

# HYDRAULICS

Pressure and temperature monitoring solutions



- Pressure switches
- Pressure transmitters
- Thermostats



# Pressure and temperature monitoring for hydraulic applications

Applications in mobile and stationary hydraulics are among the most demanding in terms of robust and reliable sensor requirements. Trafag pressure transmitters are used in applications from high accuracy test benching to heavy construction and agricultural equipment. They are proven for long term stability in extremely harsh environments from the dusty heat of deserts to the icy cold of sub-arctic forests. The reliable pressure transmitters with great long-term stability are highly prized for stationary hydraulics as well, for they avoid costly production interruptions.

## Agricultural and forestry machines

Tractors, harvesting machines, transport machines

## Renewable energies

Rotor control in wind power plants, solar tracking for photovoltaic systems

## Construction machines

Excavators, mobile cranes, concrete pumps and mixers

## Communal and special vehicles

Garbage collection, heavy transporters, firefighting vehicles

## Machine and plant construction

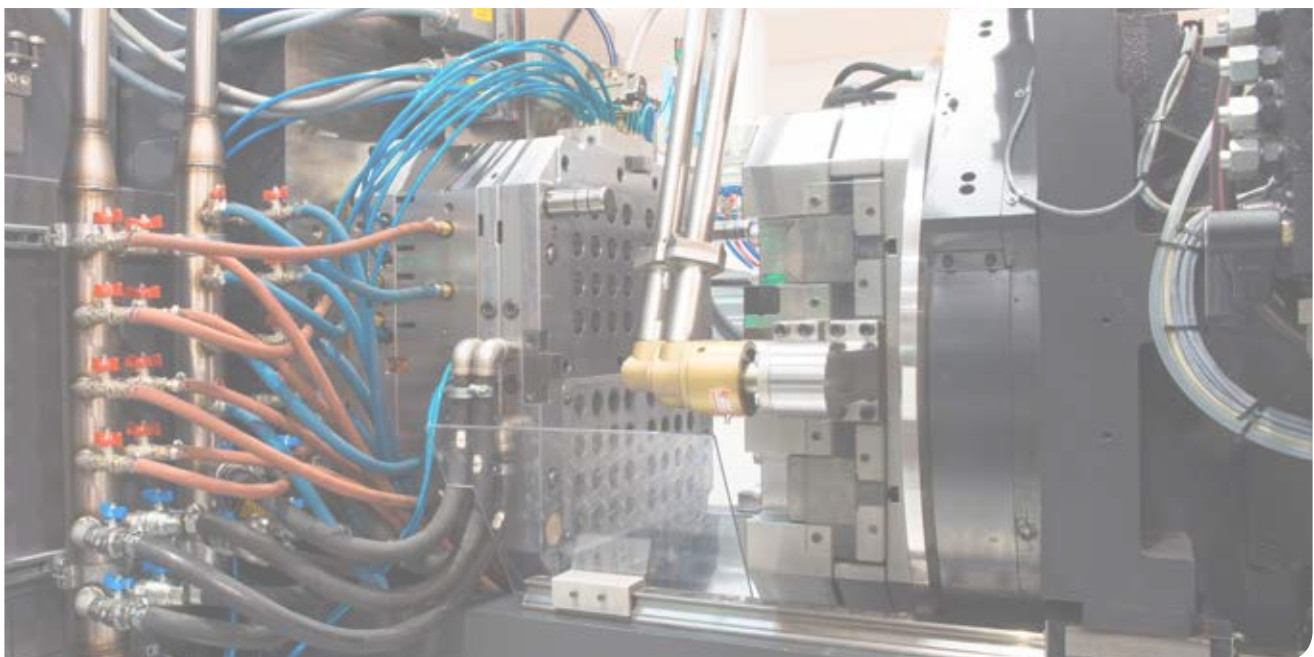
Injection moulding machines, forming presses, stretch-blow machines

## Test and inspection installations











Chassis test benches, material inspection systems, inspection of hydraulic components

## Hydraulic components and subsystems




Valve block systems, power packs, tank monitoring








# Products overview




Pressure transmitters			
NAT 8252		<b>Industrial pressure transmitter</b> <a href="http://www.trafag.com/H72303">www.trafag.com/H72303</a>	Compact and robust all-rounder with many design variants and options. First choice for standard applications with electric connection M12x1, industry standard or Deutsch DT04-3pole/-4pole.
NAH 8253		<b>Precision pressure transmitter</b> <a href="http://www.trafag.com/H72300">www.trafag.com/H72300</a>	For applications in which high precision or absolute pressure measurement is required together with unusually high long-term stability. Optionally available with increased electric strength of 500 VAC.
NAH 8254		<b>Pressure transmitter with increased accuracy</b> <a href="http://www.trafag.com/H72304">www.trafag.com/H72304</a>	For applications in which an increased precision is required or for standard applications with increased operating temperatures.
EPI 8287		<b>Industrial pressure transmitter</b> <a href="http://www.trafag.com/H72317">www.trafag.com/H72317</a>	Robust all-rounder with many design variants and options. First choice for standard applications with electric connection EN 175301-803-A or when an AISI316L steel housing is desired.
EPN/EPNCR 8298		<b>Engine pressure transmitter</b> <a href="http://www.trafag.com/H72312">www.trafag.com/H72312</a>	For high pressures up to 2500 bar.
ECT 8472		<b>Industrial pressure transmitter</b> <a href="http://www.trafag.com/H72324">www.trafag.com/H72324</a>	If absolute pressure measurement is required or in contact with corrosive media (with housing options in various steel variants or titanium).
ECT 8473		<b>Industrial pressure transmitter with increased accuracy</b> <a href="http://www.trafag.com/H72326">www.trafag.com/H72326</a>	For low pressure applications, absolute pressure measurements with increased precision and in contact with corrosive media.
CMP 8270		<b>CANopen Miniature transmitter</b> <a href="http://www.trafag.com/H72614">www.trafag.com/H72614</a>	With CANopen output signal, available in various precision classes up to 0.1 %, absolute and relative pressure measurement, measurement ranges from 0.2 to 600 bar.
NAH 8254 20 kHz		<b>Pressure transmitter for highly dynamic pressure curves</b> <a href="http://www.trafag.com/H70604">www.trafag.com/H70604</a>	For measurement of highly dynamic pressure curves and short-term pressure peaks with a signal cut-off frequency of 20 kHz.
FPT 8235		<b>Flush membrane transmitter</b> <a href="http://www.trafag.com/H72316">www.trafag.com/H72316</a>	For applications with viscous or clogging media.



