

# NIPRESS D

PRESSURE SWITCHES, PRESSURE TRANSMITTERS AND DIFFERENTIAL PRESSURE TRANSMITTERS



5 YEARS WARRANTY



# **PRESSURE SWITCHES**

- Devices with or without display
  - Measuring range:
     -1 600 bar (-14.5 8700 psig)

The electronic pressure switches without display can be used in hydraulic and pneumatic applications for monitoring and controlling the pressure with switching outputs.

The devices are easily programmable either by the optionally available PC software and programming adapter, CIS interface module or via the programming device P6.

Due to the simple handling as well as the variety of software features (switching points and hysteresis freely configurable, delay function, min/max-value data storage, display and analogue output signal scalable, etc.) the intelligent switches with display are especially suitable as a pressure switch for general plant and machine construction and for the processing industry.

# **APPLICATIONS**

Mobile hydraulics, dry running protection, flow monitoring, grease monitoring, gas compressors, test and construction engineering, environmental engineering, HVAC, water and wastewater industry, food and beverage, pharmaceutical industry, etc.

#### **NIPRESS DK**

# PRESSURE TRANSMITTERS

- Measurement of vacuum, overpressure and absolute pressure
  - Measuring range:
     -1 2000 bar (-14.5 29000 psig)

The wide selection of pressure measuring technologies, housing materials (stainless steel, plastics) provides possibility to complete almost all gas and fluid pressure measurement tasks. Their design, high overload capability and the possibility to install the units in any physical position allows for a wide range of industrial applications.



# **APPLICATIONS**

HVAC, hydraulics, pneumatics, mechanical and plant engineering, energy industry, food and beverage industry, pharmaceutical industry, chemical industry, oil and gas industry, pulp and paper industry, environmental engineering, etc.

# **NIPRESS D**

# **DIFFERENTIAL TRANSMITTERS**

- For differential pressure measurement
  - Measuring range:
     0 70 bar (0 1015 psig)

Thanks to different sensor technologies combined with compact aluminum die-cast cases or plastic housings, our differential pressure transmitters may be used for numerous fluids and gases, e. g. for monitoring ventilation ducts, filters and fans in HVAC areas as well as for level measurement in closed pressurized tanks.



#### **APPLICATIONS**

HVAC, mechanical and plant engineering, oil and gas industry, chemical industry, energy industry, food and beverage industry, pulp and paper industry.

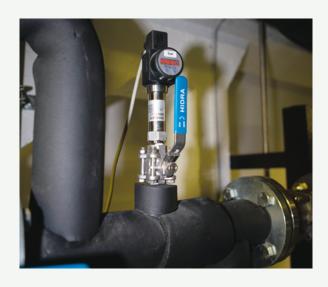
# **NIPRESS DD**

#### **GENERAL DESCRIPTION**

In the world of industrial metrology, monitoring and controlling the pressure of fluids and gases and the processing of the measured results are high priorities. NIVELCO covers the needs of several industries and application areas with the wide selection of the NIPRESS family.

#### MAIN FEATURES

- Advanced pressure measuring technologies
- Relative and absolute pressure measurement
- Devices for nearly all medium
- Several accuracy classes and several mounting options
- Excellent overload resistance
- 2- and 3-wire systems
- Devices with lots of different electrical and process connections
- Solutions for rough conditions (aggressive medium, wide temperature range, dynamic pressure changes)
- Solutions for high hygiene requirements
- Excellent price/value ratio
- 5 years warranty



