



A Type Pneumatic Actuator



CH-air A Type/ENPI

June 2006

Electroless nickel plated pneumatic actuator

The CH-air A Type actuator is assembled using components machined to fine tolerances to produce a finished product with a very low friction coefficient. This produces an actuator that offers durability and reliability in service.

It is compliant with all the usual actuator norms making it compatible with similarly compliant valves, and position monitoring, control and feedback devices.

Careful design in the CH-air A Type spring return models has virtually eliminated the out of balance torques between air and spring strokes so familiar with most of its rivals. This produces a balanced air and spring stroke which creates an equal loading on valve stems.

Safety is a key feature, particularly in spring return models, where the use of pre-loaded spring capsules which fully relax before the actuator's end cap is

removed, protect engineers when servicing the actuator.

Whilst the end of travel can be adjusted in both the fully open and closed positions, the more



critical closed position adjustment is internal and therefore can not be inadvertently adjusted by a site operator who may not understand the importance of this adjustment.

Attention to details like this have ensured that the CH-air A Type actuators carry the CE mark and have ATEX approval

for use in hazardous areas. In all but the smallest and largest actuator sizes, the actuator has dual ISO:5211 drillings and a double square drive, making the mounting of the CH-air A Type actuators flexible and easy.

The actuator is of rack and pinion design with an anti blow-out proof pinion, and its extruded aluminium body is hard anodized to protect it against oxidization in non-aggressive atmospheres.

To cover more aggressive atmospheres, an electroless nickel-plated version, a Teflon® coated version, and stainless steel versions are available.

Repair kits containing replacement soft seals and acetal resin sliding parts are available, but with a guarantee of 1 million cycles is offered as standard, on all but the highest cycling applications, the CH-air A Type actuator is almost maintenance

Quick guide to the CH-air A Type standard features :

Robust rack and pinion construction

High accuracy machining of components

ATEX Ex II 2 GD Approved for use in hazardous areas

CE Approved

Guaranteed for 1,000,000 cycles

Balanced air & spring strokes in spring return version

Safe to dismantle for routine maintenance

Compliant with all actuator standards

Accessories are easy to mount

Hard anodised aluminium body

ENP coated option

Teflon® coated option

Stainless steel version



Body protection option -ENP

Chemical nickel plating is an electroless process that produces layers of nickel at constant thickness that bonds to the substrata of the host material - in this case aluminium. The plating therefore bonds to sharp edges, blind and tapped holes, threads, grooves and recesses.

During the process, nickel is combined with phosphor which results in a high phosphorous nickel plating, which gives excellent corrosion resistance combined with an excellent appearance (looks like stainless), and is ideal for food or sanitary applications where mild alkali and detergents are used as wash down agents.

