

### ESDO series Spring Return Damper Actuators



#### Summary

Enlenida ESDO 5 Nm spring return damper actuator series are designed specifically for application into the HVAC market. Enlenida high quality damper actuators are developed for use with air damper, butterfly valve, characterized ball valve and other devices that required a fail safe function. The actuator motorized the damper or other devices when power on and spring back to it original position when power is cut off.

#### Features

- 2 points on/off control
- Damper Size up to 1.0 m<sup>2</sup>
- Voltage AC/DC 24V and AC 230V available
- Universal Spindle Clamp for easy direct mounting
- Shaft dimension Ø10...16 mm / 7...11 mm square
- Minimum Shaft Length 40mm
- Anti-rotation bracket provided for stability
- Adjustable angle of rotation
- Selectable direction of rotation by reversing actuator
- 1 adjustable SPDT auxiliary switches when requested
- Energy saving at end stops
- Actuators with 1m cable connection
- Customised version available on request

#### Angle of Rotation Limiting

For 5° to 45° Adjustment (Diagram 1)

1. Loosen Screw of the mechanical limiter plate.
2. Move the limiter plate to the appropriate position.
3. Tighten the screw .

For 45° to 85° Adjustment (Diagram 2)

1. Release the secure ring of the adapter.
2. Remove the adapter and turn negative 45° as shown.
3. Insert adapter and secure the adapter ring.
4. Loosen Screw of the mechanical limiter plate
5. Move the limiter plate to the appropriate position

#### Model Selection Table

Torque	Running Time	Power Supply	Auxiliary Switches	Model/Type
5 Nm	50...70 sec	AC/DC 24V	No	ESDO6105-1
	Spring Back <20 sec		1 x SPDT	ESDO6105-1S
5 Nm	50...70 sec	AC 230V ±10%	No	ESDO6105-3
	Spring Back <20 sec		1 x SPDT	ESDO6105-3S

#### Specifications

Model	ESDO6105-1	ESDO6105-3
Torque — Motor (Rated Voltage)	Min. 5 Nm	Min. 5 Nm
— Spring	Min. 5 Nm	Min. 5 Nm
Damper Size	1 m <sup>2</sup>	1 m <sup>2</sup>
Power Supply	AC/DC 24V	AC 230V
Frequency	50...60Hz	50...60Hz
Power Consumption		
-Operating	7.2 W	4.2 W
-At the end stops	2.5 W	2.5 W
For wire sizing	10.0 VA	10.0 VA
Auxiliary Switches Rating (Amp and Voltage)	3 (1.5) A / 230 V (for 24 V and 230 V)	3 (1.5) A / 230 V (for 24 V and 230 V)
Protection Class	II (for 24 V and 230 V)	II (for 24 V and 230 V)
Controls Signal	2 Point On/Off	2 Point On/Off
Angle of Rotation	90° (95° mechanical)	90° (95° mechanical)
Angle of Rotation Limiting	5°...85° in 5° step	5°...85° in 5° step
Weight	1.8 Kg	1.9 Kg
Life Cycle	60,000 rotation	60,000 rotation
Sound Level	Below 45 dB	Below 45 dB
IP Protection	IP54	IP54
Ambient Temperature	-20°...50° as per IEC 721-3-3	-20°...50° as per IEC 721-3-3
Ambient Humidity	5...95% RH	5...95% RH
Inventory Temperature	+70° as per 721-3-2	+70° as per 721-3-2
Maintenance	Maintenance free	Maintenance free
Certification	CE EN / EEC... Requirements	CE EN / EEC... Requirements