 VAC $\pm 20\%$, 50/60 Hz	Operating Temperature	20° to 125°F (-18° to 50°C)
Control Signal	Two-position, floating, Proportional 0-10 VDC, 4-20 mA	Operating Humidity	5% to 95% RH noncondensing
Auxiliary Switch	NO or NC, 50 VA, 24 VAC, Differential: Optional 3 angular degree minimum	Stroke	Selectable: 45 degree, 60 degree, 90 degree
Action	Non-spring return	Weight	1.3 lb (0.59 Kg)
Torque	35 in-lb, 70 in-lb	Approvals	UL File #E4436; plenum rated, CE (select models only)
Rotation	CW and CCW	Warranty	1 Year
Noise	45-60 dBA at 1 meter maximum		

INPUT SIGNAL/ACTUATOR DRIVE RELATIONSHIP

Input Signal	Actuator Drive Relationship
1.50 ± 0.2 VDC	Actuator drives to extreme CCW position
2.00 ± 0.2 VDC	Actuator remains at CCW position
3.00 ± 0.2 VDC	Actuator leaves CCW position
10.70 ± 0.7 VDC	Actuator drives to extreme CW position
10.00 ± 0.7 VDC	Actuator remains at CW position
8.50 ± 0.6 VDC	Actuator leaves CW position

DIMENSIONS



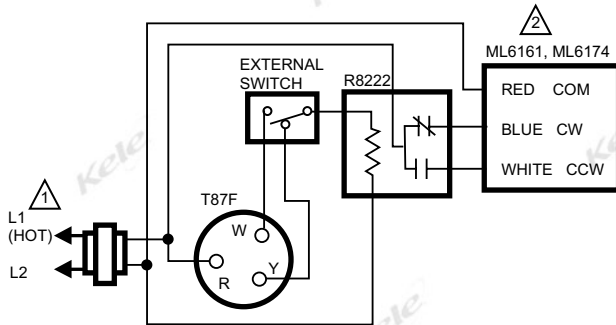


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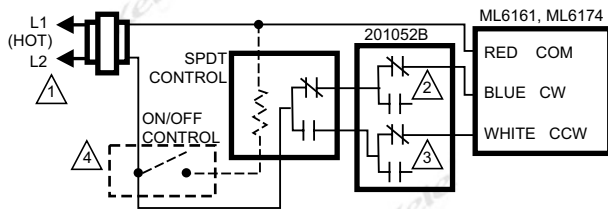
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WIRING

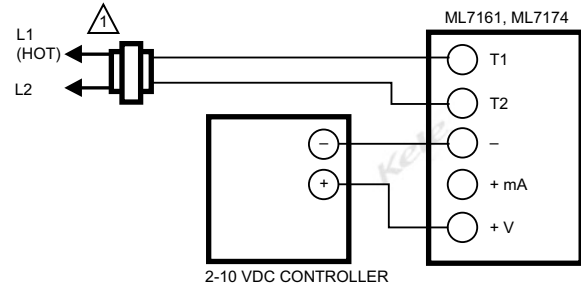


ML6161 or ML6174 used with T87F in heating-only or cooling-only application

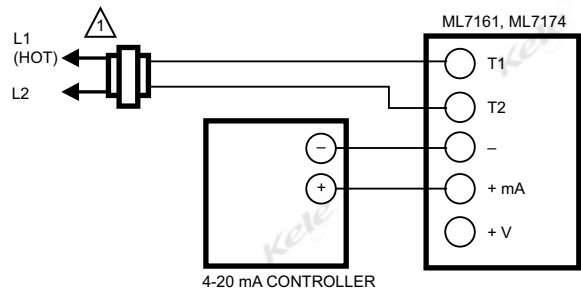
NOTE: See below for the 201052B Auxiliary Switch wiring.



201052B Auxiliary Switch wiring



ML7161 or ML7174 used with 2-10 VDC control



ML7161 or ML7174 used with 4-20 mA control

INSTALLATION NOTES:

- 1 Power supply. Provide disconnect means and overload protection as required.
- 2 Set switch to close when stroke reaches full CW position.
- 3 Set switch to close when stroke reaches full CCW position.
- 4 On-off control requires an R8222 SPDT relay in place of the SPDT control.

APPLICATION NOTES:

Auxiliary Switches: The 201052A or B Auxiliary Switch is used in conjunction with the actuator. It allows for control of equipment external to the actuator (for example, electric reheat coils and fan) at an adjustable point in the stroke (0° to 90°) of the actuator.

The 201052A and B Auxiliary Switches are field-addable. For mounting instructions, see form 63-2218, provided with the device.

IMPORTANT: When operating an ML6161 or ML6174 from a two-position controller, a 201052B Auxiliary Switch is required for proper operation.

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ORDERING INFORMATION

MODEL	DESCRIPTION
ML6161C2007	35 in-lb 24 VAC floating 90 second stroke time
ML6161D2006	35 in-lb 24 VAC floating 90 second stroke time with set point
ML6161B2024	35 in-lb 24 VAC floating 90 second stroke time set point switch
ML6161A2009	35 in-lb 24 VAC floating 90 second stroke time with potentiometer option
ML7161A2008	35 in-lb 24 VAC proportional 90 second stroke time with potentiometer option
ML6161B2073	35 in-lb 24 VAC floating 3 minute stroke time with set point switch
ML6161A2025	35 in-lb 24 VAC floating 3 minute stroke time with potentiometer option
ML6161C2015	35 in-lb 24 VAC floating 7 minute stroke time
ML6161B2032	35 in-lb 24 VAC floating 7 minute stroke time with set point switch
ML6161A2017	35 in-lb 24 VAC floating 7 minute stroke time with potentiometer option
ML6174B2019	70 in-lb 24 VAC floating 90 second stroke time with set point switch
ML6174D2009	70 in-lb 24 VAC floating 90 second stroke time with set point switch
ML6174A2002	70 in-lb 24 VAC floating 90 second stroke time with potentiometer option
ML7174A2001	70 in-lb 24 VAC proportional 90 second stroke time with set point switch
ML6174A2010	70 in-lb 24 VAC floating 3 minute stroke time with potentiometer option

	ACCESSORIES
201052A	Auxiliary switch (1 SPDT) for ML6161/ML7161/KA-35 actuators
201052B	Auxiliary switch (2 SPDT) for ML6161/ML7161/KA-35 actuators
7640Qw	Metal enclosure for attaching conduit to ML61xx, ML71xx

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