

Potentially hazardous areas

Ex-approved temperature and pressure monitoring solutions



Products overview

Pressure transmitters



EXNT 8292

6

Pressure transmitter for measuring ranges 0.4 bar to 2'000 bar, maritime approved; optionally hydrogen-compatible material



EXNA 8854

6

Pressure transmitter for measuring ranges from 0.1 bar up to 1'000 bar, media temperature up to 150°C; optionally with flush diaphragm



EXNT 8852/8853

7

Predecessor of product 8854, with similar specifications



EXNAL 8858

7

Predecessor of product 8859, with similar specifications



EXNAL 8859

8

Submersible pressure transmitter for measuring ranges greater than 100 mbar; optionally with titanium housing

Thermostats



EXS 404/414

9

Thermostat with external sensor for switching ranges between -30°C and +350°C



EXAS 409/419

9

Thermostat for monitoring ambient temperature from -30°C to +60°C

Pressure switches



EXP 900/904/912

10

Mechanical pressure switch with bellows sensor, for monitoring pressures between -0.9 bar and 40 bar



EXPK 944/947/953

10

Mechanical pressure switch with piston sensor, for monitoring pressures between 10 bar and 600 bar



EXPD 920/924/932

11

Differential pressure switch with bellows sensor, for pressure differences between -0.6 bar and 16 bar



EC79 approval with EC79 certificate, suitable for hydrogen



With ship approval





Ex-Product lines for pressure and temperature control

Trafag offers a wide range of EX, ATEX and IECEx approved products for pressure and temperature monitoring, offering reliable functionality and safe operation across a spectrum of explosive atmospheres.



The electronic pressure transmitters are based on Trafag's own sensor technologies, thin-film-on-steel and thick-film-on-ceramic as well as complementary high-end piezoresistive sensors for special applications. The wide range of options and features allows a perfect broad spectrum of requirements.



Industrial applications range from air conditioning, to engine and shipbuilding to offshore oil and gas platforms. The appeal of Trafag thermostats lies in their high switching point accuracy, even after decades of operation under harsh conditions - without maintenance.



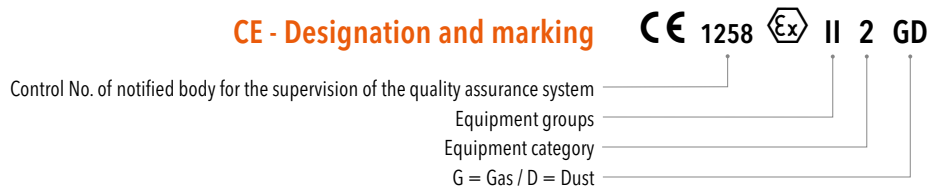
Trafag's mechanical pressure switches offer high vibration resistance and switch point accuracy combined with a robust design - for years of maintenance-free operation in harsh conditions. Different sensors based on the bellow, diaphragm and piston principle cover a wide range of pressure ranges, media and load cycle profiles.

Trafag offers a broad range of hydrogen-compatible products, with and without Ex approval. To learn more about Trafag's product range for the hydrogen industry, see the dedicated brochure „Hydrogen industry“. www.trafag.com/H70559

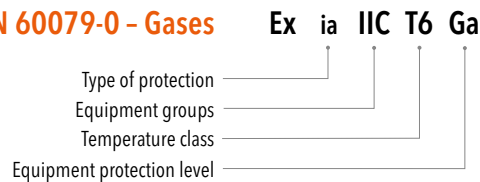


Marking of ATEX and IECEx approved products

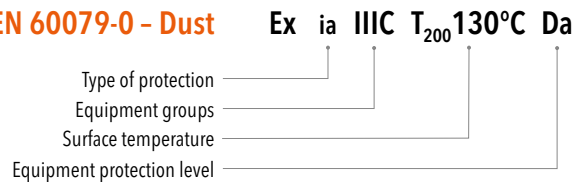
CE - Designation and marking



IEC/EN 60079-0 – Gases



IEC/EN 60079-0 – Dust



EN 50303 - Mining



Explanation

Equipment groups	I	Mining
	II	All other applications
Equipment category	1	Can be used in zone 0 (gas) and 20 (dust) of potentially explosive atmospheres. Level of protection is assured in the event of two faults occurring independently of each other.
	2	Can be used in zone 1 (gas) and 21 (dust) of potentially explosive atmospheres. Level of protection is assured in the event of one equipment fault.
	3	Can be used in zone 2 (gas) and 22 (dust) of potentially explosive atmospheres. Level of protection is assured in the event of normal operation.
Group	IIC	For gases (hydrogen, acetylene)
	IIIC	For dust (conductive dust)
Equipment protection level	GD	G = Gas, D = Dust
	Ga	Zone 0 = Category 1 in ATE X
	Da	Zone 20 = Category 1 in ATE X
	Ma (M1)	Fully functional and safe when atmosphere is present, requires means to cope with two independent failures
	Mb (M2)	Intended to be de-energised in the presence of an explosive atmosphere
Type of protection	ia	Intrinsically safe
Temperature class	T	Defines ignition temperature and permissible temperature of equipment surface
Surface temperature	T ₂₀₀	Defines maximum surface temperature with 200 mm dust layer

