

Thank you for choosing NIVELCO instrument
We are sure that you will be satisfied throughout its use!

NIPRESS

DKA-2□3-□
 PRESSURE SWITCH

User's manual



1. APPLICATION

The NIPRESS DK-200 mini compact pressure switches with inner ceramic sensor and 1 or 2 PNP output can be used in 3- and 4-wire systems. The wide selection of the models makes it suitable for most of the pressure measurement tasks including relative or absolute pressure measurement. Optionally oil and grease free version is available. The design of the switch, its overload capability and the wide temperature range together with the possibility of installing the unit in any position makes NIPRESS DK-200 a good choice for the most different industrial circumstances.

Besides the standard functions the electronics of the DK-200 offers many additional features for an optimal adaptation to the measuring requirements. The instrument has one or two freely programmable contacts whose status is indicated by differently coloured LEDs. You can read about the configuration and programming possibilities of DK-200 in the chapter „5. PROGRAMMING”.

2. TECHNICAL SPECIFICATION

Type		DKA-2□3-□
Measurement range		0 – 400 bar (according to the order code)
Overload capability		According to the order code
Accuracy		1%
Medium temperature		- 25 °C ... + 85 °C
Ambient temperature		- 25 °C ... + 85 °C
Sensor type		Capacitive
Materials of the wetted parts	Sensor	Ceramic
	Sensor sealing	FKM (Viton), optional EPDM
	Process connection	Stainless steel: DIN 1.4305
	Housing	Stainless steel: DIN 1.4305
Output		1 or 2 PNP switch
Power supply		12 – 30 V DC
Process connection		1/4" BSP
Electrical connection		M12 x 1 threaded connection
Ingress protection		IP 67
Shock-hazard protection		SELV Class III
Mass		~ 0.09 kg

2.1 ACCESSORIES

- User's manual
- Warranty Card
- Declaration of Conformity

2.2 ORDER CODE

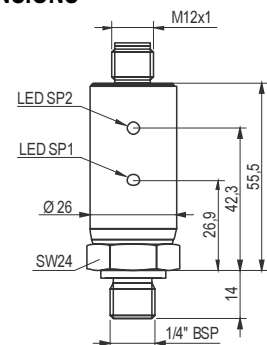
NIPRESS D K A - 2 □ 3 - □

RANGE / (OVERLOAD CAPABILITY) BAR ⁽¹⁾	CODE
0 – 2 / (7)	S
0 – 5 / (12)	M
0 – 10 / (25)	A
0 – 20 / (50)	T
0 – 50 / (120)	N
0 – 100 / (250)	F
0 – 200 / (400)	U
0 – 400 / (600)	J

OUTPUT	CODE
1 PNP	7
2 PNP	9

⁽¹⁾ Other ranges on request

2.3 DIMENSIONS



3. MOUNTING

Due to its small size and weight it can be directly installed on tanks, pipes, machines, etc without mounting device.

To ensure easy replacement of the instrument in case if it is needed the use of a shut-off valve is recommended.

In cases of measuring low pressure values in systems with substantial height difference between the level of the transmitter and point (level) of measurement the hydrostatic pressure of the medium in the impulse pipe (if used) should be taken into consideration. In case of outdoor installation, the unit should be protected against rain or splash water. Make sure that the screw of the connector is tightened correctly to avoid malfunction caused by leaks.

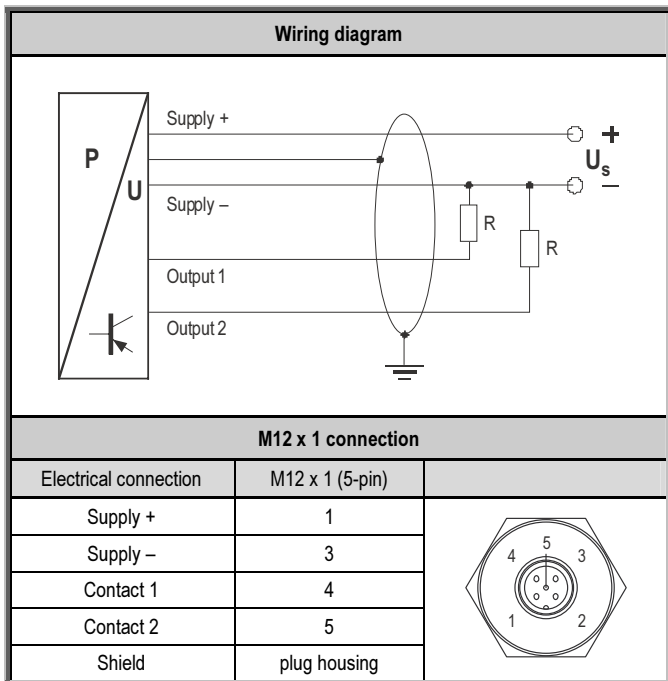
3.1 INSTALLATION

For mounting and dismantling SW27 open-end wrench should be used.

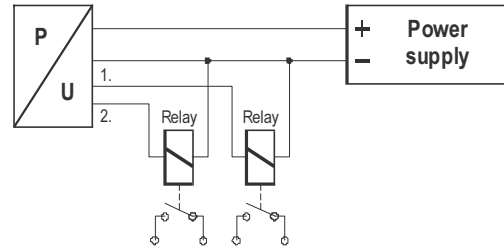
The device should not be gripped and tightened with pipe wrench!

Screw the pressure switch by hand into the thread and tighten it with approximately 5 Nm. The indicated tightening torques should not be exceeded! In hydraulic systems, position the device in such a way that the pressure port points upward (ventilation). Provide a cooling line when using the device in steam piping.

4. WIRING



4.1 EXAMPLES OF ARRANGEMENTS



5. PROGRAMMING

The configuration and programming of the DK-200 pressure switch can be done in the following three ways:

1. The instrument will be shipped with the standard factory setting:

Parameter	Factory setting
Switching function	n/o (normally opened)
Switching mode	hysteresis mode
Switch on point	80% FSO
Switch off point	75% FSO
Switch on/switch off delay	off

2. For extra cost the instrument can be shipped with customer's settings already programmed in the unit.
3. The instrument is configured and programmed by the customer with one of the two optionally available configuration kits (CIS Set USB kit for PC or P6 programming device). Using the configuration kits the following parameters can be set:
 - read all and store all (P6)
 - operation mode (CIS Set, P6)
 - switch-on and switch-off point (CIS Set, P6)
 - set point negation (CIS Set, P6)
 - switch-on and switch-off delay (CIS Set, P6)
 - teach switch-on and switch-off point (P6)
 - upload of stored configurations (P6)
 - store current configurations (P6)
 - display the current pressure value (P6)
 - display the limits of the measuring range (P6)

6. MAINTENANCE AND REPAIR

The instrument does not require regular maintenance. If necessary possible dirt deposited should be cleaned off.

All repairs will be carried out at the Manufacturer's premises.

7. STORAGE CONDITIONS

Storage temperature: -40 °C ... +85 °C

Relative humidity: max. 98 %

8. WARRANTY

NIVELCO provides warranty of 3 (three) years in compliance with details described in the Warranty Card.