Digital Positioner 8049-IPC

with integrated process controller

Compact digital positioner for pneumatic valves with integrated process controller.

- Combination of positioner and process controller
- Compact solution for local control tasks
- Suitable for fast controlled systems
- Cycle time selectable between 25ms, 50ms, 100ms, 200ms and 500ms
- Internal or External setpoint specification
- Clearly legible display
- Sensor signal: Current interface and Pt100
- Can be configured as P-, PI-, PD- and PID-controller
- Integrated stroke feedback without exposed parts
- Big stroke range 3 - 28 / 3 - 50 mm
- Self learning adaption to valve actuator
- Configuration and diagnostic functions via PC software or directly on the display
- Not vulnerable to vibrations
- Protection class IP 65
- Also available for part turn actuators (single or double acting)

Technical Information

nominal stroke	0.12 - 1.10“ / 0.12 - 1.97“
voltage of the working resistance	2,5 V (125Ω@20mA)
ambient temperature	+14 up to +165°F
Control variable (actual value)	0/4 - 20 mA, PT100 (2 or 3-wire)
Reference variable (set point)	via keyboard or 0/4 - 20 mA, 0/2 - 10 V
Control behaviour	P (with working point y0) PD (with working point y0) PI PID
Accuracy	≤ 0,5% of the end value
Alarm output	absolut direct/invers, realtiv direct/invers, Band direct/invers
auxiliary energy, electric	24 VDC max. 10 W
adjustment of stroke and zero point	self-learning
configuration	Directly on the display or via PC software
auxiliary energy, pneumatic	max. 87 psi
unrestricted air capacity *	40 Nl/min
stationary air consumption *	< 0,06 Nl/min
Leakage	< 0,01 Nl/min
air quality according ISO 8573-1: max. particle size and density oil content pressure dew point	 Class 5 Class 4 Class 3 min. 20K (36°F) under ambient temperature
Actuation gas	compressed air or non flammable gases (nitrogen, CO2,…)
mounting to control valve	standardized mounting kits (also with optical position indicator)
pressure supply port	NPT 1/8“
Max. Connection cross-section	0,002
protection class acc. DIN 40050	IP 65

* at 73 psi pilot pressure

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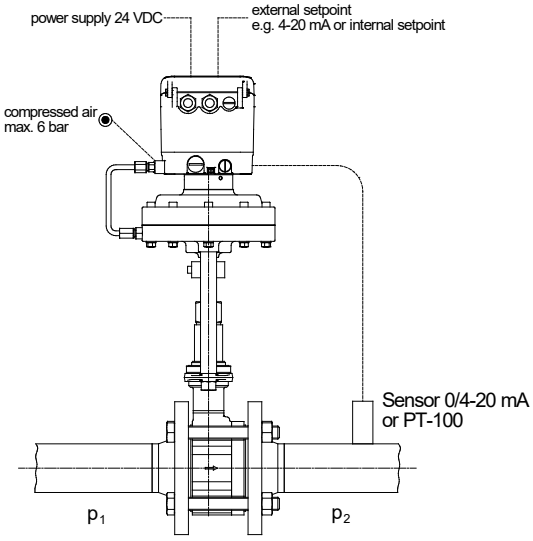
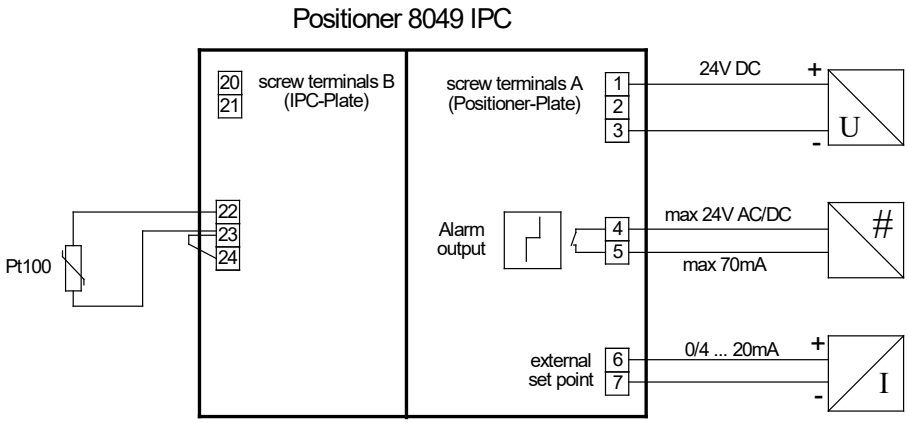
Digital Positioner 8049-IPC

