

Product Catalogue

INDUSWITCH®

Mechanical Pressure & Vacuum Switches



INDUSWITCH® - Pressure Switch Model DU



at a glance

- friction-free force balance measuring system
- high repeatability
- high long-term stability
- measuring ranges -1... 0 bar / 0 - 1 bar up to 0 - 60 bar
- different process connections
- different electrical connections

Description

The INDUSWITCH® is a pressure switch for measuring pressure or vacuum, depending on model and configuration, also for aggressive, gaseous or not highly viscous fluids.

Operating principle

The operation is based on force-balance - a precision spring with an adjustable force opposes the metal bellows. Once the process pressure acting on the bellows overcomes the set force the change-over contact is triggered. The set point adjustment is made by adjusting the set point screw. The measuring system works friction-free, resulting in minimal wear. No maintenance or spare parts are needed!

Technical Data	Standard
Function	mechanical pressure switch; force-balance measuring systems with bellows
Life Cycle	at least 10 Mio switch cycles
Pressure Ranges	0 - 1 bar up to 0 - 60 bar
Vacuum Ranges	-1 - 0 bar
Over Pressure Safety	> 1,5x FS
Vacuum Safety	-1 bar
Material Enclosure	Aluminium, anodized black
Material Wetted Parts	Brass or Stainless Steel 1.4571 (AISI 316Ti)
Material Wetted Seals	FKM or fully welded (only stainless steel)
Permissible Media Temperature	-20...+80°C (+130°C for stainless steel version)
Permissible Ambient Temperature	-20...+80°C
Temperature Deviation	approx. 1% per 20°C
Switching Contact	1 Micro Switch (SPDT)
Adjustment Accuracy	≤ 1,0% FS
Switching Accuracy	≤ 1,0% FS
Repeatability	≤ 1,0% FS
Switching Differential (Hysteresis)	see electrical data
Process Connection	see dimensional drawings
Electrical Connection	Plug EN 175 301-803-A (ISO 4400) or Plug M12x1
Weight	approx. 250 g
Protection	IP65

Options & Accessories

OEM versions; customer specific versions

Other Measuring Units (e.g. kPa, psi); Special Measuring Ranges; Extended Over Pressure Protection