EXNT 8292

Ex Pressure Transmitter



Optional:
hydrogen-compatible sensor

- II 1G Ex ia IIC T4/T6 Ga
- II 1D Ex ia IIIC T₂₀₀ 160°C Da
- I M1 Ex ia I Ma
- II 1/2G Ex ia IIC T4/T6 Ga/Gb
- EC79/2009 certified by the KBA Kraftfahrt-Bundesamt
- Pressure ranges from 0.4 to 2000 bar
- Optional: hydrogen-compatible sensor
- Fully welded sensor system

Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 0.4 to 0 ... 2000 bar 0 ... 5 to 0 ... 30000 psi
Output signal	4 ... 20 mA
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.
Media temperature	Max. -40°C ... +120°C
Ambient temperature	Max. -40°C ... +120°C
Approval / conformity	ATEX, IECEx, UKEX, EC 79 DNV-GL, KRS, RMRS

Data sheet

www.trafag.com/H72329

EXNA 8854

Ex Pressure Transmitter



- II 1G Ex ia IIC T3 ... T6 Ga
- II 1D Ex ia IIIC T₂₀₀ 145°C Da
- I M1 Ex ia I Ma
- Pressure ranges starting from 100 mbar
- Versions with frontal or flush diaphragm
- Media temperature up to 150°C

Technical Data

Measuring principle	Piezoresistive
Measuring range	0 ... 0.1 to 0 ... 1000 bar
Output signal	4 ... 20 mA
Media temperature	T3: -40°C ... +150°C T4: -40°C ... +100°C T6: -40°C ... +50°C
Approval / conformity	ATEX, IECEx DNV-GL

Data sheet

www.trafag.com/H72334

EXNT 8852/8853

Ex Pressure Transmitter



- II 1G Ex ia IIC T3 ... T6 Ga
II 1D Ex ia IIIC T₂₀₀ 125°C Da
I M1 Ex ia I Ma
- Pressure ranges starting from 100 mbar
- Versions with frontal or flush diaphragm
- Media temperature up to 150°C
- Optional: lightning protection (IEC 61000-4-5), 10kA (8/20 µs)

Technical Data

Measuring principle	Piezoresistive
Measuring range	0 ... 0.1 to 0 ... 1000 bar
Output signal	4 ... 20 mA
Media temperature	T3: -25°C ... +150°C T4: -25°C ... +100°C T6: -25°C ... +55°C
Ambient temperature	T3/T4: -25°C ... +85°C T6: -25°C ... +55°C
Approval / conformity	ATEX DNV-GL

Data sheet

www.trafag.com/H72227

EXNAL 8858

Ex Submersible Pressure Transmitter



- II 1G Ex ia IIC T3 ... T6 Ga
II 1D Ex ia IIIC T₂₀₀ 125°C Da
I M1 Ex ia I Ma
- Pressure ranges starting from 100 mbar
- Cable PUR or FEP
- Optional: chemical resistant material, in titanium

Technical Data

Measuring principle	Piezoresistive
Measuring range	0 ... 0.1 to 0 ... 25 bar
Output signal	4 ... 20 mA
Media temperature	T4/T6: -5°C ... +50°C
Ambient temperature	T4/T6: -5°C ... +50°C
Approval / conformity	ATEX DNV-GL

Data sheet

www.trafag.com/H72231

EXNAL 8859

Ex Submersible Pressure Transmitter



- II 1G Ex ia IICT3 ... T6 Ga
II 1D Ex ia IICT₂₀₀ 145°C Da
I M1 Ex ia I Ma
- Pressure ranges starting from 100 mbar
- Cable PUR or FEP
- Optional: chemical resistant material, in titanium

Technical Data

Measuring principle	Piezoresistive
Measuring range	0 ... 0.1 to 0 ... 25 bar
Output signal	4 ... 20 mA
Media temperature	-5°C ... +80°C
Ambient temperature	-5°C ... +80°C
Approval / conformity	ATEX, IECEx DNV-GL

Data sheet

www.trafag.com/H72335



EXS 404/414

Ex Industat



- II 2G Ex db eb IIC T6 Gb
II 2D Ex tb IIIC T₂₀₀ 80°C Db
- Rugged housing
- Compact design
- Diverse mounting positions

Technical Data

Designation of application	Ex industrial thermostat with remote sensor
Measuring range	-30°C ... +40°C to +70°C ... +350°C
Output signal	Floating change-over contact
Switching differential	Not adjustable
Repeatability	± 0.5 % FS typ.
Approval / conformity	ATEX

