



Cert. No. LRQ 0963008

ISO 9001

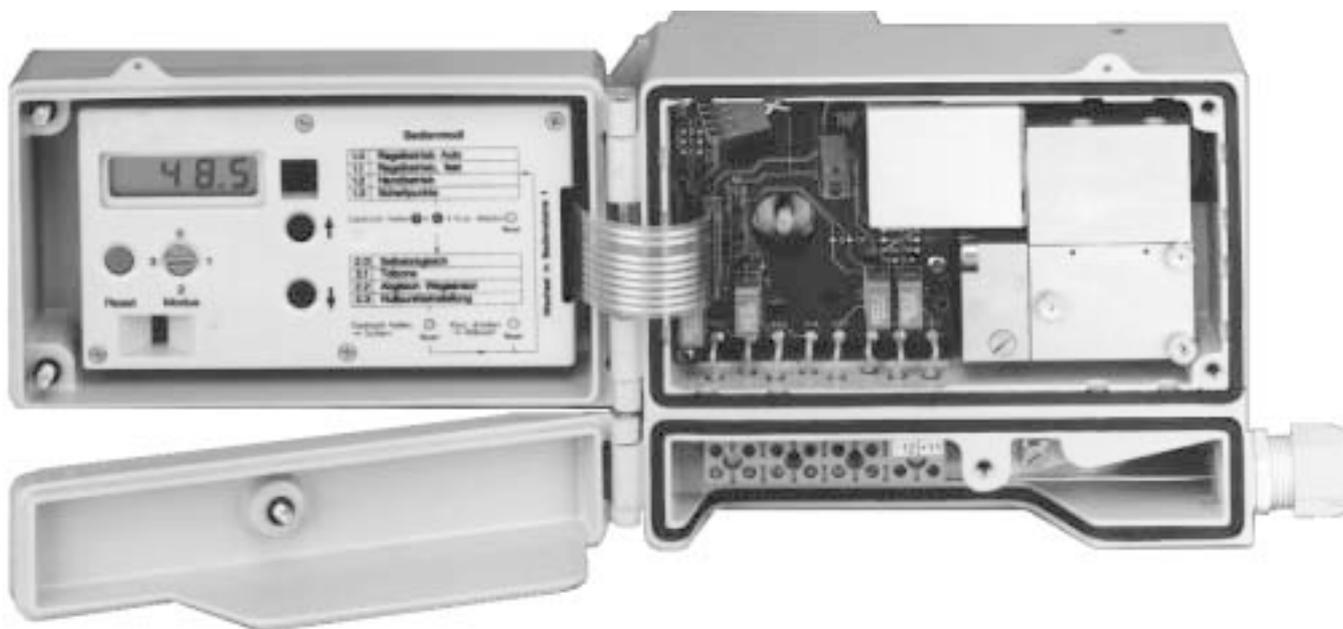
# spirax/sarco

TI-P343-10

CH Issue 2

## SP1

## Smart Positioner



### Description

The SP1 is a Smart valve positioner requiring a 4-20 mA input signal, and is for use with linear pneumatic actuators. The positioner compares the electrical signal from a controller with the valve position feedback, and varies a pneumatic output to the actuator accordingly. The exact relationship between the input signal and the valve position is programmable, and the most important parameters may be readily modified using the push buttons provided on the positioner. Alternatively, operating parameters may be modified and monitored locally from a personal computer via the RS 232 interface with the LKS adapter. Additionally, HART® communications can be made available to special order.

SP1 is supplied together with a NAMUR standard mounting kit for attachment to yoke or column actuators.

### Applications

The SP1 can be used with the following actuators:

Actuator types	PN5000 series (see TI-P357-03)
	PN6000 series (see TI-P357-02)

### Optional extras

The following accessories are available on request at extra cost:

#### IBIS communications software

LKS adapter to link SP1 to a personal computer

### Materials

Case	Material	Low magnesium die-cast aluminium (A1 Si12)
	Finish	Painted blue to RAL 5010

### Air supply

SP1 must be provided with a high quality air supply. Use of a Spirax Sarco MPC2 coalescing air filter regulator will ensure this can be achieved. A fixing kit is available to mount the MPC2 air filter/regulator to the pneumatic actuator.

Fixing kit	Actuator type
FK21	PN5100 to PN5400
FK28	PN5500 to PN5600

### Technical data

Input signal range	4 - 20 mA nominal
Signal voltage span	10 - 29 Vdc
Supply pressure	1.4 bar g air - oil, water and dust free (To DIN/IEC 770)
Output pressure	0 - 100% supply pressure
Stroke range	10 mm to 85 mm
Action	Single action - fail-safe
Operating and storage temperature	-40°C to +85°C
Maximum air flowrate	5.5 kg/h @ 1.4 bar g 13 kg/h @ 6 bar g
Own air consumption	Less than 0.02 kg/h @ 1.4 bar g supply
Air connections	Screwed 1/4" NPT
Electrical connection	Internal screw terminals for 2.5 mm <sup>2</sup> wire and 1 x Pg 13.5 screwed
Enclosure rating	IP65
Communications	RS 232 interface as standard. HART® to special order
Characteristics provided	Linear Equal percentage 1:25 - 1:50 - 25:1 21 point user programmable
Resolution	8000 steps (13 bit a/d)
Scan time	20 ms
Shipping weight	4.3 kg
Packing	Supplied in plain cardboard carton complete with mounting kit and 'Installation and Maintenance Instructions'.

Local regulations may restrict the use of this product to below the conditions quoted.

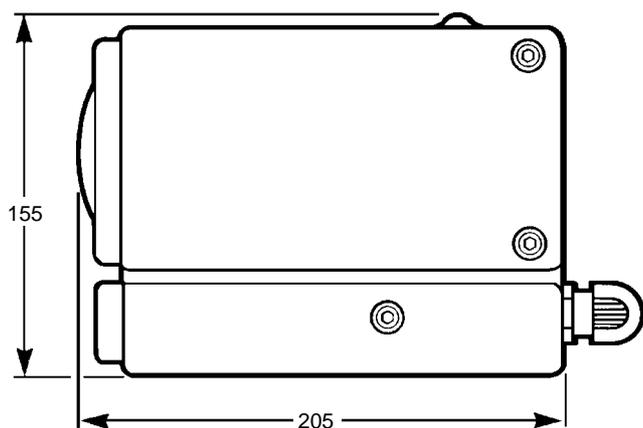
In the interests of development and improvement of the product, we reserve the right to change the specification.

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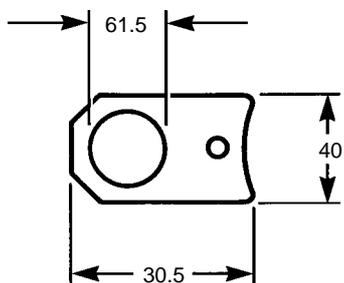
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## Dimensions (approximate) in millimetres

Front view of positioner



FK21 / FK28 fixing kit



## Installation

Full details are contained in the relevant Installation and Maintenance Instructions supplied with the product.

## How to order

**Example:** 1 off Spirax Sarco SP1 Smart positioner complete with fixing kit for linear valves.

**Note:** Accessories referred to above must be ordered separately if required.