# Products overview




Level measurement			
ECL 8439		<b>Submersible pressure transmitters</b> <a href="http://www.trafag.com/H72336">www.trafag.com/H72336</a>	Level probe for hydrostatic measurement of fill levels with 0.1 to 2 bar, measurement ranges configurable using smartphone app.
TFC		<b>Float level sensor</b> <a href="http://www.trafag.com/H20040">www.trafag.com/H20040</a>	Float sensor for measurement of fill levels up to 2 m.
TFS		<b>Float level switch</b> <a href="http://www.trafag.com/H20041">www.trafag.com/H20041</a>	Float switch for fill levels up to 2 m.

Electronic pressure switches and transmitters			
DPS 8381		<b>Pressure switch with display and steel sensor</b> <a href="http://www.trafag.com/H72321">www.trafag.com/H72321</a>	First choice for pressure measurement with display. Continuous analog signal as well as 1 to 2 switch outputs can be parameterized with app via NFC.
DPC 8380		<b>Pressure switch with display and ceramic sensor</b> <a href="http://www.trafag.com/H72320">www.trafag.com/H72320</a>	For applications with absolute pressure measurement, low pressures or contact with corrosive media. Continuous analog signal as well as 1 to 2 switch outputs can be parameterized with app via NFC.
NAT 8252		<b>Industrial Pressure Switch</b> <a href="http://www.trafag.com/H72303">www.trafag.com/H72303</a>	Compact, robust electronic pressure switch. Can be parameterized using SMI and smartphone app. First choice for standard applications.
NAH 8254		<b>Pressure switch with increased accuracy</b> <a href="http://www.trafag.com/H72304">www.trafag.com/H72304</a>	For applications in which an increased precision is required of for standard applications with increased operating temperatures. Can be parameterized using SMI and smartphone app.
EPN-S 8320		<b>Electronic Pressure Switch</b> <a href="http://www.trafag.com/H72333">www.trafag.com/H72333</a>	For applications with electrical connection EN 175301-803-A and special applications. Factory-set switch point or programmable on site with Trafag Sensor Communicator SC.

# Products overview

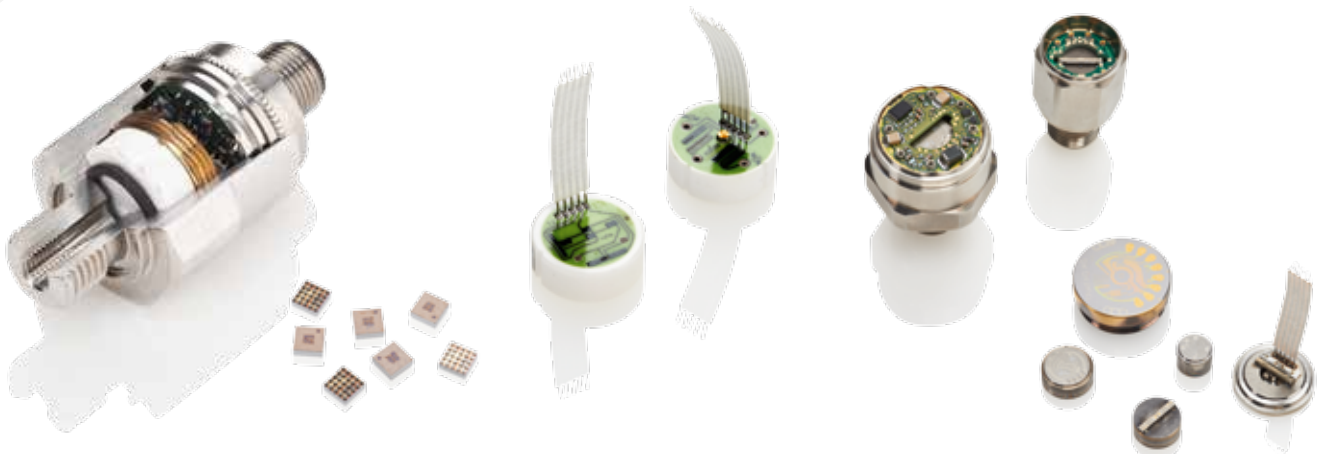
Mechanical Pressure Switches			
PST4B 9B4		<b>Pressure switch with bellow sensor</b> <a href="http://www.trafag.com/H72367">www.trafag.com/H72367</a>	For low pressure ranges and pulsation-free pressure curves. Gas-tight variants available.
PST4K 9K4		<b>Pressure switch with piston sensor</b> <a href="http://www.trafag.com/H72369">www.trafag.com/H72369</a>	For high pressure ranges and pressure curves with pulsations.
PST4M 9M4		<b>Pressure switch with membrane sensor</b> <a href="http://www.trafag.com/H72368">www.trafag.com/H72368</a>	For medium pressure ranges and pressure curves with pulsations.

