



FIRBESON

## F30A Series Low Noise Damper Actuator

The damper actuator specially designed for the air dampers of the HVAC Systems



### Torque

2Nm, 5Nm, 10Nm

### Supply Voltage & Control

AC/DC19.2-28.8V or AC85-265V, 2/3 point

AC/DC19.2-28.8V, 0(2)-10V or 0(4)-20mA

### Order code

F30 A - X X X - X

Accessories : L for low Noise;SL for Auxiliary Switches

Power source : 24 for AC/DC19.2-28.8V;  
230 for AC 85-265V

Control : D for 2/3 point; M for modulating

Torque : 2Nm, 5Nm, 10Nm

Standard Damper Actuator

Labeling of Series

## 2Nm Model Types

| Model         | Torque | Running Time | Nominal Voltage         | Auxiliary Switches |
|---------------|--------|--------------|-------------------------|--------------------|
| F30A-2D24-L   | 2Nm    | 75s          | AC/DC 24V<br>Or AC 230V | Without            |
| F30A-2D230-L  |        |              |                         |                    |
| F30A-2M24-L   |        |              |                         |                    |
| F30A-2D24-SL  |        |              |                         | With 2 SPDT        |
| F30A-2D230-SL |        |              |                         |                    |
| F30A-2M24-SL  |        |              |                         |                    |

## F30A-2-L Specification

| Items                         | F30A-2D24-L<br>F30A-2D24-SL                                                                                                                | F30A-2D230-L<br>F30A-2D230-SL | F30A-2M24-L<br>F30A-2M24-SL |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------|
| Electrical Parameters         |                                                                                                                                            |                               |                             |
| Nominal Voltage （V）           | AC/DC 24V 50/60Hz                                                                                                                          | AC 230V 50/60Hz               | AC/DC 24V 50/60Hz           |
| Nominal Voltage Range （V）     | AC/DC19.2-28.8V                                                                                                                            | AC 85-265V                    | AC/DC19.2-28.8V             |
| Power Consumption （on）        | 1.5W                                                                                                                                       |                               |                             |
| Power Consumption （off）       | 0.7W                                                                                                                                       |                               |                             |
| Cable                         | 2/3 point: 1m cable 3*0.75mm <sup>2</sup> ; Modulating: 1m cable 4*0.5mm <sup>2</sup> ; Positional Feedback: 1m cable 6*0.5mm <sup>2</sup> |                               |                             |
| Technical Parameters          |                                                                                                                                            |                               |                             |
| Torque                        | 2Nm                                                                                                                                        |                               |                             |
| Damper Area （m <sup>2</sup> ） | 0.5                                                                                                                                        |                               |                             |
| Running Time                  | 75s                                                                                                                                        |                               |                             |
| Control Signal                | 2/3 point                                                                                                                                  |                               | 0(2)-10V or 0(4)-20mA       |
| Angle of Rotation             | 0~90°（max 93°）                                                                                                                             |                               |                             |
| Direction of Rotation         | L/R switch                                                                                                                                 |                               |                             |
| Positional Feedback           | None or 2 SPDT                                                                                                                             |                               |                             |
| Life Cycle                    | ≥70000                                                                                                                                     |                               |                             |
| Noise Level                   | ≤35dB                                                                                                                                      |                               |                             |
| Operating Condition           |                                                                                                                                            |                               |                             |
| Protection Class              | II/III                                                                                                                                     |                               |                             |
| Degree of Protection          | IP54                                                                                                                                       |                               |                             |
| Ambient Temperature           | -30~+50℃                                                                                                                                   |                               |                             |
| Ambient Humidity              | 5~95%RH                                                                                                                                    |                               |                             |
| Non-operating Temperature     | -40~+80℃                                                                                                                                   |                               |                             |
| Dimensions & Weight           |                                                                                                                                            |                               |                             |
| Spindle Diameter              |  8-18mm                                                |                               |                             |
| Weight（Kg）                    | 0.5                                                                                                                                        |                               |                             |
| Certificates                  | CE, UKCA, RoHS                                                                                                                             |                               |                             |

## 5Nm Model Type

| Model         | Torque | Running Time | Nominal Voltage         | Auxiliary Switches |
|---------------|--------|--------------|-------------------------|--------------------|
| F30A-5D24-L   | 5Nm    | 150s         | AC/DC 24V<br>Or AC 230V | Without            |
| F30A-5D230-L  |        |              |                         |                    |
| F30A-5M24-L   |        |              |                         |                    |
| F30A-5D24-SL  |        |              |                         | With 2 SPDT        |
| F30A-5D230-SL |        |              |                         |                    |
| F30A-5M24-SL  |        |              |                         |                    |

