KAVLICO
Pressure Sensors

c UL us LISTED CE

Data Sheet
PS1C
Pressure Display and Switch Device

Main Features

Displayed Value Range	-14.5 to 6000 with 27 Selectable Value Ranges
Power Supply	24 VDC
Electrical Connection	M12 Female, 4 pin Output: M12 Male, 4 Pin
Digital Output	PNP or NPN, NO/NC Programmable
Output Signal	4 - 20 mA
Degree of Protection	IP65, IP67, and IP69K
Operating Temperature	-20°C to +70°C

Description

Are you looking for an easy way to read and control pressure data when the conduit is hidden from view?

Kavlico Pressure Sensors has the answer to your needs – PS1C, the simple switch with display that can be linked to a separate pressure sensor, such as Kavlico's PTE5000, P1E and P1A delivering a clear view of accurate pressure information even if the conduit runs in a hard to access location.

The Installation of the PS1C display and switch device is simple. It can be mounted away from the pressure sensor, using a quick-fix bracket to attach to a horizontal or vertical plane or pipe. The device can alternatively be installed directly on the pressure transmitter via the M12 connector. In addition, the body of the switch can be rotated by 360° for easy adjustment of the viewing angle.

Benefits

Easy to mount

- Flexible mounting options: remotely with an electrical jumper or directly on the pressure transmitter
- Quick fix brackets, for vertical (1) or horizontal (2) placement, or attachment to a pipe
- Rotating body

Easy to set up

- Fast and intuitive configuration of just three parameters: display range, set point, reset point
- Adjustment screws compatible with standard screwdrivers

Easy to maintain

- Display status tested at each device start up and confirmed by display light up
- Convenient replacement without interrupting the pressure in the system

1

2

Perfect fit for...

PTE5000

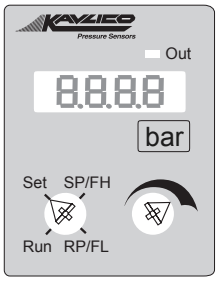
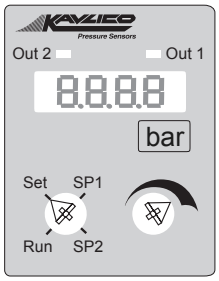
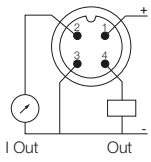
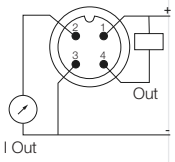
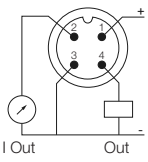
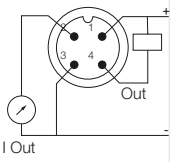
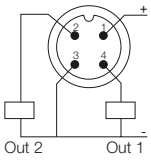
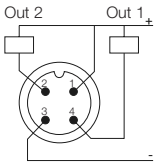
PTA5000

P1E

P1A

Main Characteristics

Output Configuration

Reference	PS1C-5000-1	PS1C-5000-2	PS1C-5000-3	PS1C-5000-4	PS1C-5000-5	PS1C-5000-6
Front face caption						
Analogue output	4...20 mA	4...20 mA	4...20 mA	4...20 mA	No / Non	No / Non
Switching output	PNP	NPN	PNP	NPN	2 x PNP	2 x NPN
Switching mode	Hysteresis	Hysteresis	Window	Window	Hysteresis	Hysteresis
Connector wiring						

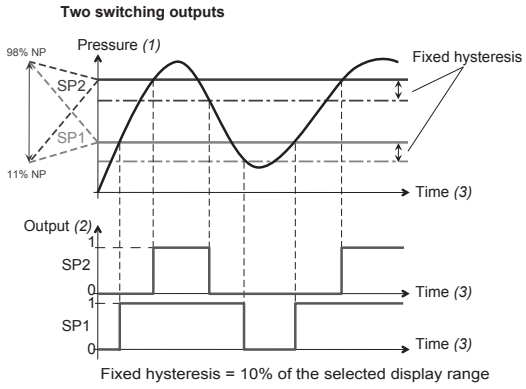
Power supply	c 24 Vdc SELV or PELV(*) power supply, operating range from 17 to 33 Vdc	
Current consumption	≤ 50mA	
Switching outputs	Switching capacity	≤ 200 mA with short-circuit & overload protection
	Voltage drop	≤ 2V
Analogue output	4...20 mA: load: ≤ 500 Ω (24V) ≤ 200 Ω (17V)	
Operating temperature range	-25 to +70 °C (-13 to +158 °F)	
Degree of protection	IP65, IP67 conforming to EN/IEC 60529 IP69K conforming to DIN 40050	
Overall accuracy (analogue, digital output, display)	< 1% of the selected display range	
Response time	≤ 5 ms	

(*) SELV: Safety extra low voltage /
PELV: Protected extra low voltage

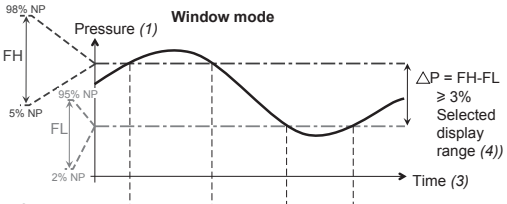
Electrical equipment should be installed, operated and maintained only by qualified personnel. No responsibility is assumed by Kavlico Pressure Sensors for any consequences arising out of the use of this material.