Temperature measurement and monitoring			
DTP 8180		<b>Temperature switch with display</b> <a href="http://www.trafag.com/H72352">www.trafag.com/H72352</a>	Electronic temperature transmitter/switch with display. Continuous analog signal as well as 1 to 2 switch outputs can be parameterized with app via NFC.
ISP/ISPT 474		<b>Compact thermostat</b> <a href="http://www.trafag.com/H72113">www.trafag.com/H72113</a>	Thermostat in block construction with switch output.

Accessories			
CAN2USB		<b>CANopen Configuration tool</b> <a href="http://www.trafag.com/H70696">www.trafag.com/H70696</a>	Interface with PC software for analysis and configuration of the CANopen pressure transmitter CMP 8270.
SMI		<b>Sensor Master Interface</b> <a href="http://www.trafag.com/H72618">www.trafag.com/H72618</a>	For configuration of the electronic pressure switch NAT 8252 and NAH 8254 as well as the level sensor ECL 8439.
SC		<b>Sensor Communicator</b> <a href="http://www.trafag.com/H73699">www.trafag.com/H73699</a>	For configuration of the pressure transmitter NAH 8253, EPN/EPNCR 8298, CMP 8270 and of the electronic pressure switch EPN-S 8320.

# Sensor technology

Key components of Trafag pressure transmitters are pressure sensors based on thin-film-on-steel technology (welded design without O-ring) or thick-film-on-ceramic technology. Both sensor technologies come from Trafag's own production and were developed in-house together with the ASIC (application-specific microchip). As a result, pressure sensors and electronics work in perfect partnership and achieve a unique level of long-term stability and reliability, even under the most adverse environmental conditions.



## NAT 8252

### Industrial Pressure Transmitter



#### Features

- Excellent long-term stability
- Optional: 5-fold overpressure resistance

#### Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi
Output signal	4 ... 20 mA, 0.5 ... 4.5 VDC, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 1 ... 10 VDC, 0.1 ... 10.1 VDC, 0.5 ... 4.5 VDC ratiometric
Accuracy @ 25°C typ.	± 0.5 % FS typ.
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +125°C



Data sheet

[www.trafag.com/H72303](http://www.trafag.com/H72303)

# NAH 8253

## Precision pressure transmitter



### Features

- Accuracy classes 0.1%, 0.15%, 0.3%
- Relative and absolute pressure measurement
- Optional: 500 VAC dielectrical strength

### Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric
Accuracy @ 25°C typ.	± 0.3 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +125°C



Data sheet

[www.trafag.com/H72300](http://www.trafag.com/H72300)



Sensor Communicator SC  
see page 22

# NAH 8254

## Pressure transmitter with increased accuracy



### Features

- Measuring accuracy 0.3 %
- Excellent long-term stability
- Optional: 5-fold overpressure resistance

### Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 0.2 to 0 ... 600 bar 0 ... 3 to 0 ... 7500 psi
Output signal	4 ... 20 mA, 0.5 ... 4.5 VDC, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 1 ... 10 VDC, 0.1 ... 10.1 VDC, 0.5 ... 4.5 VDC ratiometric
Accuracy @ 25°C typ.	± 0.3 % FS typ.
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +125°C



Data sheet

[www.trafag.com/H72304](http://www.trafag.com/H72304)

# EPI 8287

## Industrial pressure transmitter



### Features

- Accuracy classes 0.3%, 0.5%
- Optional: 5-fold overpressure resistance
- Optionally with housing material AISI316L

### Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +125°C



Data sheet

[www.trafag.com/H72317](http://www.trafag.com/H72317)

# EPN/EPNCR 8298

## Engine pressure transmitter



### Features

- Nominal pressure up to 2500 bar (Common Rail) with high pressure threaded connection
- High vibration resistance

### Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 2.5 to 0 ... 2500 bar
Output signal	4 ... 20 mA 0.5 ... 4.5 VDC ratiometric
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +125°C
Approval / conformity	ABS, BV, CCS, DNV-GL, KRS, LRS, NKK, RINA, RMRS



Data sheet

[www.trafag.com/H72312](http://www.trafag.com/H72312)



Sensor Communicator SC  
see page 22



# ECT 8472

## Industrial pressure transmitter



### Features

- Excellent media compatibility
- Relative or absolute pressure measurement
- Titanium version optional
- Frontal membrane optional

### Technical Data

Measuring principle	Thick-film-on-ceramic
Measuring range	0 ... 1 to 0 ... 400 bar 0 ... 15 to 0 ... 5000 psi
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric
Accuracy @ 25°C typ.	± 0.5 % FS typ.
Media temperature	-25°C ... +125°C 400 bar/5000 psi: -10°C ... +125°C
Ambient temperature	-25°C ... +125°C



Data sheet

[www.trafag.com/H72324](http://www.trafag.com/H72324)

# ECT8473

## Industrial pressure transmitter with increased accuracy



### Features

- Measuring ranges from 100 mbar
- Excellent media compatibility
- Relative or absolute pressure measurement
- Titanium version optional
- Frontal membrane optional

