



## PAC50

Turns pressure into colors

**PRESSURE SENSORS**

**SICK**  
Sensor Intelligence.

## Advantages



## Strikingly visible: The PAC50 shines in pneumatics

Optimal monitoring of relevant process parameters is essential for increasing the efficiency of pneumatic processes and conserving resources. That's why SICK offers a wide range of electronic pressure transmitters and pressure switches.

The PAC50 electronic pressure switch is designed for pneumatic applications. Thanks to its three large function buttons and large display, it is easy to use. Processes are very easy to read on the display: The colors of the digits change when the set switching points are reached. This means the respective output state can be recognized even from a distance. The PAC50 can be used flexibly thanks to its measuring ranges for positive and negative pressures. The pressure switch is also produced free-of paint wetting impairment substances (PWIS-free). The PAC50 has a dust- and waterproof housing. In addition, the optional IO-Link interface ensures good networking. – Impressive advantages.

## Why the PAC50 offers more at first glance



Due to the large color display, the output state is clearly visible, even from a great distance.



Three large function keys and intuitive menu navigation make operation very easy.



The dust- and waterproof housing is ideal for use in industrial environments.



**With its positive and negative pressure ranges, the PAC50 is suitable for many different applications: It monitors the compressed air supply of systems, measures the system pressure in pneumatic controls or determines the suction pressure in vacuum grippers.**

## Leak measurement made easy

In factory automation, compressed air is among the most expensive forms of energy. To save costs, you must ensure that leaks in compressed air systems are detected as quickly as possible.

The PAC50-FGG (Leakage Tester) variant provides a cost-effective solution for detecting leak in compressed air systems. Basically, the sensor monitors the pressure drop over a preset period of time. The pressure switch enables a high degree of automation while doing so: The measurements can be started either automatically via a PLC or manually. The PAC50-FGG con-

trols a valve via the output signal, puts the system in a locked state, and shows on the display the pressure drop, the period of measurement and – if the volume of the measured system is known – also a leakage rate in L/min. Depending on the presetting of the pressure switch, a signal regarding the measured time period or the pressure difference can be output via the analog output. At the same time, the sensor also retains its function as a simple pneumatic pressure switch.





### Technical data overview

<b>Device type</b>	Pressure switch
<b>Measuring ranges</b>	Gauge pressure -1 bar ... 0 bar; -1 bar ... +1 bar; 0 bar ... +6 bar; 0 bar ... +10 bar; -1 bar ... 10 bar
<b>Accuracy</b>	≤ ± 1.5 % of the span
<b>Setting accuracy of switching outputs</b>	≤ ± 0.2 % of span
<b>Output signal</b>	Configurable switching outputs PNP, NPN or push-pull analog output signal plus optional IO-Link
<b>Electrical connection</b>	Round connector M12 x 1



### Product description

For improved monitoring of air pressure, the PAC50 electronic pressure switch from SICK offers more at a glance – the large bi-color display allows you to identify from a distance if the pressure falls within the target range. Three large function keys and intuitive menu navigation make operating the PAC50 easy.

What makes the PAC50 so special? It offers up to two digital switching outputs and an optional analog output in just one device. The output signals can be easily adjusted to the available control system. Thanks to the optional IO-Link, the controller or PLC can quickly and accurately pass the device parameters to the sensor when changing the format or replacing the sensor, which significantly reduces downtime. The PAC50 is ideal for use in industrial environments due to its waterproof housing with an IP 65/ IP 67 enclosure rating.

### At a glance

- Large display shows system pressure, output states, and switching points
- Three large function keys, intuitive menu navigation
- Measuring range for gauge pressure (vacuum and overpressure)
- Two independently programmable switching outputs, optional analog output
- Installation on mounting rail, wall or switch panel
- Variant for leakage monitoring
- IO-Link

### Your benefits

- Bi-color display (green/red) clearly shows the status of the output signal (within or outside the target range)
- Quick overview of important system parameters due to advanced display functions
- Intuitive operation allows simple and quick commissioning
- Pressure connections on the back and bottom and configurable output signals for a high level of installation flexibility
- High reliability thanks to the rugged design (IP65 and IP67 enclosure rating) and proven technology
- Less variants for different requirements and lower inventory costs
- Convenient, cost-effective solution for leakage measurement

### Fields of application

- Compressed-air monitoring and measurement in machines and systems
- Pressure measurement in air and in dry, non-corrosive gases
- Pressure measurement on compressed-air maintenance units
- Vacuum monitoring in handling and robotics applications
- Leakage monitoring in closed compressed air systems

## Type code

Other models and accessories → [www.sick.com/PAC50](http://www.sick.com/PAC50)

### Type code

#### Measuring range / Overload protection

A	-1 ... 0 bar / 5 bar
B	-1 ... +1 bar / 5 bar
C	0 ... +6 bar / 15 bar
D	0 ... +10 bar / 15 bar
F	-1 ... +10 bar / 15 bar

#### Process connection

G	Underside: G ¼ female thread; rear: G ¼ female thread
C	Underside: Push-in fitting for 4 mm pneumatic hose, rear: G ¼ female thread
N	Bottom: ¼" NPT female thread, pre-installed NPT adapter in G ¼ female thread; rear: G ¼ female thread

