

Actual-position Feedback Unit

SISTO-SK-i

For Valves with Linear Actuators
Stroke: 5-46 mm

Type Series Booklet



The SISTO logo is rendered in a bold, blue, sans-serif font.

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Type Series Booklet SISTO-SK-i

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Actual-position Feedback Unit

For Valves with Linear Actuators

SISTO-SK-i



Product description of SISTO-SK-i

SISTO-SK-i is a smart actual-position feedback unit for valves with linear actuators. Valve position is indicated visually and clearly by means of coloured LEDs. User-friendly setting of limit positions by automatic initialisation on site or via the process control system.

SISTO-SK-i continuously records valve travel and comprises a microcontroller-based analysing unit. Valve position is signalled optically by the device LEDs and electrically via digital outputs.

SISTO-SK-i is connected via an M12 plug connector and is ready for operation as soon as initialisation is complete.

Product benefits

- Pushbuttons for easy on-site operation
- Remote initialising possible
- Optional AS-i field bus connection
- Smooth surfaces are easy to clean

Main applications

- Process industry
- Food and beverages industry
- Pharmaceutical industry
- Biotechnology
- Chemical industry/Fine chemicals

Operating data

Operating properties

Characteristic	Value
Stroke	5 - 46 mm
Max. permissible temperature	-30 °C to +60 °C

Design details

- Compact actual-position feedback unit for mounting onto linear valve actuators
- Continuous valve travel recording via microcontroller
- Open/closed-position feedback
- 4 LEDs for status and position indication
- Electrical connection using M12 plug(s)
- Digital fault output

Directives

Electromagnetic Compatibility 2004/108/EC Directive

EC Low Voltage Directive 2006/95/EC

Standards

Enclosure to EN60529 IP64

Safety class to EN61140 Safety class III

Materials

Overview of available materials

Description	Material	Material number
Housing	Black plastic	PA66-GF30
Electrical connection M12	Stainless steel	1.4404

Variants

- Integrated 3/2-way solenoid valve
- Stainless steel housing (1.4404)
- Connection via AS interface

Ordering information for SISTO-SK-i / SK-i AS-i:

Design	
S0	Actual-position feedback unit 24V
S5	Actual-position feedback unit 24V with solenoid valve
A0	Actual-position feedback unit AS-i
A5	Actual-position feedback unit AS-i with solenoid valve

Material	
K0	Plastic PA66-GF30
00	Stainless steel 1.4404

For mounting on	
00	SISTO-B / SISTO-C
02	Valve with linear actuator - rod diameter 4 x 55

Ordering example: SK-i S0 K0 02

1. Design: Actual-position feedback unit 24V
2. Material: PA66-GF30
3. For mounting on valve with linear actuator - rod diameter 4 x 55

Related documents

- Operating manual 8676.81

Technical data

Technical data of SISTO-SK-i 24V

Electrical data	
Connection	8-pin M12 round plug connector
Power supply	24V +/- 10 %
Current requirement	Approx. 80mA
Duty ratio	100 %
Digital outputs	24V, max. 100mA, short-circuit-proof
	Open
	Closed
	Fault
Digital inputs	24V, Low: 0-3V, High: 18-24V
	Remote initialisation

Indicator and operating elements

Function

 Power
 Open
 Closed
 Fault

LED colour

 Green
 Orange
 Yellow
 Red

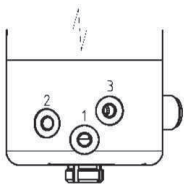
Pin assignment of SISTO-SK-i 24V

PIN

 1
 2
 3
 4
 5
 6
 7
 8

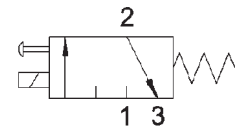
Assignment

 +24V
 DO Open ¹⁾
 0V
 DO Closed ¹⁾
 DI Teach-in ²⁾
 DI Solenoid valve ²⁾³⁾
 DO Fault ¹⁾
 -

Pneumatic connection

Connection

 1
 2
 3

Assignment

 Air supply
 Actuator
 Air outlet

Supplementary technical data for SISTO-SK-i solenoid valve

Electrical data	
Current requirement	Approx. 35mA
Pneumatic data	
Connection	Internal thread M5
Flow rate	15l _N /min.
P max	10 bar
Compressed air quality	ISO 8573-1 3/3/3
Materials	
Pneumatic connection	1.4404

¹⁾ Digital output

²⁾ Digital input

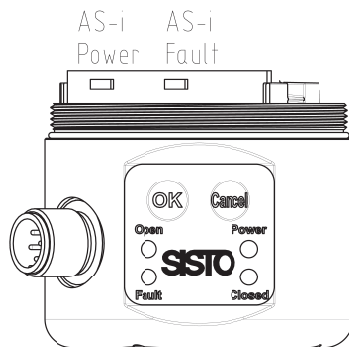
³⁾ With integrated solenoid valve only

Technical data

Technical data of SISTO-SK-i AS-i

Electrical data	
Connection	5-pin M12 round plug connector
Power supply	26.5 - 31.6V
Current requirement	Approx. 110mA
Duty ratio	100 %
AS-i specification	V3.0
AS interface profile	
I/O configuration	7
ID code	A
ID1 code	*
ID2 code	E