### Technical Data

Measuring principle	Thick-film-on-ceramic
Measuring range	0 ... 0.1 to 0 ... 40 bar 0 ... 1.5 to 0 ... 500 psi
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric
Accuracy @ 25°C typ.	± 0.3 % FS typ. (± 0.5 % FS typ., ± 1 % FS typ.)
Media temperature	-25°C ... +125°C
Ambient temperature	-25°C ... +125°C



Data sheet

[www.trafag.com/H72326](http://www.trafag.com/H72326)

# CMP 8270

## CANopen miniature pressure transmitter



### Features

- Different accuracy classes to 0.1 %
- Measurement of pressure and temperature
- CANopen bus protocol DS301/DS404 supports CAN 2.0A/B
- LSS (DS 305 V2.0)
- Optional: 500 VAC dielectrical strength

### Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 0.2 to 0 ... 600 bar 0 ... 3 to 0 ... 7500 psi
Output signal	Bus protocol CANopen DS404
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.
Media temperature	-50°C ... +135°C
Ambient temperature	-40°C ... +125°C



Data sheet

[www.trafag.com/H72614](http://www.trafag.com/H72614)

# NAH 8254 20 kHz

## Pressure transmitter for highly dynamic pressure curves



### Features

- Cut-off frequency 20 kHz
- For highly dynamic pressure curves
- Analogue signal processing
- Measuring accuracy 0.3 %
- Excellent long-term stability

### Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 0.2 to 0 ... 600 bar 0 ... 3 to 0 ... 7500 psi
Output signal	4 ... 20 mA, 0.5 ... 4.5 VDC ratiometric
Accuracy @ 25°C typ.	± 0.3 % FS typ.
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +125°C



Flyer

[www.trafag.com/H70604](http://www.trafag.com/H70604)

# FPT 8235

## Flush membrane transmitter



### Features

- Flush membrane with smooth and plain surface
- Completely welded sensor system
- Accuracy NLH 0.1% FS typ.
- Excellent long-term stability

### Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 1 to 0 ... 100 bar 0 ... 15 to 0 ... 1500 psi
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC
Accuracy @ 25°C typ.	± 0.4 % FS
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +85°C



Data sheet

[www.trafag.com/H72316](http://www.trafag.com/H72316)

# ECL 8439

## Submersible pressure transmitter



### Features

- Suitable for thick and viscous media
- Different materials for optimum media compatibility
- Lightning protection integrated
- Configurable measuring ranges

### Technical Data

Measuring principle	Thick-film-on-ceramic
Measuring range	0 ... 0.1 to 0 ... 2.0 bar 0 ... 1.5 to 0 ... 30 psi
Output signal	4 ... 20 mA
Accuracy @ 25°C typ.	± 0.3 % FS typ. Range 0 ... 0.1 to 0 ... 0.2 bar: ± 0.5 % FS typ.
Media temperature	max. -25°C ... +70°C
Ambient temperature	max. -25°C ... +70°C



Data sheet

[www.trafag.com/H72336](http://www.trafag.com/H72336)

## Configuration of the measuring ranges

### Sensor Master Interface SMI



### Features

- Fast and easy operation via Android App "Sensor Master Communicator SMC"
- Measuring range adjustment on submersible pressure transmitter ECL
- Read out of sensor data
- Reset pressure measurement instruments to factory settings

### Technical Data

Ambient temperature	0°C ... +40°C
Supply voltage	5 VDC, ±0.25, 1 A (Supply via USB interface)
Protection	IP20
Storage temperature	-10°C ... +50°C
Dimensions	LxWxH: 120x76x27 mm
Communication SMC/SMI	via Bluetooth LE
Operation Interface	via Android App "Sensor Master Communicator SMC"

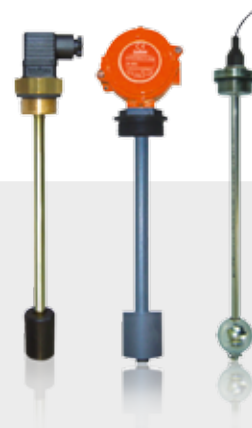


Data sheet

[www.trafag.com/H72618](http://www.trafag.com/H72618)

# TFC

## Float level sensor



### Features

- Measuring resolution 5, 10, 20 mm
- Analogue output 4 ... 20 mA, 0 ... 5 VDC, 0 ... 10 VDC
- Optional : Temperature sensor PT1000
- Protection IP65

### Parameters

Type	TFCO	TFCS	TFCP
Float	Spansil - Butadiene - Acrylonitrile Copolymer	Stainless steel AISI316	PVDF - PP - PVC
Ambient temperature	-30 ... + 55°C	-30 ... + 55°C	-30 ... + 55°C
Media temperature	to 105°C, optional 120°C	to 105°C, optional 150°C	to 130°C (PVDF) to 90°C (PP) to 60°C (PVC)
Working pressure <sup>1)</sup>	max. 20 bar	max. 50 bar	max. 6 bar (PVDF or PVC) max. 3 bar (PP)

<sup>1)</sup> Depending on float type



Data sheet

[www.trafag.com/H20040](http://www.trafag.com/H20040)

# TFS

## Float level switch



### Features

- Up to 6 switch points
- Protection IP65
- Optional: Temperature sensor PT1000 or thermostat
- Potted electrical contacts

