vibro-meter

Parker Meggitt Energy product portfolio update and integration

presented by Michael Hafner Product Manager

October 2024



AGENDA

- Parker Meggitt Energy product portfolio update and integration
- Meggitt GmbH product discontinuation
- Overview of discontinued products
- Overview of the IQS910 proximity measurement system transmitter
- Sensors and conditioners excel tool
- Q&A



Parker Meggitt new Product Manager for Sensor & Conditioners

Sr. Product manager - Ondřej Tošovský (Toschovskee)









44 years old Czech Republic 9 years in Switzerland 1 daughter

20 years in automotive:

- demand planning
- KAM / PJM / PM

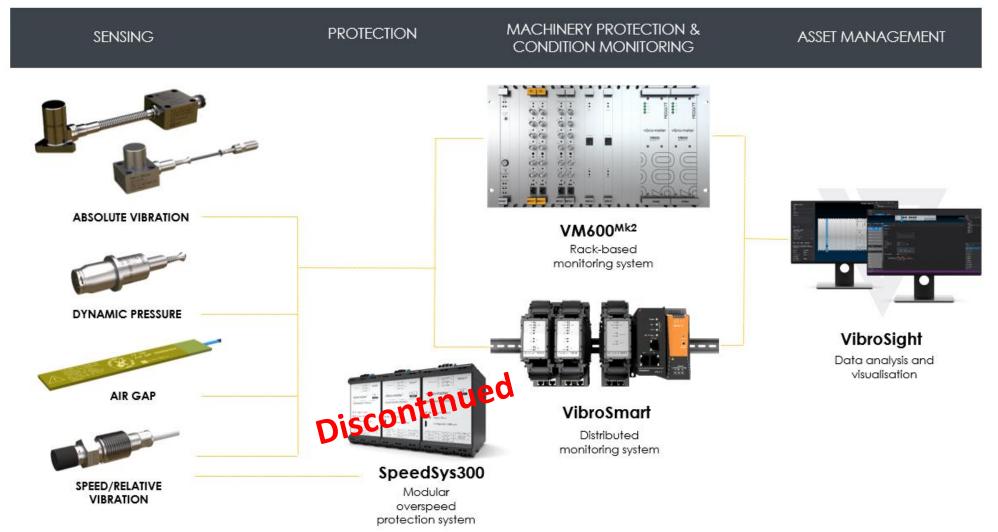
TOYOTA, AUDI,
TE CONNECTIVITY

Values:

- Family first
- "Glass half full"
- Change is good
- Always have fun



Parker Meggitt product portfolio





Sensors and conditioners

Ice detector system – removed from catalogue

- DIC413 signal conditioner 241-413-000-024
- EW140 transducer 447-140-000-011/111/121





Last buy offered and announcement will be sent out in the next weeks

Dynamic Pressure sensors

CP5xx sensors discontinued. Partnership with Piezocryst ended. Replaced by CP7xx new generation of man-made piezoelectrical dynamic pressure sensors

CP515 qualified with MHI and working on switch to CP751 in progress. Will continue to provide this model until qualification with customer completed.







Sensors and conditioners

Galvanic separation

GSI127 new version with improved performance PNR change from 017 to 021. Shipment of the remaining stock (mostly A02, ex version) and automatic confirmation to new version once all stock consumed. Already delivering new versions depending on the ordered configuration. Improvements:

- Suitable for use in safety-related applications: SIL 2 "by design" in accordance with the IEC 61508 functional safety standard.
- Increased dynamic operating and output signal ranges in order to be able to support the output levels from our SIL 2 sensors / measurement chains with diagnostics, without saturating.
- A new sensitivity variant, defined by the ordering option code B11, that is compatible with our new IQS910 signal conditioner ("transmitter") for proximity measurement chains, and with industry-standard 4 to 20 mA loop-powered sensors/transmitters such as the CE687 and PV685 vibration sensors.
- Better overall noise performance: lower noise on output, and increased power supply noise rejection (PSRR) and frame-voltage rejection (CMRR).
- Extended operating temperature range of -20 to 70°C (-4 to 158°F).
 (For reference, it is 0 to 70°C (32 to 158°F) for the current version.)



