

Environmental conditions are an important design consideration when selecting an IDC actuator. Industrial Devices' units are self-contained systems which are protected from "direct contact" with harsh environments by an aluminum housing with a durable anodized and epoxy coated surface finish. However, extreme conditions can have an adverse effect on cylinder operation and life. Factors such as extreme temperature, liquids or abrasive contaminants (gaining internal access) can impede performance and cause premature wear of mechanical parts. Review the information below when sizing your application to choose appropriate options or protective measures.

### Primary Environmental Factors

- Temperature
- Liquid contaminants
- Particle contaminants

### Rod Type

#### Temperature

- NV actuators are rated for use between 0 and 60°C (32 to 140°F).
- EC actuators are rated for use between -30 and 70°C (-22 to 158°F)

#### Particle and Liquid Contaminants

- NV series actuators are protected against dust but are not protected against direct water (or any liquid) contact. Liquid or moisture can gain access into the housing, eventually corroding internal components.
- EC actuators are sealed and gasketed and are rated to IP 54. They are protected against dust and light water sprays and splashing.

### Rodless

- R-series rodless actuators are rated for use between -28°C and 60°C (-20°F to 140°F).

- Rodless actuators are protected by a flexible stainless-steel-backed fluoro-silicon seal. They are IP44 rated, which protects the actuator where minimal liquid splash may occur. Units require a customer supplied bellows when placed in an environment containing liquid spray or washdown.

### Protective Boot Option

The -PB option is available for EC actuators and increases the actuator's resistance to liquids. The diagram to the right shows a typical installation of an EC with the -PB option. This option protects the actuator to IP65. Note that some IDC motors are not protected to this level. The -PB option is not available with NV or R-series Rodless actuators.

### Custom Environmental Options

IDC has over 20 years experience designing custom actuators. We have designed fully encapsulated actuators for Corrosive, Food Processing, and Washdown environments, and have experience designing Cleanroom compatible actuators. Call IDC for more information regarding Custom environmental options.