### Parameters

Type	TFSO	TFSS	TFSP
Float	Spansil - Butadiene - Acrylonitrile Copolymer	Stainless steel AISI316	PVDF - PP - PVC
Ambient temperature	-30 ... + 55°C	-30 ... + 55°C	-30 ... + 55°C
Media temperature	to 105°C, optional 120°C	to 105°C, optional 150°C or 180°C	to 130°C (PVDF) to 90°C (PP) to 60°C (PVC)
Working pressure <sup>1)</sup>	max. 20 bar	max. 50 bar	max. 6 bar (PVDF or PVC) max. 3 bar (PP)

<sup>1)</sup> Depending on float type



Data sheet

[www.trafag.com/H20041](http://www.trafag.com/H20041)

# DPS 8381

## Display pressure switch and transmitter



**Google Play**  
NFC

### Features

- Parameterization also via NFC-smartphone App (Android)
- Display and electrical connection are independently rotatable 335°/343°
- Analogue output switchable mA or V
- Integrated datalogger
- Pressure range adjustable

Technical Data	
Measuring principle	Thin-film-on-steel
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi adjustable
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V
Switching output	2 transistors PNP
Accuracy @ 25°C typ.	± 0.5 % FS typ.
Media temperature	-25°C ... +85°C
Pressure unit for display	bar, psi, MPa, kPa, m WC, mm WC, %, user scale
Logger	Ring buffer: 3518 data points Sampling time: 0.1 ... 999.9 s, Off (0)

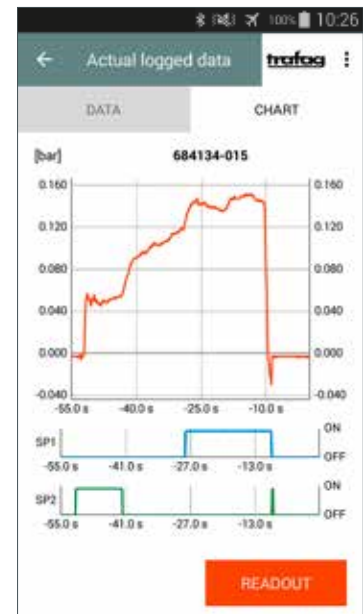


Data sheet

[www.trafag.com/H72321](http://www.trafag.com/H72321)

## Configuration App Trafag Sensor Master

With the free Android app "Trafag Sensor Master", available in the Google Play Store, the parameters of the Trafag display pressure switches DPS 8381, DPC 8380 and of the temperature switch DTP 8180 can be set very simple through a smartphone. In addition to a variety of parameters for the switchpoints, the measurement range can be scaled. Communication is conducted via the NFC interface on the display. Through this interface, the measurement values of the internal data logger can also be read out and then processed further via smartphone.



# DPC 8380

## Display pressure switch and transmitter




  
 NFC

**Features**

- Parameterization also via NFC-smartphone App (Android)
- Display and electrical connection are independently rotatable 335°/343°
- Analogue output switchable mA or V
- Integrated datalogger
- Pressure range adjustable

Technical Data	
Measuring principle	Thick-film-on-ceramic
Measuring range	0 ... 0.2 to 0 ... 100 bar 0 ... 2.5 to 0 ... 1500 psi adjustable
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V
Switching output	2 transistors PNP
Accuracy @ 25°C typ.	± 0.5 % FS typ.
Media temperature	-25°C ... +85°C
Pressure unit for display	bar, psi, MPa, kPa, m WC, mm WC, %, user scale
Logger	Ring buffer: 3518 data points Sampling time: 0.1 ... 999.9 s, Off (0)

 Data sheet [www.trafag.com/H72320](http://www.trafag.com/H72320)

# DTP 8180

## Temperature switch and transmitter




  
 NFC

**Features**

- Parameterization also via NFC-smartphone App (Android)
- Display and electrical connection are independently rotatable 335°/343°
- Analogue output switchable mA or V
- Integrated datalogger
- Temperature measuring range adjustable

Technical Data	
Measuring principle	PT 1000, DIN EN 60751 class A, 2 conductors
Measuring range	-50°C ... +150°C / -58°F ... 302°F adjustable 50 ... 100 % FS
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V
Switching output	2 transistors PNP
Accuracy @ 25°C typ.	± 0.5 % FS typ.+ temperature sensor error
Temperature unit for display	°C, °F, K
Logger	Ring buffer: 3518 data points Sampling time: 0.1 ... 999.9 s, Off (0)

 Data sheet [www.trafag.com/H72352](http://www.trafag.com/H72352)

# NAT 8252

## Industrial pressure switch



GET IT ON  
Google Play

trafag

**Features**

- 1 or 2 PNP transistors
- Parameterization via smartphone App (Android)
- Switching current up to 400 mA
- Excellent long-term stability
- Optional: 5-fold overpressure resistance

Technical Data	
Measuring principle	Thin-film-on-steel
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi
Output signal	Switching output: 1 or 2 PNP transistors
Accuracy @ 25°C typ.	± 0.5 % FS typ.
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +125°C



Data sheet

[www.trafag.com/H72303](http://www.trafag.com/H72303)

## Setting the switching points

### Sensor Master Interface SMI



GET IT ON  
Google Play

Bluetooth

**Features**

- Fast and easy operation via Android App "Sensor Master Communicator SMC"
- Parameterization of switching points on NAX pressure switches
- Read out of sensor data
- Reset pressure measurement instruments to factory settings

Technical Data	
Ambient temperature	0°C ... +40°C
Supply voltage	5 VDC, ±0.25, 1 A (Supply via USB interface)
Protection	IP20
Storage temperature	-10°C ... +50°C
Dimensions	LxWxH: 120x76x27 mm
Communication SMC/SMI	via Bluetooth LE
Operation Interface	via Android App "Sensor Master Communicator SMC"



