



**4011-IF**  
**Round Modulating VAV Damper**

**Application and Design**

Young Regulator model 4011 is a round, 2-position motorized damper that is ideal for zone control, outside air, air intake, and exhaust air vents.

The actuator configuration is available as power-open / spring-close (PO/SC) or power-close / spring-open (PC/SO) with either a 24V or 120V actuator.

The hysteresis synchronous actuator is whisper quiet and has a "lost motion" drive to protect the gear train from closing shock. Special windings and heavy-duty steel gearing provide for long life and easy spring return operation.

The 4011-IF includes our Interface Board that simplifies field wiring. (See page 2)



*\*Paired with T-720IF-2P thermostat (sold separately)*

STANDARD CONSTRUCTION (TO 4" W.C.)		
Shell	4"Ø - 8"Ø	24 ga. Galvanized Steel
	10"Ø - 20"Ø	20 ga. Galvanized Steel
Blade	20 ga. Galvanized Steel "V" Blade	
Shaft	½" Zinc Plated Steel	
Blade Bushings	Synthetic	

SIZE INFORMATION	
One end straight, one end crimped	
Rolled stiffening beads	
Diameter	4"Ø-20"Ø
Shell Length	8"

SYNCHRONOUS ANTI-BACKLASH ACTUATOR	
Volts	24V
Watts	6W
VA	10 VA
Amp	.45 Amp
Timing	30Sec Powered / 8Sec Spring Return
Torque	65 In. Oz. Average

OPTIONS	
120V Actuator	
Low Leak Seals	
Power Close / Spring Open	

ACCESSORIES	
Transformer (YR Model 3035)	
Thermostat (YR Model T-720IF-2P)	

Quantity	Option	Notes

<b>PROJECT</b>	<b>LOCATION</b>
<b>CONTRACTOR</b>	<b>DESIGN SPECIFIER</b>



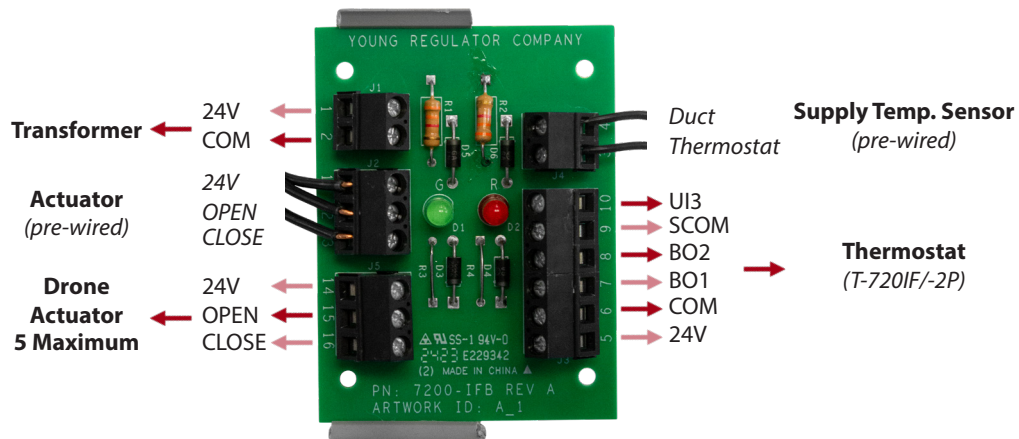
# “IF” Engineering Specifications

The interface-board for YR “IF” Series models is a circuit board that allows communication between the pre-wired temperature sensor, actuator, and the T-720IF thermostat. Field connections consist of the transformer (to power the assembly) and thermostat wiring. For convenience, an extra terminal block is provided for integrating a drone damper.

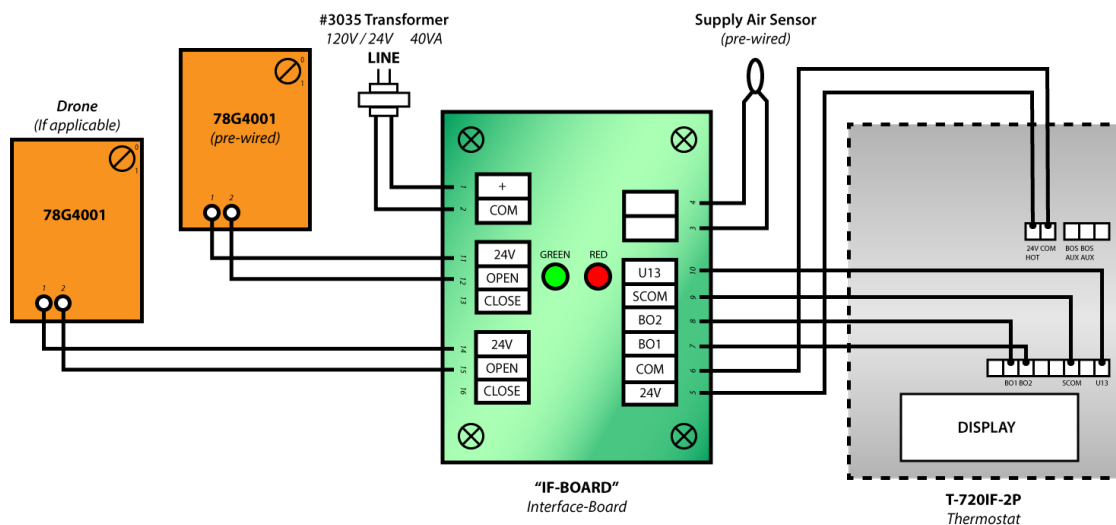
### Sequence of Operation:

The supply temperature sensor (AKA ‘duct stat’) determines if warm or cold air is available in the airstream. This information is shown on the thermostat by displaying ‘Heating Mode’ or ‘Cooling Mode’. As the thermostat works to control the space temperature to the set-point, the damper will open, close, or modulate as needed. The interface-board features a GREEN and a RED light.

- The **GREEN LED** indicates the damper is opening
- The **RED LED** indicates the damper is closing
- When **BOTH LED’s** are lit, the thermostat is satisfied and the damper is stalled



## Wiring Schematic:



*\*18 gauge thermostat wire is recommended.*