Process Automation

IMI STI

UP

Analog Positioner





Breakthrough engineering for a better world



UP

Analog Positioner

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.

Product features and benefits

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:

Sensitivity

Linearity

Hysteresis

Weight

0.15% of full range

0.5% of the full stroke

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

Standard, sandstorm, copper free ambient conditions.

Single and double acting actuators.

Low and high ambient temperature.

1% of the full range with linear cam

Technical specifications

Housing materials Aluminum painted Jet Black RAL 9005 Cover polycarbonate

Operating pressure P min = 2.5 bar P max = 7 barDesign pressure = 10 bar

Static air consumption NPTF 1/4"1.02 Nm³/h (0.6 SCFM) at 400 kPa (60 psi) NPTF 1/2" 1.3 Nm3/h (0.8 SCFM) at 400 kPa (60 psi)

Optional Accessories

1/2" integrated.

ATEX execution.

Air-lock ND 1/4" or ND

Electro-pneumatic version available - intrinsically safe

and explosion proof with

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

size pneumatic.

Change-over system with

1/2" NPTF connections for

by-pass valve only for ND 1/4"

quick operating times of large actuators pressure gauges.

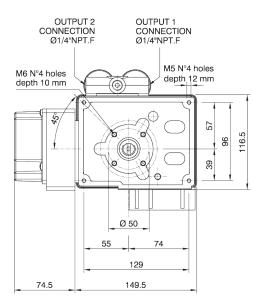
Enclosure degree of protection IP65

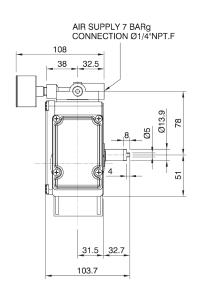
CV max ND 1/4" Inlet = 0.34 ND 1/4" Outlet = 0.34 ND 1/2" Inlet = 0.637 ND 1/2" Outlet = 0.79

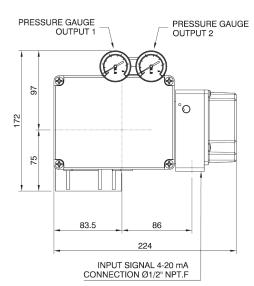
Operating temperature -20°C / +70°C -40°C / +85°C available on request



Dimensional drawing







Signal 3-15 psi 4-20 mA

VDI/VDE 3845 EN 15714-3 connections (NAMUR).

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