Data sheet

[www.trafag.com/H72618](http://www.trafag.com/H72618)



# NAH 8254

## Pressure switch with increased accuracy




**Features**

- Switching accuracy 0.3 %
- 1 or 2 PNP transistors
- Parameterization via smartphone App (Android)
- Switching current up to 400 mA
- Optional: 5-fold overpressure resistance

Technical Data	
Measuring principle	Thin-film-on-steel
Measuring range	0 ... 0.2 to 0 ... 600 bar 0 ... 3 to 0 ... 7500 psi
Output signal	Switching output: 1 or 2 PNP transistors
Accuracy @ 25°C typ.	± 0.3 % FS typ.
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +125°C

 Data sheet [www.trafag.com/H72304](http://www.trafag.com/H72304)



Sensor Master Interface SMI

# EPN-S 8320

## Electronic pressure switch




**Features**

- Rugged design for harsh environments
- Wide temperature range
- Excellent long-term stability
- Very compact design
- Switchpoint factory set or programmable on site with Trafag Sensor Communicator SC

Technical Data	
Measuring principle	Thin-film-on-steel
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi
Output signal	Transistor (open source)
Accuracy @ 25°C typ.	± 0.5 % FS typ. (Switchpoint)
Media temperature	-40°C ... +125°C
Ambient temperature	-40°C ... +125°C
Approval / conformity	DNV-GL, RMRS

 Data sheet [www.trafag.com/H72333](http://www.trafag.com/H72333)



Sensor Communicator SC  
see page 22

# PST4B 9B4

## Picostat Pressure switch with bellow sensor



### Features

- Improved vibration resistance
- For low pressure ranges
- High repeatability

### Technical Data

Measuring principle	Bellow
Measuring range	-0.6 ... 3.4 to 4 ... 40 bar -8 ... 45 to 60 ... 500 psi
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 0.5 % FS typ.
Media temperature	Standard: -25°C ... +125°C sensor 789/790/791: -40°C ... +125°C
Approval / conformity	ABS, BV, CCS, DNV-GL, GL, KRS, LR, NKK, RINA, RMRS EN60730-1/ EN60730-2-6: Typ 2.B.H



Data sheet

[www.trafag.com/H72367](http://www.trafag.com/H72367)

# PST4K 9K4

## Picostat Pressure switch with piston sensor



### Features

- High pressure ranges
- Robust even with pulsating pressure curves

### Technical Data

Measuring principle	Piston
Measuring range	1 ... 10 to 40 ... 400 bar 14 ... 150 to 580 ... 5800 psi
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 1.0 % FS typ.
Media temperature	-25°C ... +125°C
Ambient temperature	-25°C ... +85°C
Approval / conformity	ABS, BV, CCS, GL, KRS, LRS, RINA, EN60730-1/ EN60730-2-6: Typ 2.B.H



Data sheet

[www.trafag.com/H72369](http://www.trafag.com/H72369)

# PST4M 9M4

## Picostat Pressure switch with membrane sensor



### Features

- For medium pressure ranges
- Robust even with pulsating pressure curves

### Technical Data

Measuring principle	Membrane
Measuring range	1 ... 10 to 10 ... 100 bar 14 ... 150 to 150 ... 1500 psi
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 2.0 % FS typ.
Media temperature	0°C ... +80°C
Ambient temperature	0°C ... +80°C
Approval / conformity	ABS, BV, CCS, GL, KRS, LRS, RINA, EN60730-1/ EN60730-2-6: Typ 2.B.H



Data sheet

[www.trafag.com/H72368](http://www.trafag.com/H72368)

# ISP/ISPT 474

## Picotherm Thermostat



### Features

- Compact design
- Rugged housing
- High repeatability
- Protection IP65
- Any mounting position possible

### Technical Data

Measuring range	+5°C ... +95°C to +20°C ... +150°C
Output signal	Floating change-over contact
Switching differential	Not adjustable
Repeatability	± 1 % FS typ.
Approval / conformity	Marine EU RO MR Type Approval



Data sheet

[www.trafag.com/H72113](http://www.trafag.com/H72113)

# SMI

## Sensor Master Interface



GET IT ON Google Play  
Bluetooth

### Features

- Read out of sensor data
- Parameterization of switching points on NAX pressure switches
- Measuring range adjustment on submersible pressure transmitter ECL
- Fast and easy operation via Android App "Sensor Master Communicator SMC"
- Reset pressure measurement instruments to factory settings

Technical Data	
Ambient temperature	0°C ... +40°C
Supply voltage	5 VDC, ±0.25, 1 A (Supply via USB interface)
Protection	IP20
Storage temperature	-10°C ... +50°C
Dimensions	LxWxH: 120x76x27 mm
Communication SMC/SMI	via Bluetooth LE
Operation Interface	via Android App "Sensor Master Communicator SMC"

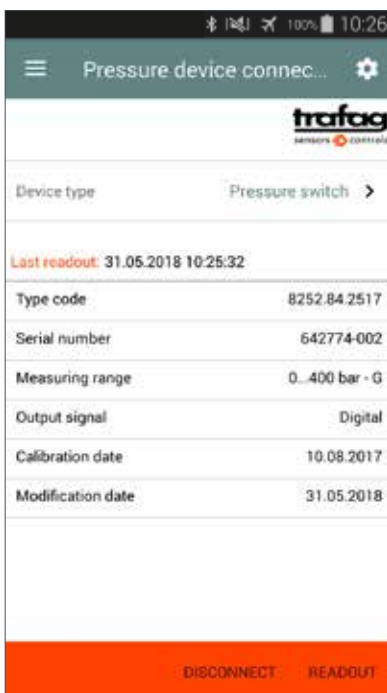


Data sheet

[www.trafag.com/H72618](http://www.trafag.com/H72618)