Output Description

Switching output



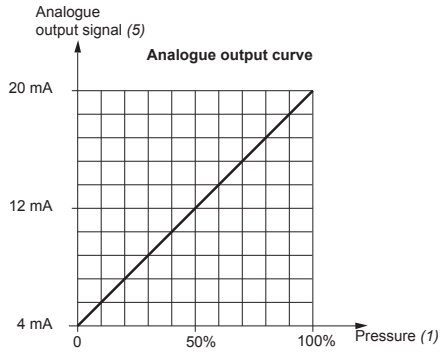
Fixed hysteresis = 10% of the selected display range

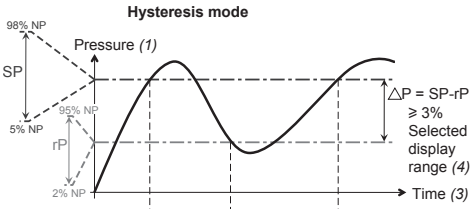


The window switching mode is typically used for the "pressure regulation applications"

Analogue output

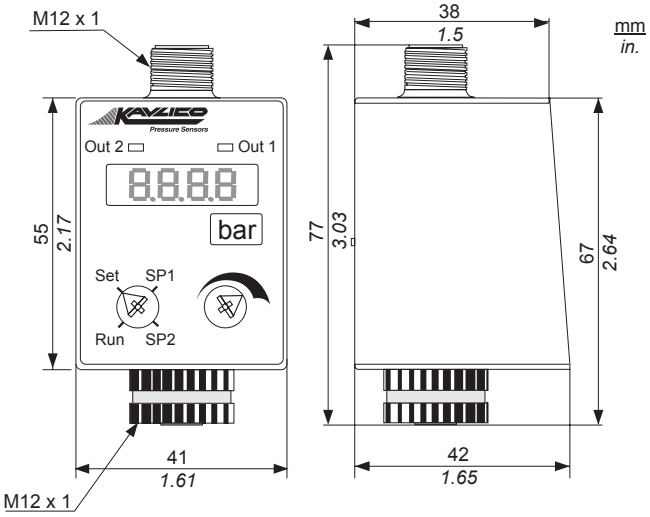
The 4-20mA analogue output is strictly the image of the pressure transmitter output signal

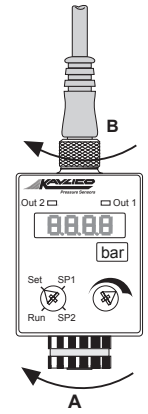




The hysteresis switching mode is typically used for the "pumping applications"

Dimensions and Tightening Torques

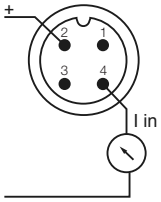




A y 2 Nm / *17.7 lb-in*
B y 2 Nm / *17.7 lb-in*

Wiring Diagram

Input M12 4-pin female connector



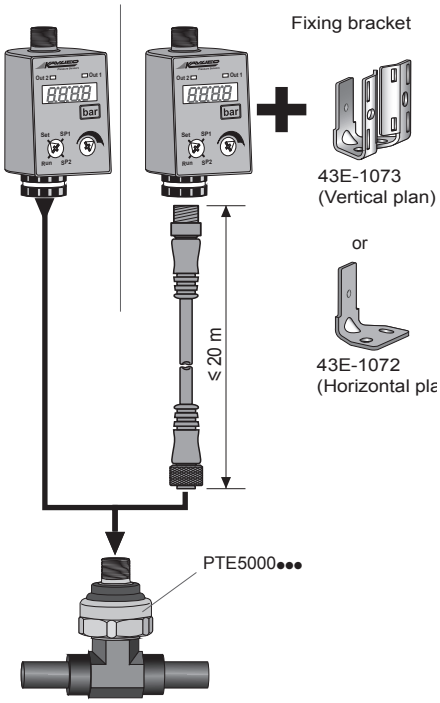
Caution

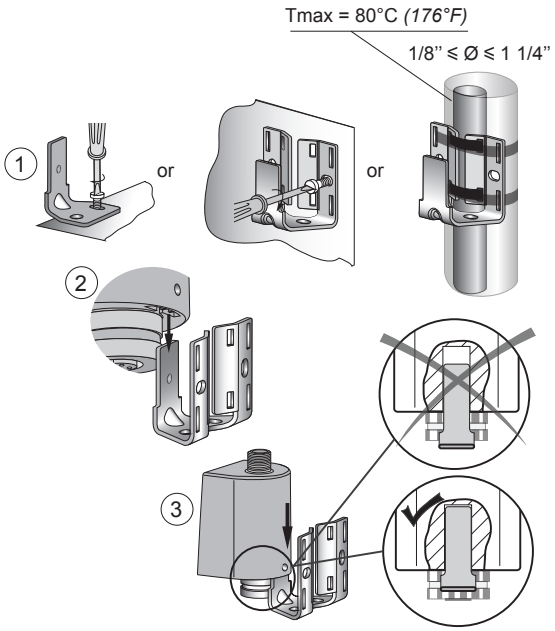
UNINTENDED EQUIPMENT OPERATION

- Only connect a 4-20mA pressure transmitter, directly or thanks to M12-M12 4-pin electrical jumper.
- Make sure the pressure transmitter pin out and analogue signal is compatible with PS1C if it is not a Kavlico one.

