

# Kinetrol Model 21 Spring Return Single Acting Actuator

## Specification

### Angle of Travel (adjustable)

80° - 100°

(restricted travel versions available)

### Displaced Volume

31386 cm<sup>3</sup> / 1915 in<sup>3</sup>

### Materials of Construction

**Casing:** Sand cast aluminium alloy

**Vane & Output Shaft:** SG iron, zinc plated

**Shaft bushes:** PTFE coated bronze (lead free)

**Seals:** Moulded polyurethane

**Seal expanders:** Stainless spring steel

**Clock Type Spring:** Carbon spring steel

### Finish

Epoxy thermoset powder

### Weight

500.6 kg / 1103.6 lb (excluding coupling)

### Operating Temperature

-40°C to +80°C (-40°F to +176°F)



ATEX Category 2

## Spring Torques

### Metric Units - Nm

| Actuator Model | Position of air OR spring return stroke | Pressure (bar) |     |     |     |     |     |     |        |        |        |        |        |
|----------------|---|----------------|-----|-----|-----|-----|-----|-----|--------|--------|--------|--------|--------|
|                |   | 1.7            | 2.0 | 2.4 | 2.8 | 3.1 | 3.5 | 3.8 | 4.1    | 4.5    | 4.8    | 5.2    | 5.5    |
| 21-120         | Start                                   |                |     |     |     |     |     |     | 4121.0 | 4514.0 | 4798.0 | 5181.0 | 5456.0 |
|                | Finish                                  |                |     |     |     |     |     |     | 3046.0 | 3423.0 | 3732.0 | 4133.0 | 4464.0 |

### English Units - lbf ins

| Actuator Model | Position of air OR<br>spring return<br>stroke | Pressure (psi) |    |    |    |    |    |    |       |       |       |       |       |
|----------------|---|----------------|----|----|----|----|----|----|-------|-------|-------|-------|-------|
|                |   | 25             | 30 | 35 | 40 | 45 | 50 | 55 | 60    | 65    | 70    | 75    | 80    |
| 21-120         | Start   |                |    |    |    |    |    |    | 36471 | 39949 | 42462 | 45852 | 48286 |
|                | Finish  |                |    |    |    |    |    |    | 26957 | 30294 | 33028 | 36577 | 39506 |

Factory assembled actuator/spring return assemblies have the spring pretension set for "balanced" torque output when the actuator is operated by air at 5.5 bar (80 psi). Factory assemblies can be preset for different air pressures below 5.5 bar (80 psi) on request.

## Options

☐ ISO Flange / Female drive spring option

☐ Low pressure spring option

☐ Limit switch boxes for open/closed indication  
- various switches including hazardous area

☐ AP pneumatic positioner - full range of options

☐ EL electropneumatic positioner - full range of options

☐ P3 on/off positioner - full range of options  
including hazardous area

☐ Geared manual override

☐ G3 Damper Drive

☐ High temperature / Low temperature options

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## Product Code

## Air Ports

## Mount Holes

|  |       |  |
|--|-------|--|
| 214-120<br>Metric Spring Return Clockwise          | G1    | 8 x M30 x 50 deep on 226.3 PCD                       |
| 214-130<br>Metric Spring Return Counter Clockwise  | G1    | 8 x M30 x 50 deep on 226.3 PCD                       |
| 217-120<br>English Spring Return Clockwise         | 1 NPT | 8 x 1 $\frac{1}{8}$ -7 UNC x 2.00" deep on 8.91" PCD |
| 217-130<br>English Spring Return Counter Clockwise | 1 NPT | 8 x 1 $\frac{1}{8}$ -7 UNC x 2.00" deep on 8.91" PCD |

For female drive part codes contact Kinetrol

## Dimensions