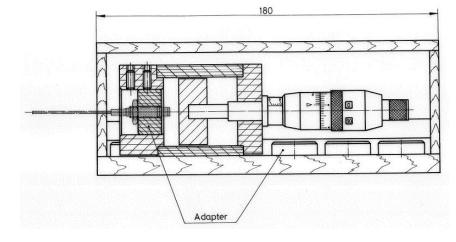
Sensors and conditioners

Proximity measurement chains

TGS108 transducer gap simulator for proximity system discontinued

TQ402-113 to be discontinued

TQ442 keep in the portfolio for the time being



Hydro applications

IVC632 and cable ED112 923-112-000-003 removed from price list and no more available (for CV210 discontinued and replaced by VE210)

Keep the mounting adaptor TA114 800-114-000-011

Air-gap system, new GSU139 and GSU140 gap simulator unit for LS120 or LS121 available



Sensors and conditioners

Piezoelectric transducers

CA175 discontinued, only few spares sold in the last years. Last buy to be offered. Used with LM5000 bearing #9.

CP113 in discussion for discontinuation. Only spares very low volume.

Stay tuned!

CA303 sensor family consolidation and simplification.

Accessories

ABA17x enclosure new version NEMA 4X with A2. Same size, the material used for enclosure is Stainless Steel instead of painted Steel. Effective 1st January 2025. Price increase for A2 option from 167 (IPL 2023) to 500 CHF



ABA17x

ndustrial housings

Robust stainless steel housing

Lockable hinged door with sealing gasket

Device-mounting plate with DIN rails

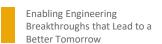
Cable-entry with openings and plugs

Protection ratings: IP66 and NEMA 4X in addition to 4, 12 and 13

Available in standard and Ex versions

ABA171 for up to 2 signal conditioners, ABA172 for up to 4 and ABA173 for up to 8

Wide range of cable fittings (stuffing glands)



Sensors and conditioners

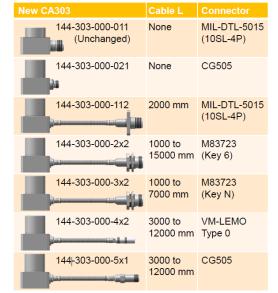
CA303/306 family consolidation

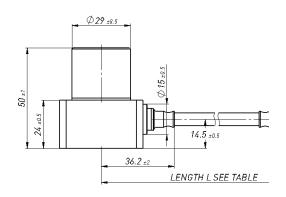
New versions as CA303, discontinue CA306. Same performances, slightly higher height for new version.

-> remove the version with little to no sales in the last 7 years: CA303-211 40-inch length 2 pole MI-cable with double braid and connector type M83723 will be discontinued

CA30X FAMILY

| Current CA303 | Current CA306* | Cable L | Connector |
|-----------------|-----------------|---------------------|---------------------------|
| 144-303-000-011 | 144-306-000-021 | None | MIL-DTL-5015 (10SL-4P) |
| | 144-306-000-011 | None | CG505 |
| 144-303-000-111 | 144-306-000-201 | 2000 mm | MIL-DTL-5015 (10SL-4P) |
| 144-303-000-2x1 | | 1000 to 15000 mm | M83723 (Key 6) |
| 144-303-000-3x1 | | 1000 to 7000 mm | M83723 (Key N) |
| | 144-306-000-1x1 | 3000 to 12000 mm | VM-LEMO Type 0 |
| | 144-306-000-3x1 | 3000 to 12000 mm | CG505 |









Protection and Condition Monitoring

Overspeed SpeedSys300 discontinued Still available from Istec International, not under Meggitt branding

VM600

AMC10/IOC10 Mk2 card in development for VM600 Mk2 Replacement of AMC8/IOC8T to provide a module with 10 channels of temperature or 4-20mA process signal

Available by end of 2025 latest

→ Full VM600 Mk1 replacement solution with this card

VM600 Mk1 plan of end of production for cards, still delivering for new projects for very specific customers. Strategy for spare availability and support to be agreed together with phasing out plan. Communication will be made by end of 2025.



Protection and Condition Monitoring

VM600

MPC4 Mk2 SIL2 new FW included in VS7.6. Warning it is not a certified version and not for use for safety function. Not possible to sign the configuration and put the card in locked mode. See VS release notes. Plan to have updated certification Q1 2025.