### Reading out device data



Pressure device connection

trafag sensors controls

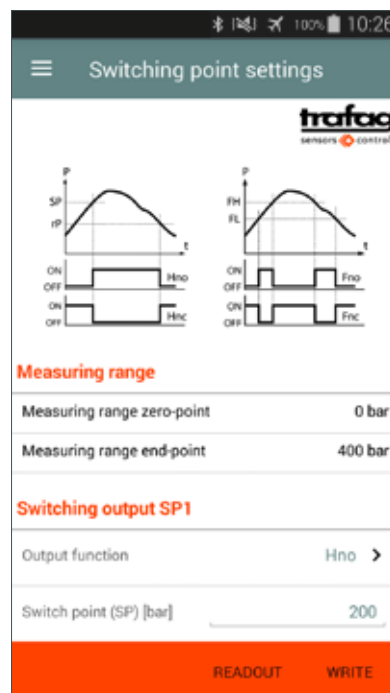
Device type: Pressure switch

Last readout: 31.05.2018 10:25:32

Type code	8252.84.2517
Serial number	642774-002
Measuring range	0...400 bar · G
Output signal	Digital
Calibration date	10.08.2017
Modification date	31.05.2018

DISCONNECT READOUT

### Parameterization of switching points on NAX pressure switches



Switching point settings

trafag sensors controls

Measuring range

Measuring range zero-point	0 bar
Measuring range end-point	400 bar

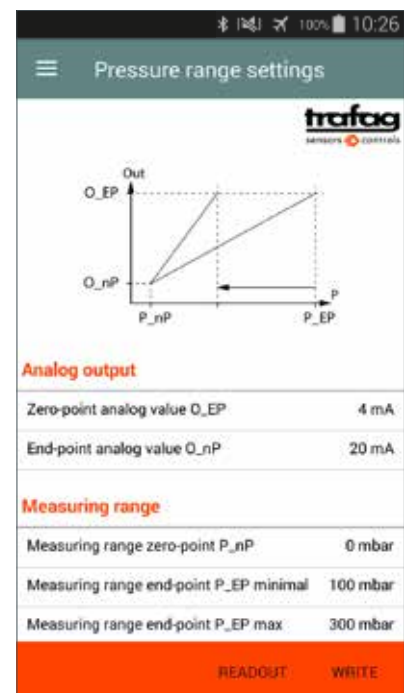
Switching output SP1

Output function: Hno

Switch point (SP) [bar]: 200

READOUT WRITE

### Measuring range adjustment on submersible pressure transmitter ECL



Pressure range settings

trafag sensors controls

Analog output

Zero-point analog value O_EP	4 mA
End-point analog value O_nP	20 mA

Measuring range

Measuring range zero-point P_nP	0 mbar
Measuring range end-point P_EP minimal	100 mbar
Measuring range end-point P_EP max	300 mbar

READOUT WRITE

# CAN2USB

## CANopen configuration tool



### Features

- Configuration of Trafags pressure transmitter CMP 8270 via USB
- Easy to use visual user interface
- Integrated datalogger
- Complete set available at Trafag AG
- System requirements: Windows 7, Windows 8, Windows 10, USB 2.0 or higher

### Technical Data

Configuration of CANopen devices is hard for non-experts. Most available software is developed for experts with much background knowledge and experience in programming such devices. Neither the software user interface nor the interface hardware, such as plugs and adapters, are designed for occasional users.

The CMP CANopen Configuration tool, developed and produced for Trafag CMP 8270 CANopen pressure transmitter, is the perfect solution for this: Easy-to-use software interface and a USB-to-CANopen dongle. It allows configuration of all CANopen parameters and access to the complete object dictionary. Live display of the actual measurements of pressure and temperature and an integrated logger with export function offers easy monitoring of the CANopen bus communication.



Flyer

[www.trafag.com/H70696](http://www.trafag.com/H70696)



### Content of delivery:

- CAN2USB adapter
- Cable from adapter to USB
- T-connector M12 F-F-M
- Terminator 120 Ω
- USB Memory stick with software and manual for CAN2USB and CMP 8270

### Recommended accessory (not included):

- CMP0.6M: CANopen Pressure Transmitter 8270 CMP with pressure range 0 ... 0.6 bar
- C29161: Pressure applicator



# SC

## Sensor Communicator



### Features

- Read out of sensor data
- Adjustment of set point or zero point and span
- Real time pressure measuring
- Software update and battery charge with USB-interface

### Technical Data

- Identification of device data: Model, signal output, type plate, manufacturing date
- Setting of switchpoint (8320 EPN-S)
- CANopen: Setting of Node-ID and baudrate
- Reset to factory settings

### Content of delivery:

- 1 pce SC incl. batteries
- 1 pce USB-cable
- 1 pce Measuring bridge cable
- Adapter cable for corresponding device types can be ordered separately



Instruction

[www.trafag.com/H73699\\_en](http://www.trafag.com/H73699_en)