Functional description

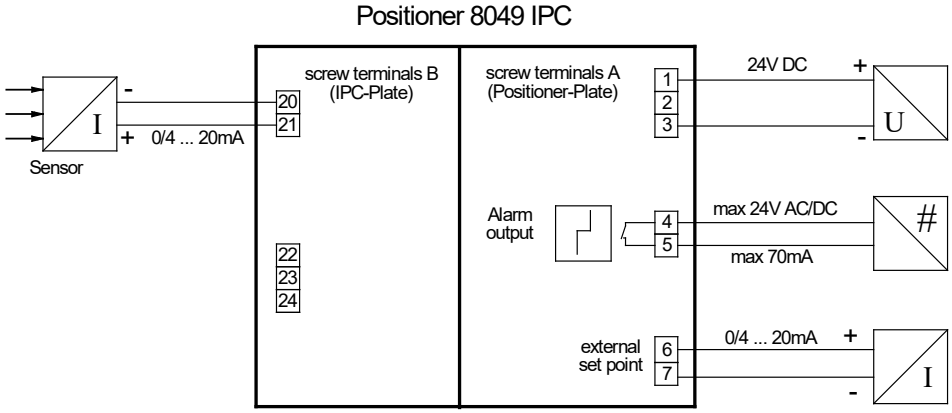
The 8049-IPC with integrated process controller offers a solution for demanding control tasks without higher-level process control systems. The basis of the 8049-IPC is the proven positioner 8049 in the 4-wire version. One additional IPC-module in the cover plate of the basic unit forms the complete unit of the 8049-IPC. The connection of a process sensor as reference variable, optionally as 0/4-20 mA sensor or PT-100 element, is made directly at the 8049-IPC. The setpoint can be specified either externally or directly on the controller display.Scaling of the 8049-IPC as a P, PI, PD or PID controller offers the optimum solution for every process, especially in combination with valve technology from Schubert & Salzer. The process-related control parameters can be set either directly on the 8049-IPC or via the software DeviceConfig. Based on the control parameters, the IPC module calculates the difference between the reverence variable and the setpoint. In parallel, the process controller supplies the positioner within a vairable cycle time with the control signal required for positioning. Thus, each control difference results in a change of the valve stroke.