DK-400

PRESSURE SWITCHES								
3- / 4-wire mini compact		3- / 8-wire mini compact		ТҮРЕ				
silicon inner diaphragm (piezoresistive)	ceramic inner diaphragm (piezoresistive)	stainless steel inner or flush diaphragm (piezoresistive)	welded stainless steel flush diaphragm (piezoresistive)	SENSOR				
Relative pressure measurement Configurable via PC or programming device 1 or 2 PNP output	<ul> <li>Relative or absolute pressure measurement</li> <li>Configurable via PC or programming device</li> <li>1 or 2 PNP output</li> </ul>	Relative or absolute pressure measurement Up to 4 switch outputs Rotatable and configurable 4-digit LED display module	Relative or absolute pressure measurement Up to 4 switch outputs Rotatable and configurable 4-digit LED display module	FEATURES				
Ideal for pneumatic and vacuum applications     Mechanical and plant engineering     HVAC	Ideal for hydraulic and mechanical engineering applications for measuring, control and process technology     Mechanical and plant engineering     Energy industry	Mechanical and plant engineering     HVAC     Environmental engineering	Ideal for viscous and pasty media     Food and beverage industry     Medical technology     Pharmaceutical industry	APPLICATION				
Nominal pressure gauge: -1 - 10 bar (-14.5 - 145 psig)  Accuracy: 1%  Medium temperature: -25 °C +85 °C (-13 °F +185 °F)  Ambient temperature: -25 °C +85 °C (-13 °F +185 °F)  Output: 1 or 2 PNP switch output  Process connection: ½" BSP (internal thread)  Protection: IP54	Nominal pressure gauge:  0 - 400 bar (0 - 5800 psig)  Accuracy: 1%  Medium temperature: -25 °C +85 °C (-13 °F +185 °F)  Ambient temperature: -25 °C +85 °C (-13 °F +185 °F)  Output: 1 or 2 PNP switch output  Process connection: 1/4" BSP  Protection: IP67	Nominal pressure gauge: -1 - 600 bar (-14.5 - 8700 psig) Accuracy: 0.25% (p ≥ 0.4 bar); 0.5% Medium temperature: -40 °C +125 °C (-40 °F +257 °F) Ambient temperature: -40 °C +85 °C (-40 °F +185 °F) Output: 1, 2, 4 PNP switch output Process connection: 1/4", 1/2" BSP; 3/4" BSP (with flush membrane); 1/4", 1/2" NPT; M20x1.5 Protection: IP65	Nominal pressure gauge: -1 - 40 bar (-14.5 - 580 psig)  Accuracy: 0.25% (p ≥ 0.4 bar); 0.5%  Medium temperature: -40 °C +125 °C (-40 °F +257 °F)  Ambient temperature: -40 °C +85 °C (-40 °F +185 °F)  Output: 1, 2, 4 PNP switch output  Process connection: 1/2", 3/4", 1", 11/2", 2" BSP; 3/4"; 1", 11/2", 2" TriClamp; M20x1.5; Sanitary DN25, DN40, DN50, Flange DN40, DN50, DN80, VARIVENT® DN40/50  Protection: IP65	SPECIFICATION				
= 1 – 5 V analogue output = Setting of customized switching points	<ul> <li>Oxygen application</li> <li>Oil- and grease free application</li> <li>EPDM sealing</li> <li>Absolute pressure measuring method</li> <li>Setting of customized switching points</li> </ul>	Ex ia, or SIL version* Analogue 4 – 20 mA, 2-wire output Analogue 0 – 10 V, 3-wire output Integrated cable version Absolute pressure measuring method	Ex ia, or SIL version* Analogue 4 – 20 mA, 2-wire output Analogue 0 – 10 V, 3-wire output Integrated cable version Absolute pressure measuring method Hastelloy C membrane FFKM sealing Filled with food compatible oil	OPTIONS				
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DK-300