#### Output signals / Electrical connection

	Switching output 1	Switching output 2	Analog output	
A	PNP / NPN / Push-Pull	PNP / NPN / Push-Pull	-	/ M12 x 1, 4-pin
B	PNP / NPN / Push-Pull	-	4 ... 20 mA / 0 ...10 V	/ M12 x 1, 4-pin
C	PNP / NPN / Push-Pull	PNP / NPN / Push-Pull	4 ... 20 mA / 0 ...10 V	/ M12 x 1, 5-pin
D	IO-Link/PNP	PNP / NPN / Push-Pull	-	/ M12 x 1, 4-pin
F	IO-Link/PNP	PNP / NPN / Push-Pull	4 ... 20 mA / 0 ...10 V	/ M12 x 1, 5-pin
G	PNP	PNP / NPN / Push-Pull	4 ... 20 mA / 0 ...10 V	/ M12 x 1, 5-pin, additional function: leakage tester

PAC50 - [ ] [ ] [ ] [ ]

Not all variants of the type code can be combined!

### Ordering information

Other models and accessories → [www.sick.com/PAC50](http://www.sick.com/PAC50)

- **Measuring range:** -1 bar ... 0 bar
- **Overpressure safety:** 5 bar
- **Accuracy:** ≤ ± 1.5 % of the span
- **Process temperature:** 0 °C ... +60 °C

Process connection	Output signal	Connection type	Type	Part no.
2 x G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-AGA	1062945
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-AGC	1062947
	IO-Link/PNP + PNP/ NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-AGD	1062948
	IO-Link/PNP + PNP/ NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-AGF	1062950
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-AGB	1062946
PIF 4 mm + G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-ACA	1062951
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-ACC	1062953
	IO-Link/PNP + PNP/ NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-ACD	1062954
	IO-Link/PNP + PNP/ NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-ACF	1062957
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-ACB	1062952
¼" NPT female	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-ANA	1083719
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-ANC	1083721
	IO-Link/PNP + PNP/ NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-AND	1083722
	IO-Link/PNP + PNP/ NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-ANF	1086911
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-ANB	1083720

- **Measuring range:** -1 bar ... 1 bar
- **Overpressure safety:** 5 bar
- **Accuracy:**  $\leq \pm 1.5$  % of the span
- **Process temperature:** 0 °C ... +60 °C

Process connection	Output signal	Connection type	Type	Part no.
2 x G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-BGA	1062958
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-BGC	1062960
	IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-BGD	1062961
	IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-BGF	1062963
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-BGB	1062959
PIF 4 mm + G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-BCA	1062964
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-BCC	1062966
	IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-BCD	1062967
	IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-BCF	1062969
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-BCB	1062965
¼" NPT female	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-BNA	1083723
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-BNC	1083725
	IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-BND	1083726
	IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-BNF	1086912
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-BNB	1083724

- **Measuring range:** 0 bar ... 6 bar
- **Overpressure safety:** 15 bar
- **Accuracy:**  $\leq \pm 1.5$  % of the span
- **Process temperature:** 0 °C ... +60 °C

Process connection	Output signal	Connection type	Type	Part no.
2 x G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-CGA	1062970
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-CGC	1062973
	IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-CGD	1062974
	IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-CGF	1062976
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-CGB	1062971

Process connection	Output signal	Connection type	Type	Part no.
PIF 4 mm + G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-CCA	1062977
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-CCC	1062979
	IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-CCD	1062980
	IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-CCF	1062982
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-CCB	1062978
¼" NPT female	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-CNA	1083727
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-CNC	1083729
	IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-CND	1083730
	IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-CNF	1086913
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-CNB	1083728

- **Measuring range:** 0 bar ... 10 bar
- **Overpressure safety:** 15 bar
- **Accuracy:**  $\leq \pm 1.5\%$  of the span
- **Process temperature:** 0 °C ... +60 °C

Process connection	Output signal	Connection type	Type	Part no.
2 x G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-DGA	1062983
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-DGC	1062985
	IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-DGD	1062986
	IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-DGF	1062988
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-DGB	1062984
PIF 4 mm + G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-DCA	1062989
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-DCC	1062991
	IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-DCD	1062992
	IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-DCF	1062994
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-DCB	1062990



Process connection	Output signal	Connection type	Type	Part no.
¼" NPT female	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-DNA	1083731
	2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-DNC	1083733
	IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-DND	1083734
	IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-DNF	1086914
	PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-DNB	1083732

- **Measuring range:** -1 bar ... 10 bar
- **Accuracy:**  $\leq \pm 1.5$  % of the span
- **Process temperature:** 0 °C ... +60 °C

Overpressure safety	Process connection	Output signal	Connection type	Type	Part no.
-	2 x G ¼"	PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-FGG (Leakage Tester)	1098276

Overpressure safety	Process connection	Output signal	Connection type	Type	Part no.
15 bar	2 x G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-FGA	1077855
		2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-FGC	1077857
		IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-FGD	1077858
		IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-FGF	1086915
		PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-FGB	1077856
	PIF 4 mm + G ¼	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-FCA	1083765
		2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-FCC	1083762
		IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-FCD	1083758
		IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-FCF	1086916
		PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-FCB	1083764
	¼" NPT female	2 x PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-FNA	1083735
		2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-FNC	1083737
		IO-Link/PNP + PNP/NPN/Push-Pull	M12 round connector x 1, 4-pin	PAC50-FND	1083738
		IO-Link/PNP + PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	Round connector M12 x 1, 5-pin	PAC50-FNF	1086917
		PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	M12 round connector x 1, 4-pin	PAC50-FNB	1083736

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)