SIL MPC4 Mk2, Machinery SIL Protection 640-024-002T002:

Beta release for future 640-024-002-000. Re-Certification is pending.

Cannot be used on SIL certified application, therefore, the Safe operational state is not available.

The card is forced in maintenance mode.

New feature:

- MPSG2-2126 MPC4 Mk2 shall support a new single channel processing named "Magnetic flux".
- . MPSG2-2601 MPC4G2 Generate a Warning if Event of debug log rate is too high
- MPSG2-2605 MPC4G2 To Band measurement, add Peak, Peak to Peak and Average qualifiers

VibroSight

Plan to phase out "Scope" and "Configurator" modules in the coming years. No more support and will be removed from new VibroSight versions.



Enabling Engineering Breakthroughs that Lead to a Better Tomorrow

Meggitt GmbH product discontinuation



Mühlheim / Fribourg, 14 March 2023

To the attention of: Meggitt GmbH / Meggitt SA customers

Subject: Discontinuation of Meggitt GmbH third party products

Dear customer

We are contacting you further to your past purchase of product from Meggitt GmbH product line. While we trust that these products have served you well, Parker Meggitt is committed to offering our customers the best possible measurement and monitoring solitions. This naturally involves updating and replacing items in our product portfolio, to ensure we deliver the best quality products and the most efficient service to our customer

Accordingly, this letter is to inform you about the discontinuation of the following products that are outside of Parker Meggitt strategical focus. There are no functional form fit equivalent, although there are some vibro-meter® with similar functionalities

| Part number / Meggitt GmbH reference | Description | Functional Equivalent product | Similar vibro-meter product by |
|--|---|-------------------------------------|--|
| FAS-110 M5 | Vibration optical accelerometer | No | CE620 444-820-000-11x |
| FT 265 | Frequency-Analogue-Converter- Rotation check detection | No | ODS301 600-046-000-00x |
| SG 102 EEx (3mm) | Cable feedthrough | No | SG 102 / SG 164 800-102-000-00x 00-164-000-01x |
| SG 102 EEx (6,5mm) | Cable feedthrough | No | SG 102 / SG 164 800-102-000-00x 00-164-000-01x |
| ABA200 V2A | Industrial housing | Yes | ABA171 830-171-000-01x |
| ABA300 V2A | Industrial housing | Yes | ABA172 830-172-000-01x |
| ABA400 V2A | Industrial housing | Yes | ABA173 830-173-000-01x |
| El 201-P | Insulating stud | No | MA122 809-122-000-02x |
| IK201/3 (PNR 112319) | Isokit IK201/3 for Accelerometer CA 20X | No | No |
| VMI 6051017 | Mounting adapter | No* | No |

In case of further question, please contact your nearest Parker Meggitt Sales office or distributor

Meggitt GmbH has been closed. The product portfolio from Meggitt GmbH has been integrated to Parker Meggitt with new labels

and certificate for Ex environments under Meggitt SA.

Discontinuation of the Meggitt GmbH products that are outside of Parker Meggitt strategical focus.

There are no functional form fit equivalent, although there are some vibro-meter products with similar functionalities



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Overview of Discontinued products with replacement

Discontinued



Replaced

Summary table

Vibrations switches CVS100 with accelerometer

Equivalent 2 relays versions

• CVS100-Axx-Bxx-C01-Dxx-Ex • CVS100-Axx-Bxx-C02-Dxx-Ex

Only A9 version with 1 relay (low cost version)