DK-200

DK-100

	PRESSURE SWITCHES									
TYPE		3- / 5-wire mini compact		5- / 8-wire mini compact						
SENSOR	welded stainless steel inner diaphragm (piezoresistive)	ceramic internal diaphragm (piezoresistive)	welded stainless steel flush diaphragm (piezoresistive)	ceramic internal diaphragm (piezoresistive)						
FEATURES	Relative or absolute pressure measurement 1 or 2 PNP output Rotatable and configurable 4-digit LED display module Robust, stainless steel housing	Relative or absolute pressure measurement I or 2 PNP output Rotatable and configurable 4-digit LED display module Robust, stainless steel housing	Relative or absolute pressure measurement 1 or 2 PNP output Rotatable and configurable 4-digit LED display module	Relative or absolute pressure measurement 1 or 2 PNP outpu Rotatable and configurable 4-digit LED display module						
APPLICATION	Mechanical and plant engineering     HVAC     Environmental engineering	For rough conditions and difficult conditions  Mechanical and plant engineering  Environmental engineering	Ideal for high hygienic applications     Food and beverage industry     Pharmaceutical industry	General industrial applications Suitable for the usage in viscous, pasty or highly contaminated media Mechanical and plant engineering Environmental engineering, for measuring fuels, lubricants, water and aggressive media						
SPECIFICATION	Nominal pressure gauge: -1 - 600 bar (-14.5 - 8700 psig) Accuracy: 0.25% (p ≥ 0.4 bar); 0.5% Medium temperature: -40 °C +125 °C (-40 °F +257 °F) Ambient temperature: -40 °C +85 °C (-40 °F +185 °F) Output: 1 or 2 PNP switch output Process connection: 1/4", 1/2" BSP; 1/4", 1/2" NPT Protection: 1P67	Nominal pressure gauge: -1 - 600 bar (-14.5 - 8700 psig) Accuracy: 0.5% Medium temperature: -40 °C +125 °C (-40 °F +257 °F) Ambient temperature: -40 °C +85 °C (-40 °F +185 °F) Output: 1 or 2 PNP switch output Process connection: 1/4", 1/2" BSP; 1/4", 1/2" NPT Protection: 1P67	Nominal pressure gauge: -1 - 40 bar (-14.5 - 580 psig) Accuracy: 0.25%; 0.5%  Medium temperature: -40 °C +125 °C (-40 °F +257 °F) Ambient temperature: -40 °C +85 °C (-40 °F +185 °F) Output: 1 or 2 PNP switch output Process connection: 1/2", 3/4", 1" BSP; 3/4", 1", 11/2", 2" TriClamp; Sanitary DN25, DN40, DN50; VARIVENT® DN40/50 Protection: IP67	Nominal pressure gauge: -1 - 600 bar (-14.5 - 8700 psig) Accuracy: 0.5%  Medium temperature: -40 °C +125 °C (-40 °F +257 °F) Ambient temperature: -40 °C +85 °C (-40 °F +185 °F) Output: 1, 2 or 4 PNP switch output Process connection: 1/4", 1/2", 3/4" BSP; 1/4", 1/2" NPT Protection: IP65						
OPTIONS	Ex ia, or SIL version* Analogue 4 – 20 mA, 2-wire output Analogue 0 – 10 V, 3-wire output Absolute pressure measuring method	Ex ia, or SIL version*     Analogue 4 – 20 mA, 2-wire output     Analogue 0 – 10 V, 3-wire output     PVDF process connection     Oxygen application     Absolute pressure measuring method     EPDM sealing	Ex ia version* High temperature version Analogue 4 – 20 mA, 2-wire output FFKM sealing Filled with food compatible oil	Ex ia version*  Analogue 4 – 20 mA, 2-wire output  Analogue 0 – 10 V, 3-wire output  Integral cable version  PVDF process connection  EPDM, NBR sealing  Oxygen application  Absolute pressure measuring method						
	DK-500	DK-600	DK-700	DK-800						

