# Young Regulator Company

## Description 4075-LMB/3085-LMB

The **4075-LMB** is a round, commercial-quality, blade damper. It is driven by a 24vac Belimo LMB, brushless motor. It has been designed for Single-Point Zoning Solutions (local thermostat control of local outlets) (www.youngregulator.com/products/4075-LMB.pdf)

The **3085-LMB** is a round, commercial-quality, Opposed blade damper. It is driven by a 24vac Belimo LMB, brushless motor. It has been designed for Single-Point Zoning Solutions (local thermostat control of local outlets)(www.youngregulator.com/ products/3085-LMB.pdf)

Auxiliary switches, timers and feedback devices are available with either of these dampers. Dampers are available with aluminum or stainless steel shells and blade elements and low leak seals.



**T-720** is an attractive digital thermostat with a proportional and integral (P+I) algorithm to speed time to set-point and reduce overshoots. The Heat/Cool model (T-720A) includes a changeover duct sensor. Also available in a Cooling Only model (T-720B).

### <u>Wiring</u>

The LMB motor is a 24v AC or DC, threewire actuator.

It requires three connections:

- 1. Ground or Common (24V-)
- 2. Open Signal (24V+)
- 3. Close Signal (24V+)

Drone dampers may be wired in series. Auto changeover sensor supplied with all T720A units. Sensor should be Installed in the main trunk in a free flow section of duct work.



## Sequence of Operations

The T-720A thermostat measures both room and duct temperature.

Duct temperature is below  $72^{\circ}F$  indicates cooling, above  $72^{\circ}F$  indicates heating.

It measures room temp and adjusts the damper to provide an appropriate amount of air depending on distance to set point. It initially opens the damper wide then as the temperature approaches set point it starts to close the damper, reducing overshoots.

#### In Cooling Mode

When Room Temperature is above set point the damper opens. When Room temperature is below set point then the damper closes. In Heating Mode

When Room Temperature is above set point the damper closes. When Room Temperature is below set point the damper opens,