Other Seal Materials; Cleaned for O2 Service

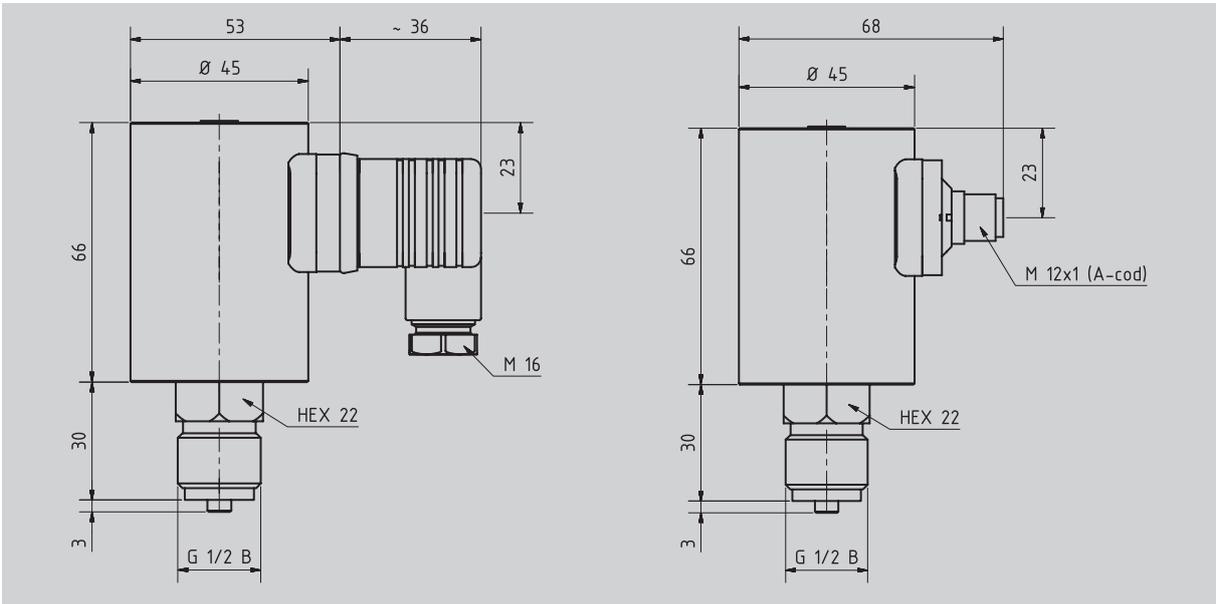
Other Electrical Connections

Accessories see chapter „Accessories“

Dimensional Drawings

ISO 4400 & G 1/2 B

M 12x1 & G 1/2 B



Electrical Data¹

Max. Steady Current I max [A] on Ohmic Load

Reference Switch Cycle: 30/min, Reference Temperature: +30°C

Micro Switch	U [V]	24 V	48 V	60 V	110 V	240 V	SD [%] ²
Standard	I [A] AC	5	5	5	5	5	1
Standard	I [A] DC	5	2	1	0,4	0,2	1
MG ³	I [A] AC	1	1	1	1	—	1,5
MG ³	I [A] DC	1	0,5	0,35	0,2	—	1,5
CS	I [A] AC	5	5	5	5	5	2
CS	I [A] DC	5	2	1	0,4	0,2	2
CH	I [A] AC	12	12	10	10	10	2
CH	I [A] DC	10	2	1	0,4	0,2	2

Electrical Connection

El. Connection	+Ub	Normally Closed	Normally Open	GND
ISO 4400	1	2	3	GND
M 12	1	2	4	—
Cable	1	2	3	4

Remarks

- 1 different for plug M12: 24 VDC / 4A; 24 VAC / 3A respectively 1A for micro switch type MG
- 2 typical switching differential (hysteresis) in % from full scale
- 3 micro switch with gold plated contacts

Part-No. Overview

Most Common Options

Part-No. build-up	U 001 a b - c - d e f	
a / Wetted Parts	Brass, FKM	1
a / Wetted Parts	Stainless Steel 1.4571 (AISI 316Ti), FKM	2
b / Switching Contact	Micro Switch Standard	A
b / Switching Contact	Micro Switch Gold	B
b / Switching Contact	Micro Switch CS	H
b / Switching Contact	Micro Switch CH	G
c / Pressure Range	-1...0 bar	006
c / Pressure Range	0 - 1 bar	020
c / Pressure Range	0 - 1,6 bar	022
c / Pressure Range	0 - 2,5 bar	023
c / Pressure Range	0 - 4 bar	024
c / Pressure Range	0 - 6 bar	025
c / Pressure Range	0 - 10 bar	026
c / Pressure Range	0 - 16 bar	027
c / Pressure Range	0 - 25 bar	028
c / Pressure Range	0 - 40 bar	029
c / Pressure Range	0 - 60 bar	030
d / Process Connection	G 1/4 B, Brass	A
d / Process Connection	G 1/4 B, Stainless Steel	B
d / Process Connection	G 1/2 B, Brass	C
d / Process Connection	G 1/2 B, Stainless Steel	D
d / Process Connection	1/4" NPT male (ASME B1.20)	T
d / Process Connection	1/2" NPT male (ASME B1.20)	V
d / Process Connection	Stand Pipe End 6x1 mm, 50 mm long	W
d / Process Connection	G 1/2 with front facing diaphragm	6
e / Electrical Connection	Plug ISO 4400	B
e / Electrical Connection	Plug M12	D
e / Electrical Connection	3m Cable	K
f / further Options	no further options	O
f / further Options	cleaned for O2 service	A

Ordering Example

Part-No. build-up **U 001 a b - c - d e f**

Example Part-No. **U0011A-026-CBO**

ID for INDUSWITCH-DU		U001
a / Wetted Parts	Brass, FKM	1
b / Switching Contact	Micro Switch Standard	A
-	hyphen	-
c / Pressure Range	0 - 10 bar	026
-	Bindestrich	-
d / Process Connection	G 1/4 B, Brass	C
e / Electrical Connection	Plug ISO 4400	B
f / further Options	no further options	O

PINTER Mess- und Regeltechnik GmbH
Kraichgaublick 17
Technologiepark Neckartal-Odenwald
74847 Obrigheim, Germany

Phone +49-6262-92670-0
Fax +49-6262-92670-99
E-Mail info@pinter-gmbh.de
Internet www.pinter-gmbh.com

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