

UP-2

IMI STI's model UP-2 is an analog positioner available in pneumatic and electro-pneumatic versions. The positioner has a heavy duty design making it suitable for use in very harsh conditions. It is used as the control part of the pneumatic valve set in oil and gas, refining, chemical, power, metal production and other fields with automated systems. The UP-2 pneumatic version accepts a 3-15 psi (0.2-1 bar) signal and the electro-pneumatic version a 4-20 mA signal. The positioner is based on the balanced-forces principle with air distribution to the actuator chambers carried out by an internal spool.

UP-2 is designed to be used on linear actuators (with a minimum stroke of 8 mm) or on rotary actuators which use different feedback systems such as the lever or motion converter MC model.

The positioner is a double acting positioner but it can also be used as single acting. It is equipped with a different linear cam (angle up to 270°) to allow use on actuators with different strokes. The cam operating angles and range adjustments are printed on the positioner. Special cam profiles are available on request.

The UP-2 NC 1/4" is available with a bypass valve between the actuator chamber connections. This is built into the change-over system so the actuator action can be changed without having to rebuild the piping.

The positioner is available in different models: the UP2/L (for lever applications), the UP-2/R (for rotary applications). There are different sizes (ND 1/4" or ND 1/2") and the positioner can come with or without an integrated air-lock device (the AL model), with a lever or bare shaft, standard or Namur.



Metallic case

Key features and benefits

- > Metallic case
- > Heavy duty design
- > High reliability
- > Integrated bypass only for ND 1/4" version
- > Action inversion without tubing inversion only for ND 1/4" version
- > Split range signal
- > Special characterisation/range
- > Suitable for large size/fast stroking actuator
- > Available with a full stainless steel spool valve for ND 1/4"
- > Full stainless steel spool valve for ND 1/2"
- > Visual position indicator
- > Suitable for:
 - Standard, offshore, sandstorm, copper free ambient conditions
 - Single and double acting actuators
 - Low and high ambient temperature



UP-2/R pneumatic version

Accessories

- > Air-lock ND 1/4" or ND 1/2" integrated
- > Electro-pneumatic version available - intrinsically safe and explosion proof for ATEX execution
- > Change-over system with by-pass valve only for ND 1/4" size pneumatic
- > 1/2" NPTF connections for quick operating times of large actuators pressure gauges
- > VDI/VDE 3845 EN 15714-3 connections (NAMUR)

Technical specifications

Housing materials

Aluminum painted Jet Black RAL 9005
Cover polycarbonate

Operating pressure

P min = 2.5 bar
P max = 7 bar
Design pressure = 10 bar

Static air consumption

ND 1/4" 1.02 Nm³/h (0.6 SCFM) at 400 kPa (60 psi)
ND 1/2" 1.3 Nm³/h (0.8 SCFM) at 400 kPa (60 psi)

Static air consumption (I/P converter)

+0.09 Nm³/h (0.06 SCFM)

Feeding connection

ND 1/4"
ND 1/2"

Output connection

ND 1/4"
ND 1/2"

Pilot signal connection

1/8" NPTF

Electrical connection (I/P converter)

ND 1/2" NPTF

Enclosure degree of protection

IP65

CV max

ND 1/4" Inlet = 0.34
ND 1/4" Outlet = 0.34
ND 1/2" Inlet = 0.637
ND 1/2" Outlet = 0.79

Operating temperature

-20°C / +70°C
-40°C / +85°C available on request

Signal

3-15 psi
4-20 mA

Sensitivity

0.15% of full range

Linearity

1% of the full range with linear cam

Hysteresis

0.5% of the full stroke

Weight

UP-2 ND 1/4" = 3.9 kg
UP-2 ND 1/2" = 4 kg
UP-2-EP ND 1/4" = 4.4 kg
UP-2-EP ND 1/2" = 4.5 kg

Dimensional drawing