- CVS100-A09-B01-C01-D01-E1
- CVS100-A09-B01-C01-D01-E2

Vibration monitor VMS 830 - 1







VMS830-2

Can monitor 2 channels

Has steel housing with a LCD display, a

220 VAC or 24 VDC power supply

| Old PNR | New PNR | Functional | Form fit equivalent |
|--------------------------|-------------------------|--------------------|---------------------|
| | | equivalent | |
| | Vibration Switches | CVS100 | |
| CV\$100-A1-B01-C01-Dxx | CV\$100-A1-B01-C02-Dxx | Yes | Yes |
| CV\$100-A01-B02-C01-Dxx | CV\$100-A01-B02-C02-Dxx | Yes | Yes |
| CV\$100-A02-B01-C01-Dxx | CV\$100-A02-B01-C02-Dxx | Yes | Yes |
| CV\$100-A02-B02-C01-Dxx | CV\$100-A02-B02-C02-Dxx | Yes | Yes |
| | | | |
| Vibration Monitor VMS830 | | | |
| VMS830 | VMS830-2-B4-C023- | Yes* | Yes |
| Ax-Bx-Cx-Dx-Ex-Fx-Gx-Hx- | D03-E1000-G04-Y2 | 24 VDC or 220 VAC, | |
| Ix-Yx | D03-L1000-G04-12 | no more BNC* | |



Enabling Engineering Breakthroughs that Lead to a Better Tomorrow

Overview of Discontinued products with replacement

Discontinued

Replaced

Summary table

Velocity sensor CV211: The high temperature and low

frequency versions are discontinued.

Functional equivalent:

- CV213
 (for ATEX and high temperature)
- VE210 (for low frequency)
 Cable lengths of 5m or 10 m are available.

EC cable _____

Functional, form, fit, equivalent EC318 and EC319.

Connectors

MS3106, MS3108,

No replacement

Note: The correct extension cable must be purchased.

| Velocity sensor CV211 | | | |
|--------------------------------|--|-----------------------|---------------------|
| Old PNR | New PNR | Functional equivalent | Form fit equivalent |
| CV211-AHT-Bx-Cx-Exxx- Fx-Gx | 110-213-000-01x | Yes | No |
| CV211-ALF-Bx-Cx-Exxx-Fx- Gx | 410-210-000-01x | Yes | No |
| | EC Cable assembly | and connectors | |
| EC-Cx-Exxx-Fx-Gxxx | 922-318-000-00x 922-318-000-40x 922-319-000-00x 922-319-000-10x | Yes | Yes |
| MS3106 | 922-318-000-00x | Yes | No |
| MS3108 | 922-318-000-00x | Yes | No |
| 140000/ | FC AF110 LIT C F | V | k1= |

CV211

- Typical 23 mV/mm/s
 (2 mm pp)
- -55 to 105 °C
- 10 to 1000 Hz (standard)
- 10 to 1000 Hz (with external linearisation)

SIL 1 CAPABLE





Overview of Meggitt GmbH Transmitter products

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Transmitters 4-20 mA summary

Discontinue under Meggitt branding and available from Sens-Tec GmbH or Meggitt France:

- Pulse detection and speed measurement transmitter
 - TIW101 and TIW201
 - TIW202
- Displacement measurement transmitter
 - TWW101 and TWW201
- Vibration measurement transmitter
 - TSW101 M1
 - TSW201

Keep as Meggitt SA product:

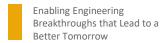
- Displacement measurement transmitter
 - TWW103 M1 (OEM version)
 - TWW251 (rod drop)
- Velocity measurement transmitter
 - TSG201
 - TSG202
- Velocity/Displacement measurement transmitter
 - TSG201-2R
- Transmitter for phase position and differential speed
 - TSM201 (OEM version)







Overview of Discontinued products with replacement



Discontinued

Replaced

Transmitters 4-20 mA

TSA202, TSG101 M1, TSG102 M1 Functional equivalents - TSG201, TSG202 or VibroSmart VSV301 / VSB300 modules

