

## 227C-230-16J Rotary Actuator

### Description

Rotary actuator for adjusting dampers in HVAC installations.

- Running time 150 s / 90°
- Torque Nm
- Nominal voltage 230 VAC/DC
- Control continuous control (0)2...10 VDC
- Damper size up to approx. 3 m<sup>2</sup>
- Damper coupling clamp  
∅ 8-15 mm / Ø 8-20 mm



### Technical data

#### Electrical data

<b>Nominal voltage</b>	230 VAC/DC, 50/60Hz
<b>Nominal voltage range</b>	85...265 VAC/DC
<b>Power consumption motor (motion)</b>	2.0 W
<b>Power consumption standby (end position)</b>	1.0 W
<b>Wire sizing</b>	3.5 VA
<b>Control</b>	continuous control (0)2...10 VDC
<b>Connection motor</b>	cable L= 2 x 1000 mm, 4 x 0.75 mm <sup>2</sup> & 2 x 0.75 mm <sup>2</sup> (halogen free)
<b>Connection feedback potentiometer</b>	-
<b>Connection GUAC</b>	-
<b>Feedback signal</b>	0)2...10 VDC, max. 5 mA

### Functional data

<b>Torque</b>	16 Nm
<b>Damper size</b>	up to approx. 3 m <sup>2</sup>
<b>Synchronized speed</b>	+/-5%
<b>Direction of rotation</b>	selected by switch
<b>Manual override</b>	gearing latch disengaged with pushbutton, self-resetting
<b>Angle of rotation</b>	0°...max. 95° can be limited with adjustable mechanical end stops
<b>Running Time</b>	150 s / 90°
<b>Sound power level</b>	< 45 dB(A)
<b>Shaft coupling</b>	clamp $\diamond$ 8-15 mm / $\varnothing$ 8-20 mm
<b>Position indication</b>	mechanical with pointer
<b>Service life</b>	100,000 cycles (0°...95°...0°) > 1,500,000 partial cycles (max. $\pm$ 5°)

### Safety

<b>Protection class</b>	II (double insulation)
<b>Degree of protection</b>	IP 54 (cable downwards)
<b>EMC</b>	CE (2014/30/EU)
<b>LVD</b>	CE (2014/35/EU)
<b>RoHS</b>	CE (2011/65/EU - 2015/863/EU - 2017/2102/EU)
<b>Mode of operation</b>	Typ 1 (EN 60730-1)
<b>Rated impulse voltage supply / control</b>	0.8 kV (EN 60730-1)
<b>Control pollution degree</b>	3 (EN 60730-1)
<b>Ambient temperature normal operation</b>	-30°C...+50°C
<b>Storage temperature</b>	-30°C...+80°C
<b>Ambient humidity</b>	5...95% r.H., non-condensing (EN 60730-1)
<b>Maintenance</b>	Maintenance free

### Dimensions/Weight

<b>Dimensions</b>	117 x 67 x 61 mm
<b>Weight</b>	350 g

## Functionality / Properties

### Operating mode

Connect power supply to wire 1+2 and a reference signal Y to wire 3 in range of (0)2...10 VDC, actuator drives to its specified position. The actual damper position (0...100%) is a feedback signal U on wire 4 for example to share with other actuators. The actuator is overload-proof, requires no limit switches and automatically stops, when the end stop is reached.

### Direct mounting

Simple direct mounting on the damper shaft with a clamp, protection against rotating with enclosed anti-rotation lock or rather at intended attachment points.

### Manual override

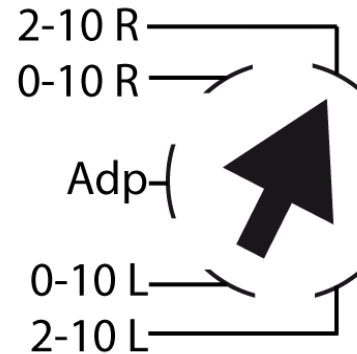
Manual override with self resetting push button possible (the 3 gear is disengaged as long as the button is pressed).

### Mode switch

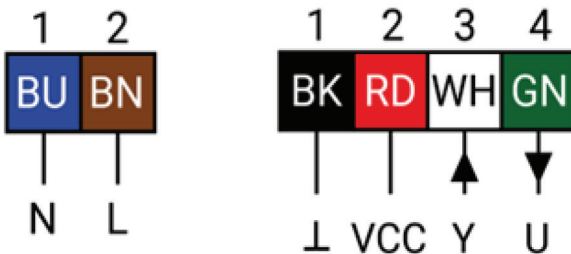
Mode switch with five positions at the housing:  
 2-10 R: rotary direction right 2-10 VDC  
 0-10 R: rotary direction right 0-10 VDC  
 Adp: adaption  
 0-10 L: rotary direction left 0-10 VDC  
 2-10 L: rotary direction left 2-10 VDC