	PRESSURE TRANSMITTERS									
TYPE	2- / 3-wire mini compact		2-wire compact							
SENSOR	stainless steel flush diaphragm (piezoresistive)	ceramic internal diaphragm (capacitive)	welded stainless steel internal diaphragm (capacitive)	stainless steel internal or flush diaphragm (piezoresistive)	ceramic flush diaphragm (capacitive)					
FEATURES	Relative pressure measurement Robust construction Modular construction	Relative or absolute pressure measurement Ideal for measuring small system pressure High overpressure resistance and a high temperature and media resistance	<ul> <li>Relative pressure measurement</li> <li>Extreme pressure resistance (up to 2000 bar [29007 psig])</li> <li>Welded thinfilm sensor</li> <li>High reliability</li> <li>Easy handling</li> </ul>	Relative or absolute pressure measurement Two chamber aluminum die cast case or stainless housing Turn-down 1:10 HART® communication	99.9% aluminum oxide ceramic sensor, high overpressure capability     Relative pressure measurement     Two chamber aluminum die cast case or stainless housing     Turn-down 1:5					
APPLICATION	<ul> <li>Preferred media: water, fuels and oils</li> <li>Mechanical and plant engineering</li> <li>Energy industry</li> <li>Environmental engineering</li> </ul>	Preferred media: water, gases, fuels and oils  Mechanical and plant engineering  Energy industry  HVAC  Laboratory  Environmental engineering	<ul> <li>Ideal for high pressure hydraulic applications</li> <li>Mechanical and plant engineering</li> <li>Laboratory</li> <li>Hydraulics</li> </ul>	Absolute measurement of gases and steam up to 600 bar (8700 psig) Ideal for process, food and pharmaceutical industry  Mechanical and plant engineering Chemical industry Paper industry  Oil and gas industry	HART® communication     Relative measurement of gases, steam and fluids     Mechanical and plant engineering     Chemical industry     Medical technology     Food and beverage industry     Paper industry     Environmental engineering					
SPECIFICATION	Nominal pressure gauge: 0 - 40 bar (0 - 580 psig)  Accuracy: 0.25% (p ≥ 0.4 bar); 0.5%; 0.1% (not in combination with SIL)  Medium temperature: -40 °C +125 °C (-40 °F +257 °F)  Ambient temperature: -40 °C +85 °C (-40 °F +185 °F)  Output: 2-wire: 4 - 20 mA, 3-wire: 0 - 10 V  Process connection: 3/4" BSP  Protection: IP65, IP67, IP68	Nominal pressure gauge:  0 - 20 bar  (0 - 290 psig)  Accuracy:  0.25% (p ≥ 0.6 bar);  0.5%  Medium temperature:  -40 °C +125 °C  (-40 °F +257 °F)  Ambient temperature:  -40 °C +85 °C  (-40 °F +185 °F)  Output:  2-wire: 4 - 20 mA,  3-wire: 0 - 10 V  Process connection:  1/4", /2" BSP;  1/2" NPT;  M20x1.5  Protection:  IP65, IP67, IP68	Nominal pressure gauge:  0 - 2000 bar (0 - 29000 psig)  Accuracy: 0.5%  Medium temperature: -40 °C +140 °C (-40 °F +284 °F)  Ambient temperature: -25 °C +85 °C (-13 °F +185 °F)  Output: 2-wire: 4 - 20 mA, 3-wire: 0 - 10 V  Process connection: 1/2" BSP;  M20x1.5 (internal thread)  Protection: IP65, IP67, IP68	Nominal pressure gauge:  0 - 600 bar (0 - 8700 psig) (optionally also from -1 bar)  Accuracy: 0.1%  Medium temperature: -40 °C +125 °C (-40 °F +257 °F)  Ambient temperature: -40 °C +70 °C (-40 °F +158 °F)  Output: 4 - 20 mA + HART®  Process connection: 1/4", 1/2", 1", 1/2" BSP; 1/2", 1" NPT; 3/4", 1", 1/2", 2" Triclamp; M20x1.5; Sanitary DN25, DN40, DN50, Flange DN25, DN50, DN80, DN100, Flange 2", 3" RF, VARIVENT® DN40/50  Protection: IP67	Nominal pressure gauge:  0 - 20 bar  (0 - 290 psig)  Accuracy:  0.1% (p ≥ 1 bar),  0.2% (p < 1 bar),  1% (Teflon coated)  Medium temperature:  -25 °C +125 °C  (-13 °F +257 °F)  Ambient temperature:  -40 °C +70 °C  (-40 °F +158 °F)  Output:  4 - 20 mA + HART®  Process connection:  ½", 1½" BSP; ½" NPT;  Sanitary DN40, DN50;  Flange DN25, DN50,  DN80, 2", 3" RF  Protection:  IP67					
OPTIONS	Ex ia, or SIL version* Integral cable version EPDM sealing	Ex ia version*     99.9% aluminum oxide ceramic sensor     Integral cable version     PVDF process connection     EPDM sealing	Ex ia version* Adjustability of span and offset Integral cable version  Exists the span and offset	Display and operating module  Ex ia, or Ex d version* High temperature version (300 °C [572 °F])  EPDM, FFKM sealing Hastelloy, or Tantalum sensor	Display and operating module     Ex ia, or Ex d version*     PVDF process connection     Teflon sheeting on sensor     EPDM sealing					
				3542	1.845					
	D-800	D-900	D-C00	D-A00	D-B00					

**DIFFERENTIAL TRANSMITTERS** 



NIVELCO – official sponsor of the Hungarian Paralympic Team



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