Connection example Pt-100



Connection example mA-sensor



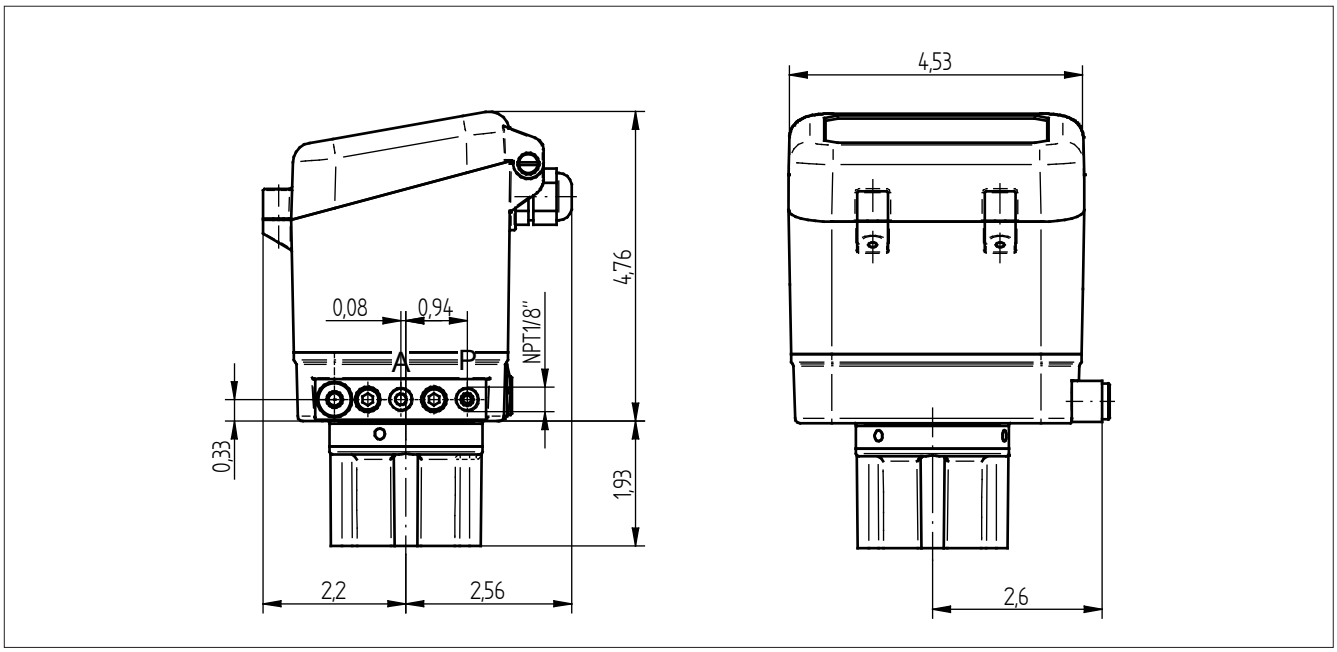
Ordering number system

quote only if required

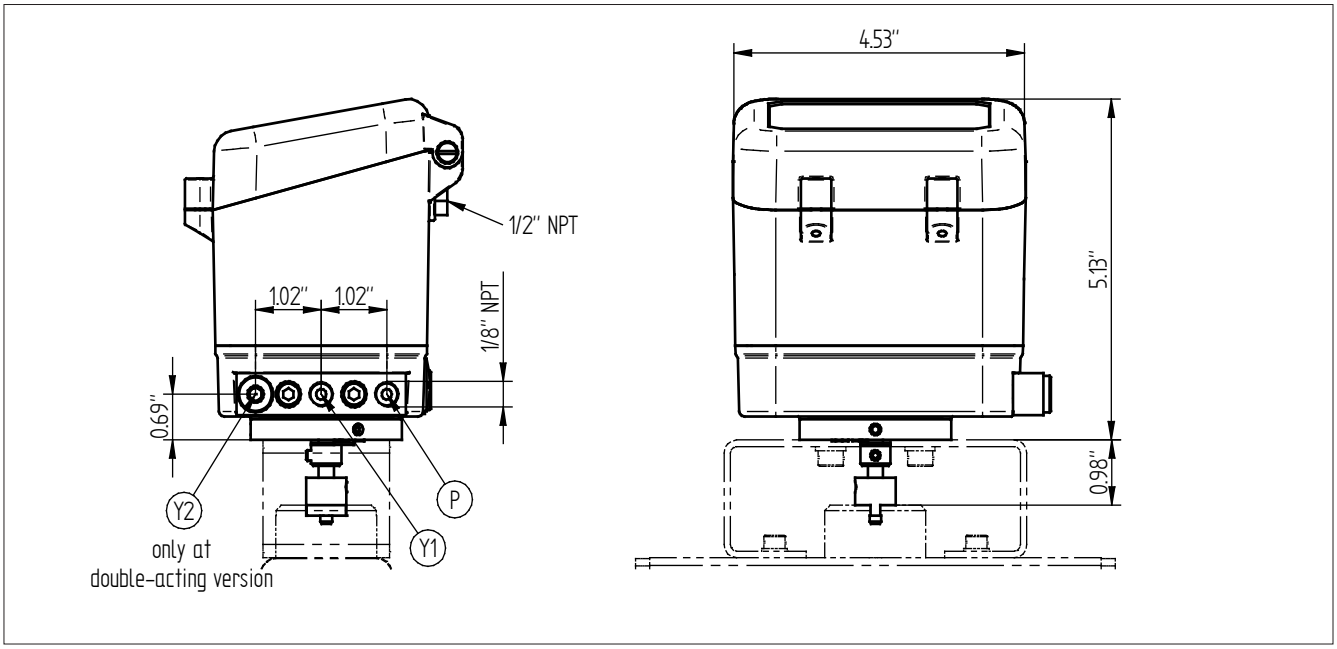
8049/		-						-			-			S		-	
Basic design																	
dig. positioner 8049-4 (version 6)	4P6																
For acutator																	
single acting			1														
double acting			2														
Air delivery																	
standard				S													
high				H													
Body																	
aluminium / plastic					0												
stainless steel ground plate					1												
body in stainless steel					2												
Electro-pneumatic connection																	
cable bushing 2 x M16x1,5						0											
NPT-thread 1/2“						1											
plug connection M12x1, 5-pin						2											
Pneumatic connection																	
Cable Bush 2 x M16x1,5 + 1 x M12x1,5							0										
NPT 1/8“							1										
Position measuring																	
linear potentiometer without sensing pin								0									
linear potentiometer with standard sensing pin (L=3,92“)								1									
linear potentiometer with curtated sensing pin (L=3,72“)								G									
rotary potentiometer for semi-rotary drive								2									
EMV-galvanic separating module for exterior path sensor								3									
Optical indicator																	
without indicator									0								
indicator disc for sensing pin in PA									1								
indicator disc for sensing pin in metal									2								
rotation angle indicator									3								
Auxiliary module																	
IPC-process controller											C						
Accessories																	
without accessories												0					
gauge bloc single acting, scaling in bar and PSI												1					
optical position indicator for rotating actuators												2					
Further details																	
special design (quote only if required)														S			
positioner montage (only for the manufacturer)														M			
Settings																	
standard															-		
settings on customer request															1		
Special design																	
without																-	
separated version incl. exterior path sensor for lift drive																1	