Indicator and operating elements



Function

Power
Open
Closed
Fault
AS-i-Power
AS-i-Fault

LED colour

Green
Orange
Yellow
Red
Green
Red

Pin assignment of SISTO-SK-i AS-i



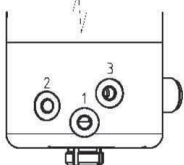
PIN

1
2
3
4
5

Assignment

AS-i +
-
AS-i -
-
-

Pneumatic connection

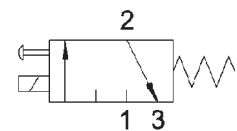


Connection

1
2
3

Assignment

Air supply
Actuator
Air outlet



Supplementary technical data for SISTO-SK-i AS-i solenoid valve

Electrical data	
Current requirement	150mA max.
Pneumatic data	
Connection	Internal thread M5
Flow rate	15l _N /min.
P max	10 bar
Compressed air quality	ISO 8573-1 3/3/3
Materials	
Pneumatic connection	1.4404

Inputs and outputs of SISTO-Sk-i AS-i

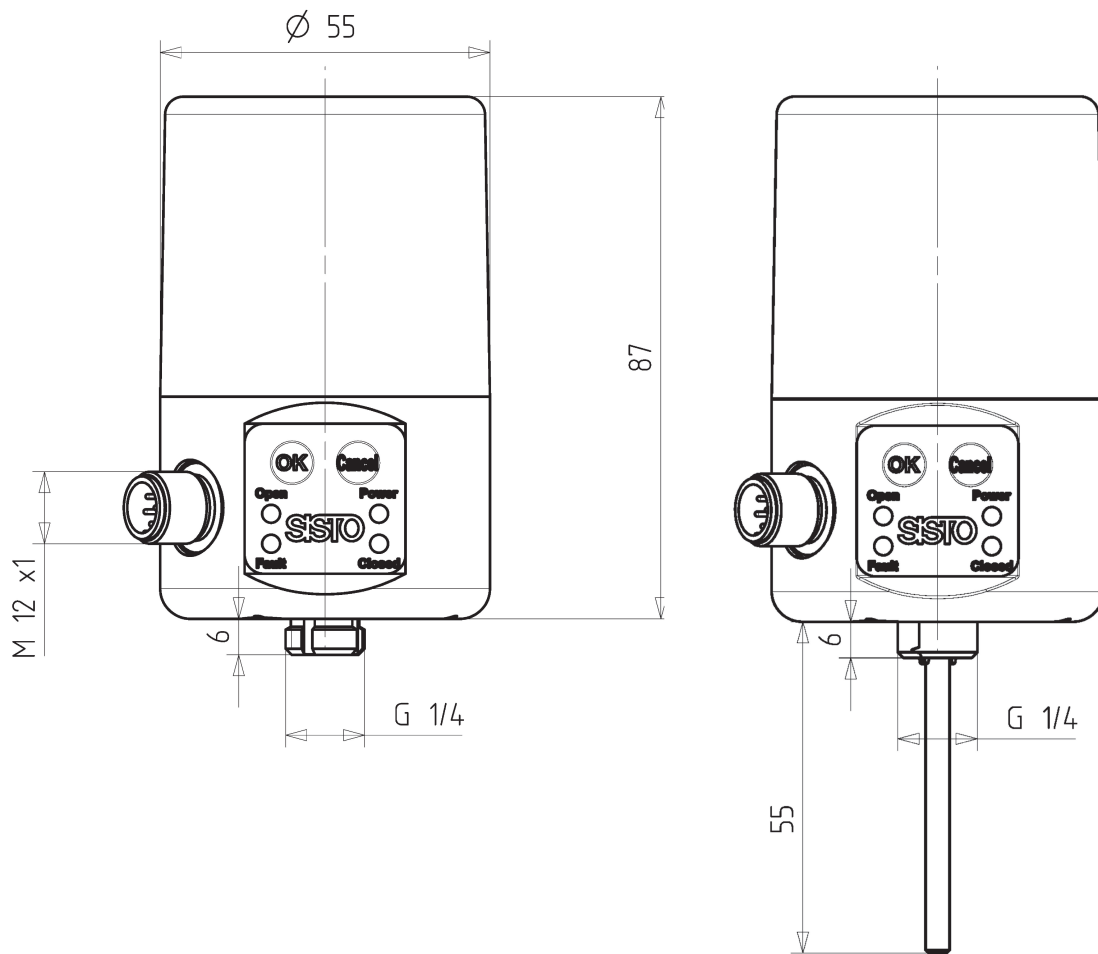
Inputs (AS-i master perspective)		
DI0	OPEN position	0 = "Not open" position 1 = "Open" position
DI1	CLOSED position	0 = "Not closed" position 1 = "Closed" position
DI2	Ready	0 = Normal operation 1 = Initialisation mode
DI3	Fault	0 = Normal operation 1 = Fault Alternating at 1 Hz = Valve not initialised
Outputs (AS-i master perspective)		
DO0	Operate valve	0 = Pilot valve not operated (if applicable) 1 = Pilot valve operated
DO1	Not connected	
DO2	Activate teach-in	0 = Normal operation 1 = Initialisation mode
DO3	Not connected	

Dimensions

Dimensions in mm

SISTO-B / SISTO-C

Mounting on valves with linear actuators



Mechanical data

Mechanical data of SISTO-SK-i / SK-i AS-i

Dimensions	[mm]
Diameter	55
Height	87
Stroke	5 - 46

Valve (actuator) connection	[inch]
Thread	G $\frac{1}{4}$

Weight	[g]
PA66-GF30	170
1.4404	470



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