### Adaption drive

- Actuator power off
- Setting the mechanical end stops
- Actuator power on
- Adaption enable
- Actuator drive to position 0
- Actuator drive to position 1
- Adaption disable, if desired angular range reached or rather if actuator reached endstop
- "Y" refers to the measured angular range



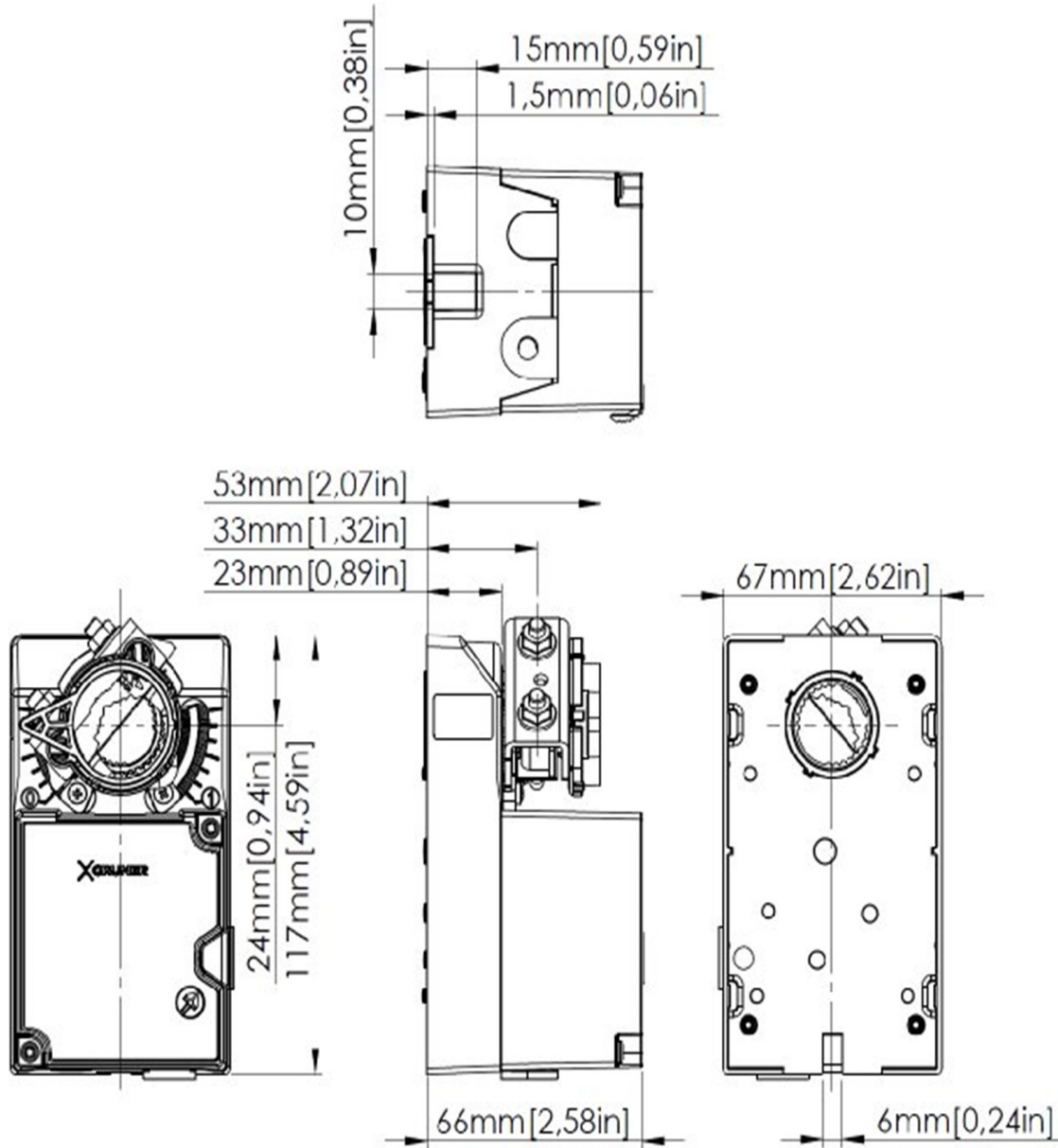
## Connector / Security Note



### Safety remarks

- Connect via safety isolation transformer.
- The device is not allowed to be used outside the specified field of application, especially in airplanes.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The device may only be opened at the manufacturer's site.
- The device is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- When calculating the required torque, the specifications supplied by the damper manufacturer's (cross section, design, installation site), and the air flow conditions must be observed.

Technical Drawing



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