Dimensions

For linear actuators



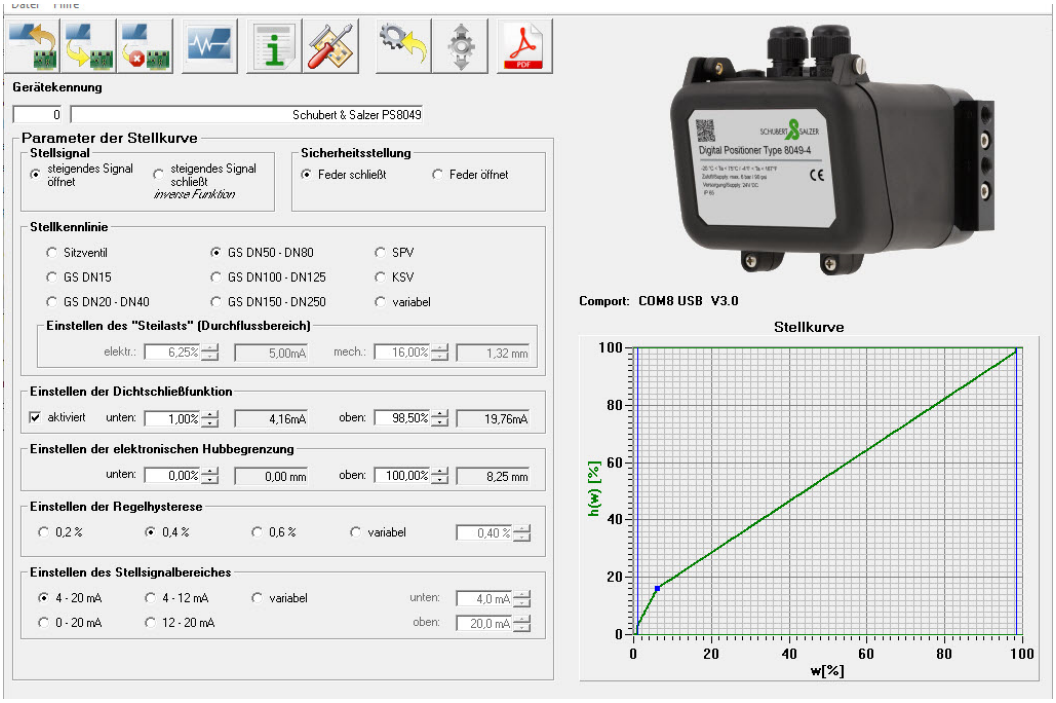
For quarter-turn actuators



Configuration-Software „DeviceConfig“

Setup-Parameters

Adjustment of control parameters (input signal, stroke limitation, closing function, control hysteresis, valve function, etc.)



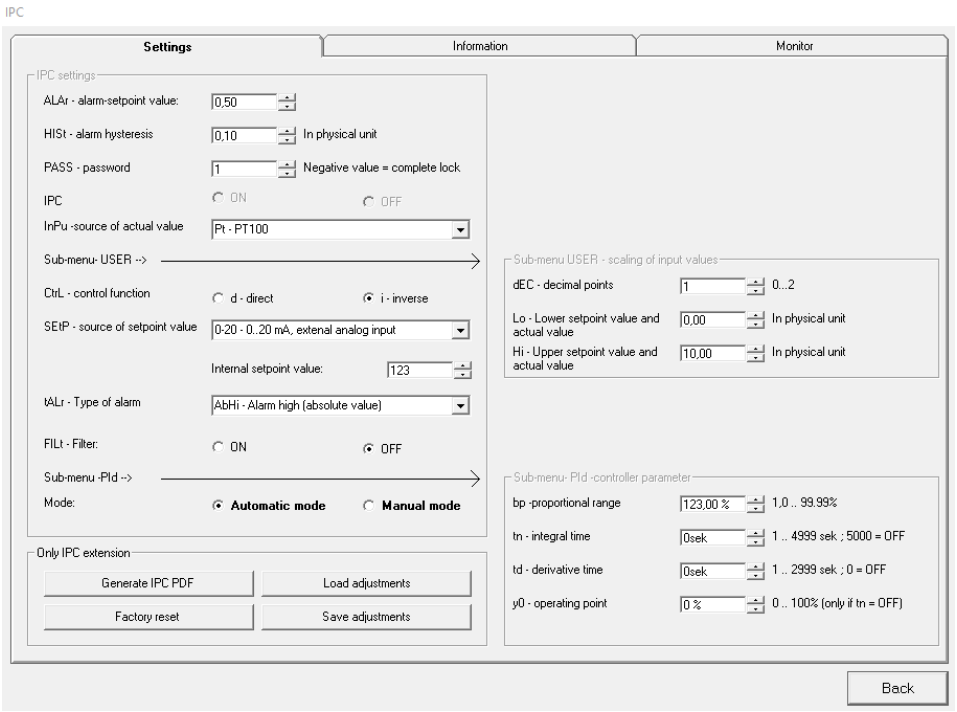
Live-Monitor

The operating conditions of the positioner, can be viewed with the live monitor.

Configuration-Software „DeviceConfig“

Settings of the IPC-Modul

parametrization of the IPC-module



Diagnostic data

Informations of valve stroke,running time, soft- and hardware-versions, achieved temperature- and stroke levels, error messages, number of cycles, operating hours...