

Process Automation

IMI STI

FT

FasTrak Smart Positioner





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The FasTrak smart positioner is a high-capacity, high-precision digital-pneumatic valve controller that replaces conventional positioners. It provides excellent dynamic performance and high flow ($C_v = 2$) and configuration and calibration is performed by a HART™ device or by self calibration. The smart positioner is compatible with single and double acting actuators, with or without a spring, piston or diaphragm.

Product features

The unique design allows high speed performance in large volume actuators without additional amplification (e.g. booster or quick exhaust).

Self calibration on double acting piston, diaphragm, rotary actuator with or without spring; patented adjustable independent control parameter to open and close stroke.

Not sensitive to radial and axial external load caused by mounting and linkages.

The IP66 protection and unique exhaust protection system makes it suitable to be installed in harsh environments where there is tropical rain, dust, sand, salt.

4-20 mA position feedback. Digital inputs for configurable trips. Digital outputs configurable for limit switches and/or alarm.

Dedicated software (RCFT) to set, customize, control and monitor high dynamic performance.

4-20 mA control and power with HART™ communication protocol.

High speed serial connection.

CE EUROPEAN DIRECTIVE.

Intrinsically safe (Ex ia) / Explosion proof (Ex d [ia]) according to:

ATEX
IECEX
GOST
SANS
INMETRO
ECASEx
AAA
ETL - C
CCoE
KOSHA
CCC
CU TR
CSA - Us
UKCa

Technical specifications

Connection

Power	2 wire from signal (min 3.5 mA, 12/30 Vdc)
Electrical connections	Signal ½" NPT (or metric M20x1.5 on request) Auxiliary input / output ½" NPT (or metric M20x1.5 on request)
Pneumatic connections	½" NPT female
Communication protocol	HART™ TTL RS232

Input

Signal	4-20 mA with HART™ protocol Configurable split range
On off	Nr 2 configurable digital (optocoupler 24Vdc)

Output

Position	4-20 mA passive loop
On off	Nr 2 configurable digital (optocoupler 24Vdc)

Stroke Movement

Feedback angle of rotation	30°/120° (<30° with lower resolution)
Adjustable speed	Range 0/300 seconds, individually configurable for each direction
Characteristic curve	Linear Equal percentage Configurable
Control parameter	Individually configurable for each direction
Travel control	Minimum and maximum settable stroke limits Adjustable thrust on seat

Air Supply

Instrument air	Free of oil, water and dust to ISO 8573-1 - Class 3
Supply pressure	2.5÷10 bar
Air consumption	1.5 Nm³/h at 6 bar

Performance Data (for angle > 90°) According to IEC 61514-2

Hysteresis + deadband	±0.15%
Repeatability	±0.15%
Sensitivity	±0.1%
Linearity	±0.3%
Influence of ambient temperature	0.3% for every 10°C
Air capacity	Up to 180 Nm³/h at 6 bar (CV 2.3)

Environmental Capabilities

Ambient	Protection IP66 NEMA 4X Operation temperature -40° to +80°C -50° to +80°C for CUTR
Humidity	Up to 100%
Vibrations	Up to 2g (ISA S75.13)
CE mark	CE conformity and EMC

Materials

	Aluminium
	Stainless steel feedback shaft
	Fully stainless steel 316

Weight

	Aluminium (Ex ia) 3.25 kg
	Aluminium (Ex d) 4.11 kg
	Stainless steel 316 (Ex ia) 8.82 kg
	Stainless steel 316 (Ex d) 10.78 kg

Optional accessories

Remote feedback sensor.
Universal linkage for:
linear long stroke actuator
(70÷1700 mm).

VDI/VDE 3845 for rotary
applications.

Lever for side yoke or top
mounting application.
customized application.

Directly mounted pneumatic
accessories:
gauges and lock up valve.

Collected or high silenced
exhaust.

High speed communication
kit.

High corrosion resistance.

Fail in place version.

Advanced diagnostic with
option pack.

Display and push button.

Low bleed version.



Benefits

No need for an amplification
device in most applications.

Superior control capacity of
amplification device when
installed.

High flow with quick, precise
complete control capability.

Powerful self calibration
software with the ability
to totally personalise the
parameters.

Wide set of configurable
embedded features.

Robust design with a full
metal housing.

Remote control software interface

User friendly interface with all
key parameters shown
on one screen.

Tool for easy mechanical
feedback alignment.

Self calibration wizard.

All parameters with full
control via an interactive start
up page.

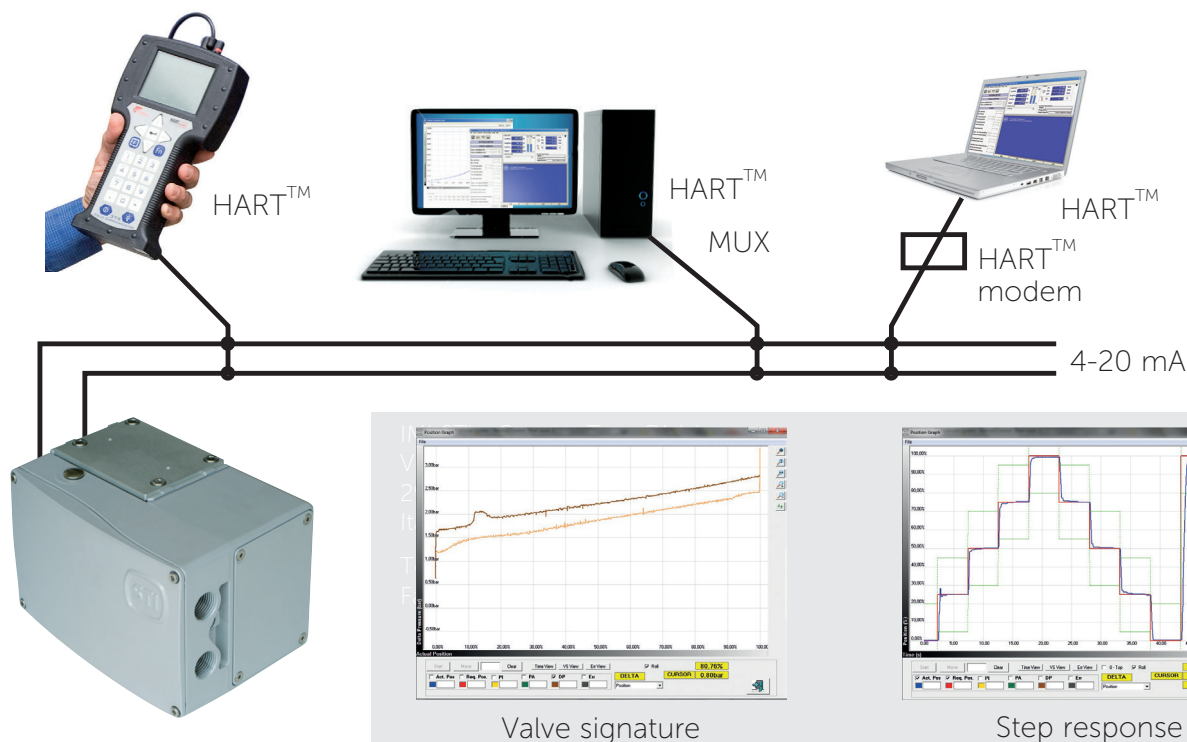
Graph tool for performance
monitoring with
configurable parameters.

Events and errors report.

Certified HART™ protocol
communication 375/475
handheld compliant.

Option Pack 1 Advanced
diagnostic: Valve signature -
Step response.

Option Pack 2 Advanced
feature: Stability control -
Soft approach to seat
frequency response analysis.



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