

SUCO Product Overview

Pressure Monitoring & Transmission Technology



SUCO GROUP



WORLDWIDE



an overview

Mechanical Pressure Switches

Electronic Pressure Switches

Pressure Transmitter

Electronic Pressure Sensors

Transmission Technology

www.suco.de

www.esi-tec.com

Mechanical Pressure Switches

Pressure switches hex 24 / hex 27 with integrated connectors

- NO / NC / Changeover
- «Plug & Play» connectors for high efficiency
- Various customization options (plug, housing material, thread, coding)
- Protection class up to IP6K9K
- Switching point adjustable on site



Pressure switches hex 24

- NO / NC, max. 42 V
- Variable pressure ranges between 0.1 - 200 bar
- Overpressure safety up to 600 bar
- Cost-effective solution in many different variants
- Robust, compact design
- Switching point adjustable on site



Pressure switches, hex 27

- Proven pressure switches with changeover contacts up to 250 V
- Variable pressure ranges from 0.3 - 1.5 bar to 100 - 400 bar
- Adjustable hysteresis at factory
- High overpressure safety and long service life even under harsh operating conditions
- Switching point adjustable on site



Ready-wired pressure switches

Nearly all our hex 24 and hex 27 switches can be customized as ready wired switches to come with different cable lengths and connectors to suit your specific needs. Protection class: IP67 / IP6K9K



Pressure switches PLUS, hex 24 with intelligent, supplementary functions

- Resistor circuit according to NAMUR (fail-safe) for short circuit and cable break detection
- Varistor circuit with overvoltage protection for prolonging the contact life and active reduction of EMV
- PTC thermistors with inrush current limitation when initial switching load is too high
- NTC Thermistors with temperature-controlled switching function, e.g. cold start or filter monitoring
- Protection class up to IP67 / IP6K9K



Pressure switch, A/F 30

- High precision at pressure ranges from 0.1 - 1 bar to 100 - 400 bar
- Robust pressure switches with flange or thread connection
- Switching point adjustable on site by customer
- Easy-installation and maintenance-free



ATEX Pressure Switches, hex 27, A/F 30

- Intrinsically safe pressure switches for applications in ATEX zones:
 - 1 (Gas: type 0165)
 - 22 (Dust: type 034X)
- Set point adjustable from 0.3 - 1.5 bar to 100 - 400 bar even whilst in operation
- Excellent price/performance ratio



Mechanical Vacuum Switches

Vacuum switches

- Easy to adjust vacuum switches with excellent overpressure safety
- NO, NC or changeover contacts
- Pressure ranges from 100 - 950 mbar (vacuum)
- Switching point adjustable on site by customer
- Very long service life



Accessories

- Direct from the manufacturer
- Protective caps, sockets devices, thread / aluminium adapters and ready wired mating connectors
- Other options and customised versions available on request



Pressure Transmitter

0601 / 0602

«Performance» series, hex 24

- Measuring ranges from 0 - 2 bar to 0 - 250 bar
- 2x overpressure protection
- Ceramic sensor in thick film technology
- Small, compact transmitters
- Stainless steel housing (1.4305)
- High level of adaptability to your requirements



0630 / 0631

CAN BUS Transmitter, hex 22

- Measuring ranges from 0 - 1 bar to 0 - 600 bar
- CANopen protocol acc. to CiA DS-301, Device profile acc. to CiA DS-404
- CAN J1939 protocol acc. to SAE J1939
- Completely welded measuring cell made of stainless steel 1.4542 ensures broad & excellent media compatibility



0645 / 0650 / 0660

Transmitter stainless steel 303, hex 22

- Measuring ranges from vacuum up to 100 bar
- Oil filled measuring cell with piezoresistive sensor
- Wetted parts in stainless steel 303 suitable for oxygen and hydrogen
- Ratiometric, current and voltage outputs



0675 / 0680 / 0690

Transmitter stainless steel 316L, hex 22

- Technical data as version 06XX in 303, but wetted parts and housing made of stainless steel 316L
- Especially for sea water, chemical and medical applications etc.
- Different sealing materials enable applications within a broad temperature range with diverse media



0705 / 0710 / 0720

«High-Performance» series, hex 22

- Pressure ranges up to 600 bar
- Outstanding accuracy due to SoS sensor technology
- 4x overpressure safety
- Excellent temperature and long term stability
- Ratiometric, current and voltage outputs



SUCO Transmitter Display (STD)

- Quick & easy plug-on display
- Pressure display in real time on site
- 4 - 20 mA current output, switching output option
- Loop powered - No additional voltage supply required
- Connection to DIN EN 175301-803-A (DIN 43650)



Electronic Pressure Switches

050X / 051X

«Performance» series, hex 24

- Small & compact electronic pressure switches for pressure ranges from 0 - 2 bar to 0 - 250 bar with 2x overpressure protection
- Ceramic sensor in thick film technology
- Housing made of stainless steel 1.4305, others on request
- Switching point adjustable by customer or at factory
- Hysteresis adjustable between 2 % – 98 %, set at factory
- Types 050X programmable with PPD05
- Plasma cleaned „oil & grease free“ and „PWIS-free“ on request



0520

Pressure switch hex 27, 30 A/F

- Precise electronic pressure switch with ceramic measuring cell for pressure ranges up to 250 bar
- suitable for very high switching currents up to 1.4 A
- Hysteresis adjustable from 2 % – 95 %, set at factory
- Switching points adjustable by customer



0570

Menu-controlled pressure switch

- Electronic pressure switch with programming menu and display
- Ceramic measuring cell for pressure ranges up to 400 bar
- Two adjustable set points plus 4 – 20 mA analogue output
- Programming functions like switching time delay, Max. pressure memory, etc.