Data sheet www.trafag.com/H72108

EXAS 409/419

Ex Indu Ambistat



- II 2G Ex db eb IIC T6 Gb
II 2D Ex tb IIIC T₂₀₀ 80°C Db
- Rugged housing
- Compact design
- Protection IP 65

Technical Data

Designation of application	Ex industrial room thermostat
Measuring range	-30°C ... +30°C to 0°C ... +60°C
Output signal	Floating change-over contact
Switching differential	Not adjustable
Repeatability	± 0.5 % FS typ.
Approval / conformity	ATEX

Data sheet www.trafag.com/H72128

EXP 900/904/912

Ex Pressostat



- II 2G Ex db eb IIC T₆ Gb
II 2D Ex tb IIIC T₂₀₀ 80°C Db
- Rugged aluminium housing
- Protection IP66
- Diverse mounting positions

Technical Data

Measuring principle	Bellows
Measuring range	-0.9 ... 1.5 to 4 ... 40 bar
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 1.0 % FS typ.
Media temperature	-40°C ... +150°C
Approval / conformity	ATEX

Data sheet www.trafag.com/H72263

EXPK 944/947/953

Ex Pressostat



- II 2G Ex db eb IIC T₆ Gb
II 2D Ex tb IIIC T₂₀₀ 80°C Db
- Rugged aluminium housing
- Protection IP66
- Diverse mounting positions

Technical Data

Measuring principle	Piston
Measuring range	1 ... 10 to 60 ... 600 bar
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 1.0 % FS typ.
Media temperature	NBR: -30°C ... +100°C FPM: -15°C ... +150°C
Approval / conformity	ATEX

Data sheet www.trafag.com/H72270

EXPD 920/924/932

Ex Differential Pressostat



- I 2G Ex db eb IICT6 Gb
II 2D Ex tb IIIC T₂₀₀ 80°C Db
- Rugged aluminium housing
- Protection IP66
- Diverse mounting positions

Technical Data

Measuring principle	Bellow
Measuring range	-1 ... 6 to -1 ... 18 bar
Differential pressure	-0.6 ... 3.4 to 1 ... 16 bar
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 1.0 % FS typ.
Media temperature	-50°C ... +150°C
Approval / conformity	ATEX

Data sheet

www.trafag.com/H72256



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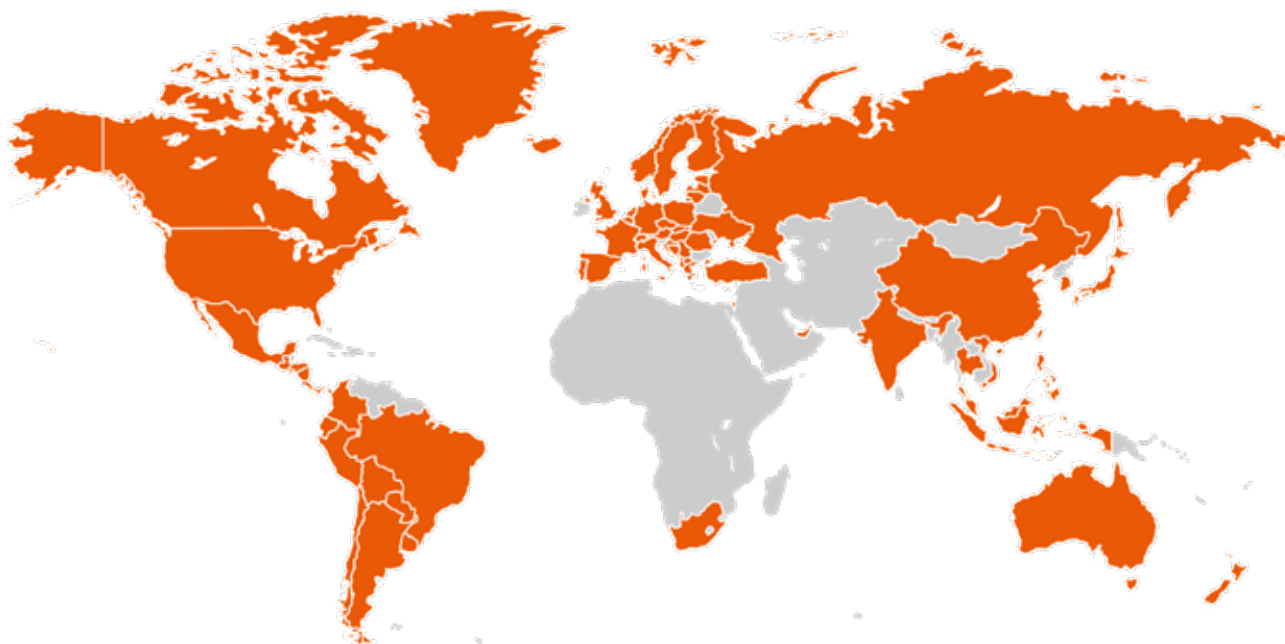
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Subject to change 05/2023 H70659e



Coordinates of representatives can be found at www.trafag.com/trafag-worldwide



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