## F30A-5-L Specification

| Items                         | F30A-5D24-L<br>F30A-5D24-SL                                                                                                                | F30A-5D230-L<br>F30A-5D230-SL | F30A-5M24-L<br>F30A-5M24-SL |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------|
| Electrical Parameters         |                                                                                                                                            |                               |                             |
| Nominal Voltage （V）           | AC/DC 24V 50/60Hz                                                                                                                          | AC 230V 50/60Hz               | AC/DC 24V 50/60Hz           |
| Nominal Voltage Range （V）     | AC/DC19.2-28.8V                                                                                                                            | AC 85-265V                    | AC/DC19.2-28.8V             |
| Power Consumption （on）        | 1.5W                                                                                                                                       |                               |                             |
| Power Consumption （off）       | 0.7W                                                                                                                                       |                               |                             |
| Cable                         | 2/3 point: 1m cable 3*0.75mm <sup>2</sup> ; Modulating: 1m cable 4*0.5mm <sup>2</sup> ; Positional Feedback: 1m cable 6*0.5mm <sup>2</sup> |                               |                             |
| Technical Parameters          |                                                                                                                                            |                               |                             |
| Torque                        | 5Nm                                                                                                                                        |                               |                             |
| Damper Area （m <sup>2</sup> ） | 1                                                                                                                                          |                               |                             |
| Running Time                  | 150s                                                                                                                                       |                               |                             |
| Control Signal                | 2/3 point                                                                                                                                  |                               | 0(2)-10V or 0(4)-20mA       |
| Angle of Rotation             | 0~90°（max 93°）                                                                                                                             |                               |                             |
| Direction of Rotation         | L/R switch                                                                                                                                 |                               |                             |
| Positional Feedback           | None or 2 SPDT                                                                                                                             |                               |                             |
| Life Cycle                    | ≥70000                                                                                                                                     |                               |                             |
| Noise Level                   | ≤35dB                                                                                                                                      |                               |                             |
| Operating Condition           |                                                                                                                                            |                               |                             |
| Protection Class              | II/III                                                                                                                                     |                               |                             |
| Degree of Protection          | IP54                                                                                                                                       |                               |                             |
| Ambient Temperature           | -30~+50℃                                                                                                                                   |                               |                             |
| Ambient Humidity              | 5~95%RH                                                                                                                                    |                               |                             |
| Non-operating Temperature     | -40~+80℃                                                                                                                                   |                               |                             |
| Dimensions & Weight           |                                                                                                                                            |                               |                             |
| Spindle Diameter              |  8-18mm                                                |                               |                             |
| Weight（Kg）                    | 0.5                                                                                                                                        |                               |                             |
| Certificates                  | CE, UKCA, RoHS                                                                                                                             |                               |                             |

## 10Nm Model Type

| Model          | Torque | Running Time | Nominal Voltage         | Auxiliary Switches |
|----------------|--------|--------------|-------------------------|--------------------|
| F30A-10D24-L   | 10Nm   | 150s         | AC/DC 24V<br>Or AC 230V | Without            |
| F30A-10D230-L  |        |              |                         |                    |
| F30A-10M24-L   |        |              |                         |                    |
| F30A-10D24-SL  |        |              |                         | With 2 SPDT        |
| F30A-10D230-SL |        |              |                         |                    |
| F30A-10M24-SL  |        |              |                         |                    |

## F30A-10-L Specification

| Items                         | F30A-10D24-L<br>F30A-10D24-SL                                                                                                              | F30A-10D230-L<br>F30A-10D230-SL | F30A-10M24-L<br>F30A-10M24-SL |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------|
| Electrical Parameters         |                                                                                                                                            |                                 |                               |
| Nominal Voltage （V）           | AC/DC 24V 50/60Hz                                                                                                                          | AC 230V 50/60Hz                 | AC/DC 24V 50/60Hz             |
| Nominal Voltage Range （V）     | AC/DC19.2-28.8V                                                                                                                            | AC 85-265V                      | AC/DC19.2-28.8V               |
| Power Consumption （on）        | 2.5W（24V）；3.5W（230V）                                                                                                                       |                                 | 2.5W                          |
| Power Consumption （off）       | 0.7W（24V）；1W（230V）                                                                                                                         |                                 | 0.7W                          |
| Cable                         | 2/3 point: 1m cable 3*0.75mm <sup>2</sup> ; Modulating: 1m cable 4*0.5mm <sup>2</sup> ; Positional Feedback: 1m cable 6*0.5mm <sup>2</sup> |                                 |                               |
| Technical Parameters          |                                                                                                                                            |                                 |                               |
| Torque                        | 10Nm                                                                                                                                       |                                 |                               |
| Damper Area （m <sup>2</sup> ） | 2                                                                                                                                          |                                 |                               |
| Running Time                  | 150s                                                                                                                                       |                                 |                               |
| Control Signal                | 2/3 point                                                                                                                                  |                                 | 0(2)-10V or 0(4)-20mA         |
| Angle of Rotation             | 0~90°（max 93°）                                                                                                                             |                                 |                               |
| Direction of Rotation         | L/R switch                                                                                                                                 |                                 |                               |
| Positional Feedback           | None or 2 SPDT                                                                                                                             |                                 |                               |
| Life Cycle                    | ≥70000                                                                                                                                     |                                 |                               |
| Noise Level                   | ≤35dB                                                                                                                                      |                                 |                               |
| Operating Condition           |                                                                                                                                            |                                 |                               |
| Protection Class              | II/III                                                                                                                                     |                                 |                               |
| Degree of Protection          | IP54                                                                                                                                       |                                 |                               |
| Ambient Temperature           | -30~+50℃                                                                                                                                   |                                 |                               |
| Ambient Humidity              | 5~95%RH                                                                                                                                    |                                 |                               |
| Non-operating Temperature     | -40~+80℃                                                                                                                                   |                                 |                               |
| Dimensions & Weight           |                                                                                                                                            |                                 |                               |
| Spindle Diameter              |  12-26.7mm                                              |                                 |                               |
| Weight（Kg）                    | 0.9                                                                                                                                        |                                 |                               |
| Certificates                  | CE, UKCA, RoHS                                                                                                                             |                                 |                               |