053X «High-Performance» series, hex 22

- Pressure ranges up to 600 bar possible
- 4x overpressure safety
- Outstanding accuracy due to SoS technology
- One output, factory-set switching points
- Excellent temperature and long term stability



054X «High-Performance» series, hex 22

- Pressure ranges up to 600 bar possible
- 4x overpressure safety
- Outstanding accuracy due to SoS technology
- Two outputs, factory-set switching points
- Excellent temperature and long term stability



SUCO Programming device PPD05

- «Plug & Play» via USB
- Suitable for SUCO Performance series 0500 and 0501
- Easy adjustment of switching point & switch delay time via software
- Enables hysteresis and window function



Accessories

- Direct from the manufacturer
- Protective caps, sockets devices, thread / aluminium adapters and ready wired mating connectors
- Other options and customised versions available on request



Electronic Pressure Sensors

HI20XX High-Precision Pressure Transducer

- Accuracy $\pm 0.1\%$ of span BFSL
- Silicon-on-Sapphire sensor technology
- Pressure ranges from 0 – 500 mbar (vacuum) to 0 – 1,500 bar
- Wetted parts made of titanium
- Zero-Offset and full scale (FS) adjustable by customer



HP10XX / HP11XX High Pressure Transmitter

- Temperature range max. $+125\text{ }^\circ\text{C}$
- Silicon-on-Sapphire sensor technology
- Pressure ranges up to 5,000 bar
- Output signals: 10 mV/V, 0 - 5 V, 0 - 10 V or 4 - 20 mA
- DNV-GL certification for marine applications



LP10XX Low Pressure Transmitter

- For very low pressure ranges with highest accuracy
- Piezoresistive silicon sensor
- Pressure ranges from 0 – 50 mbar to 0 – 500 mbar (vacuum)
- Zero-Offset and full scale (FS) adjustable by customer



PR320X Differential Pressure Transmitter

- PR3200 – High line pressure from 0 - 500 mbar to 0 - 200 bar
- PR3202 – Low line pressure from 0 - 5 mbar to 0 - 1,000 mbar
- Line pressure can be applied and measured from both sides



HI22XX / PR3860 High Temperature Pressure Transmitter

- Suitable for high temperature applications up to $+250\text{ }^\circ\text{C}$
- SoS sensor technology
- Pressure ranges from 0 – 1 bar to 1 - 1,500 bar possible
- Excellent long-term stability and accuracy $\pm 0.1\%$ of span BFSL



PR3850 / PR3800 Flush Diaphragm Pressure Transmitter

- Flush diaphragm available in stainless steel 316 or 316L
- Pressure ranges from 0 – 200 mbar to 0 - 400 bar possible
- Easy to clean flush membrane to prevent clogging
- Various connections available



PR34XX Submersible Pressure Transmitter

- Pressure ranges from 0 – 1 mWS to 0 – 500 mWS
- Slim design for borehole applications
- Stainless steel housing 316L ensures excellent media compatibility
- High strength moulded
- Options include ATEX versions and DNV GL certification for marine applications



Genspec© Dynamic GD4200-USB USB Powered Pressure Transducer

- Pressure ranges from vacuum up to 5,000 bar possible
- SoS sensor technology
- Sample rate up to 1,000 Hz
- Measurement and record of up to 16 pressure inputs at once.
- Accuracy (NLHR) $\pm 0.15\%$ of span BFSL



Transmission Technology

Centrifugal Brakes

SUCO centrifugal brakes automatically limit the maximum RPM of a shaft, so providing protection against over speed, without necessitating external controls.

SUCO can provide 'specials' based on their modular range of brakes. SUCO centrifugal brakes are very compact which facilitates inclusion in new transmission designs and 'Retrofitting' (e.g. between motor and gearbox).

They are almost maintenance free and can be sized to work as an emergency brake or for continuous use. (e.g. personnel descent control).

Torque:
0.5 - 2,000 Nm
Operating speed:
300 - 4.000 RPM



Electromagnetic Clutches and Brakes

Our know how and experience of more than 75 years, combined with our modern machining facilities allow us to make individually designed electromagnetic clutches and brakes, even in small quantities.

When combined with our centrifugal clutches we can provide unique solutions for special applications.

Torque:
1 - 280 Nm
Operating speed:
0 - 10,000 RPM
Power Supply:
6, 12, 24, 48, 190 VDC



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Centrifugal Clutches

SUCO Centrifugal Clutches allow a soft load free start from rest, automatically engaging as the speed increases.

SUCO manufacture four basic designs comprising:

- 2 shoe with servo engagement
- 2 shoe pin drive
- 3 shoe pin drive
- 3 shoe with servo engagement and integral shock absorbing rubber bushes.

All SUCO clutches are almost service free but easy to overhaul when required.

Torque:
0.5 - 2,000 Nm
Operating speed:
300 - 4,000 RPM



Security Brake for Small Wind Turbines

We have developed a security brake especially for small wind turbines up to 30 kW. In the event of the system rotating too quickly, the brake brings the turbine smoothly to a stand still and automatically restarts after a rest period.

The system works independently, without external energy or signals. We can customise our product to suit your application to arrive at a safe and service free installation.

Alternatively we also offer versions with manual reset. This patented SUCO ZERO system can be applied to other applications such as working platforms and lifts.



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