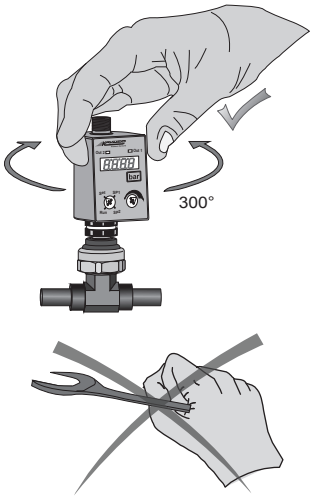
Failure to follow these instructions can result injury or equipment damage.

Mounting Possibility





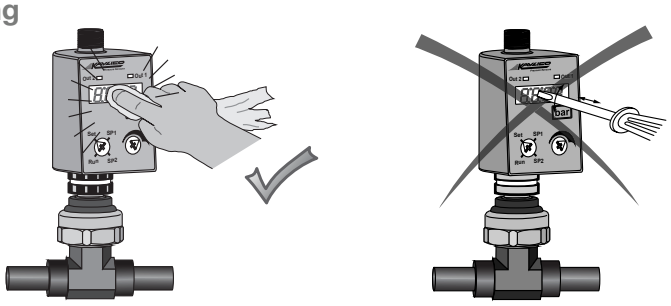
Usage Precautions



Maintenance

At each power on, all the display segments are simultaneously lit up briefly.
This allows the operator to check that all segments are well operating.

Cleaning



How to Order

Output 1	Output 2	Switching mode	
-	-	Hysteresis	Windows
4... 20 mA	PNP	PS1C-5000-1	PS1C-5000-2
4... 20 mA	NPN	PS1C-5000-3	PS1C-5000-4
PNP	PNP	PS1C-5000-5	-
NPN	NPN	PS1C-5000-6	-
Vertical surface fixing	**Horizontal surface fixing**	**M12 Jumper cable 1.5m**	
43E-1073	43E-1072	12E-1027	

Before installation and operation, ensure that the appropriate pressure sensor has been selected in terms of pressure range, design and specific measuring conditions. Non-compliance can result in serious injury and/or damage to the equipment.

Warning: The product information contained in this catalogue is given purely as information and does not constitute a representation, warranty or any form of contractual commitment. Kavlico reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsibility of the buyer to establish, particularly through all the appropriate tests, that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.

KAVLICO
Pressure Sensors

Sales Offices Worldwide

Americas
Brazil
Mexico
USA

Europe
England
France
Germany
Italy
Netherlands
Spain
Sweden
Russia

Asia Pacific
China
India
Japan
South Korea

Main Contact

Sensata Germany GmbH
Potsdamer Strasse 14,
32423 Minden
Tel: +49 571 3859-0
Fax: +49 571 3859-119
www.kavlico.com
www.sensata.com

Your local sales contact:

© 2016 Kavlico, a brand of Sensata Technologies. All rights reserved.
Kavlico's General Terms & Conditions apply and can be found on our website.

Ref.: DS_PR_EN_A4_JUL 2016 I Creation-Design: Kavlico - Photos: Oliver Windus, Fotodesign

Sensata Technologies

LifeElectronics
Живое партнерство

ООО «ЛайфЭлектроникс» **“LifeElectronics” LLC**

ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- *Конкурентоспособные цены и скидки постоянным клиентам.*
- *Специальные условия для постоянных клиентов.*
- *Подбор аналогов.*
- *Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.*

- *Приемлемые сроки поставки, возможна ускоренная поставка.*
- *Доставку товара в любую точку России и стран СНГ.*
- *Комплексную поставку.*
- *Работу по проектам и поставку образцов.*
- *Формирование склада под заказчика.*

- *Сертификаты соответствия на поставляемую продукцию (по желанию клиента).*
- *Тестирование поставляемой продукции.*
- *Поставку компонентов, требующих военную и космическую приемку.*
- *Входной контроль качества.*
- *Наличие сертификата ISO.*

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- *Регистрацию проекта у производителя компонентов.*
- *Техническую поддержку проекта.*
- *Защиту от снятия компонента с производства.*
- *Оценку стоимости проекта по компонентам.*
- *Изготовление тестовой платы монтаж и пусконаладочные работы.*

Тел: +7 (812) 336 43 04 (многоканальный)
Email: org@lifeelectronics.ru

www.lifeelectronics.ru