# DVB

## Diagnostic valve block

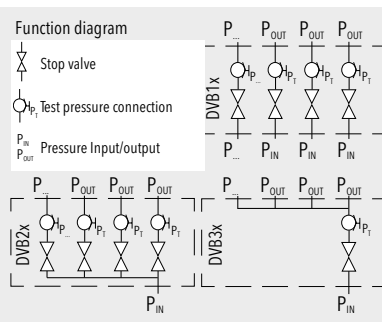


### Features

- Function tests during operation (no interruption necessary) with stop valve and test connection

### Technical Data

Pressure	-0.8 ... 100 bar
Ambient temperature	-20°C ... +120°C



Data sheet

[www.trafag.com/H72361](http://www.trafag.com/H72361)

# THP...

## Hand pump



### Features

- For testing of pressure transmitters and pressure switches

### Technical Data

Connection	G1/4" female
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### Standard products (extra short lead time)

Product No	Range [bar]	
THP30	-0.85 ... +25	
THP700	0 ... 700	Resolution 0.2 bar

# V6/V7

## Stop valve



### Features

- Allows replacement of instruments without interruption of process (max. 40 bar)

### Technical Data

Material	1.4305 / FKM
Pressure	max. 600 bar
Media temperature	-25°C ... +125 °C

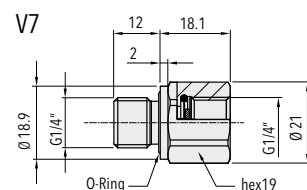
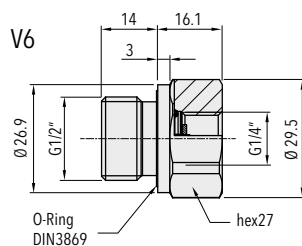


Data sheet

[www.trafag.com/H72258](http://www.trafag.com/H72258)

### Standard products (extra short lead time)

Product No		Connection
V6	For water, air, light-crude, heavy oil	G1/2" male - G1/4" female
V7	For water, air, light-crude, heavy oil	G1/4" male - G1/4" female



# Reliable quality

Worldwide represented, globally trusted, Swiss based



## Headquarters

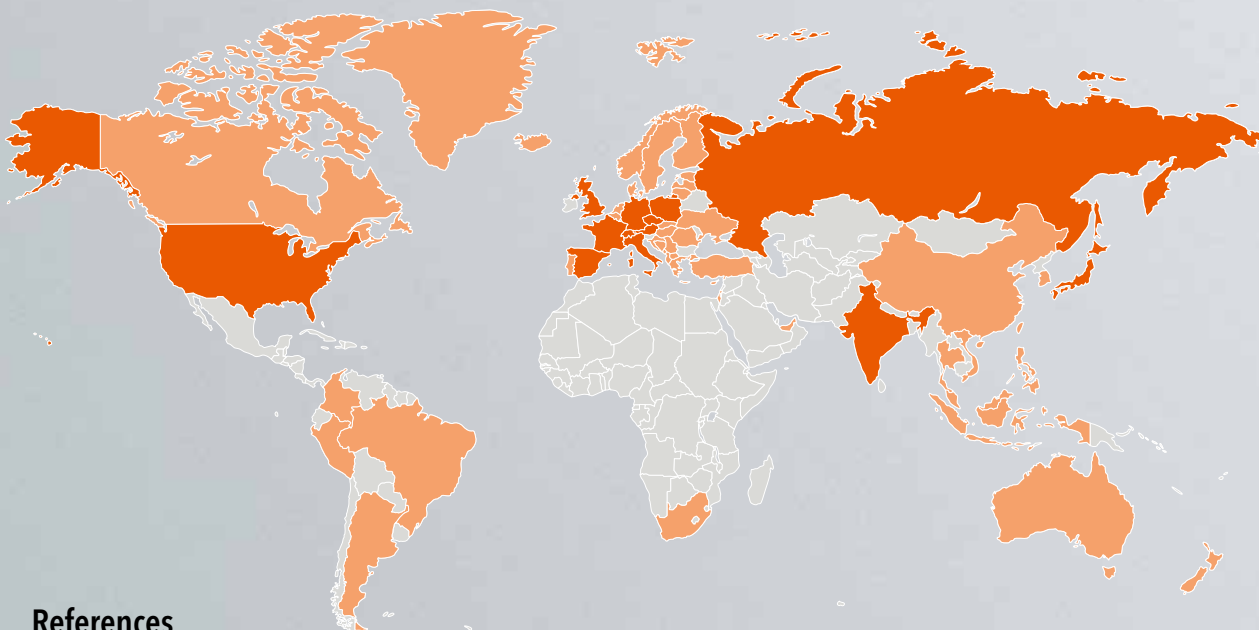
Switzerland

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Cyprus	Netherlands	Turkey
Denmark	New Zealand	Ukraine
Estonia	Norway	United Arab Emirates
Finland	Philippines	Vietnam



## References

ABB | AIT | AKG | Alstom | Areva T&D | Atos | AVL | Benninghoven | Bharat Heavy Electrical | Blohm & Voss | Bombardier | Bosch Rexroth | BMW Rolls-Royce  
Bühler | Caterpillar | Charmilles | CRRC | Dalian Marine Diesel Ltd. | Detroit Diesel | Deutsche Bahn AG | Doosan Group | Dräger | Electroflux | Elektrobudowa S.A.  
Faiveley | Fincantieri | Flender | Goninan | Greenfield | G&W | Hermetic Pumpen | Roche | Hudong Heavy Machinery | Hyundai Heavy Industries | IAV  
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