TSG201-2

Form fit equivalent TSG201-2R transmitter

TSW211 SMAX

Functional equivalent VibroSmart VSV301/VSB300 module with 2x TQ902/IQS900

TSW / TWW
and TIW version 001 with SMC
connectors

The standard version with triaxial connector

TWW101 M1 and TWW212

Functional equivalent TWW201, IQS910 or VibroSmart VSV301/VSB300 modules

Summary table

| Transmitters TAS, TSG, TSW, TWW and TIW | | | |
|---|------------------------|------------------|---------------------|
| Old PNR | New PNR | Functional | Form fit equivalent |
| | | equivalent | |
| | Transmitters TAS, TSG, | TSW, TWW and TIW | · |
| TSA202 | VSMARTSYS-001 | Yes | No |
| TSG101 M1 | TSG201 | Yes | No |
| TSG 102 M1 | TSG202 | Yes | No |
| TSG201-1 | TSG201 | Yes | Yes |
| TSG201-2 | TSG201-2R | Yes | Yes |
| TSW101-001 M1 | TSW101 M1 | Yes | Yes (except |
| | | | connector) |
| TSW201-001 | TSW201 | Yes | Yes (except |
| | | | connector) |
| TSW211 Smax | VSMARTSYS-001 | Yes | No |
| TWW101 M1 | TWW201 | Yes | No |
| TWW101-001 M1 | TWW201 | Yes | No |
| TWW201-001 | TWW201 | Yes | Yes (except |
| | | | connector) |
| TSW212 | VSMARTSYS-001 or | Yes | No |
| | 204-910-000-01x | | |



Overview of Discontinued products with replacement

Discontinued

Replaced

Summary table

Proximity sensors WW:

WW007 and WW009

 with BMC or triaxial connectors.

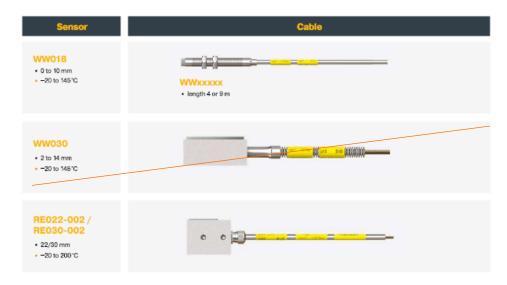
Functional equivalent TQ902 with an IQS900 signal conditioner

| Proximity sensors WW | | | |
|----------------------|-----------------|-----------------------|---------------------|
| Old PNR | New PNR | Functional equivalent | Form fit equivalent |
| WW007-001 | 111-902-000-011 | Yes | No |
| WW009-001 | 111-902-000-011 | Yes | No |
| WWV-001 | 913-902-000-011 | Yes | No |
| WW030 | 111-403-000-01x | Yes | No |





PROXIMITY PROBES







- · Measurement range
- Operating temperature

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Meggitt GmbH products kept in our portfolio



TWW103 M1

Transmitter 1 channel position transmitter 4 to 20 mA, max. load 500 Ohm, 0 to +85 °C

Power supply 24VDC (18 – 30 V), max. 80 mA

PVC DIN-Rail housing, IP40, 114,5 x 99 x 22,5 mm Spring terminals

WW018

Proximity transducer OEM version, 10 mm range, diameter tip 22mm, Ex certified, sensor head IP67 with 5 m or 10 m integral cable with protection



OEM version

WW017-RE103

WW017 Proximity transducer and RE103

Transmitter Kit

OEM version

Probe WW017-A1-B1-C200-E050-F1-G048-H05

-20 to +145°C, 6 mm range, tip 22mm, 5m integral

cable with protection, IP67

Original OEM part.



Transmitter RE103
0 to +85 °C, 1 channel,2x 4 to 20 mA and 1x 0.5...
+4.5 VDC output
Power supply +24VDC
Alu housing, IP67, 120 x 122 x 81 mm



Overview of Discontinued products with replacement

Discontinued

Replaced

Summary table

Displacement systems

- The old series U15, U22,
 U40(obsolete) with the DT-350-I M1 transmitter
- RE102 transmitter
- The high temperature AE119-050-R-HT inductive expansion probe and CFA110 conditioner are discontinued.
- The 100 mm range inductive expansion probe AE119-100-SK-S is discontinued.

- Functional equivalent RE-002 proximity transducer (RE022 and RE030 sensors) with the RE101 transmitter.
- Form fit equivalent RE101-002 transmitter
- Only the standard inductive expansion probe AE119-050-SK remains available
- Replaced by the Meggitt SA product, 800-219-000-11X

| Displacement systems | | | |
|------------------------------|------------------------|-----------------------|---------------------|
| Old PNR | New PNR | Functional equivalent | Form fit equivalent |
| U15 and DT350-I | RE-002 and RE101-002 | Yes | No |
| U22 and DT350-I | RE-002 and RE101-002 | Yes | No |
| U40 and DT350-I | RE-002 ! and RE101-002 | Yes (until 30 mm) | No |
| WW030 | 111-403-000-01x | Yes | No |
| RE102 | RE101-002 | Yes | No |
| AE119-100-SK-S | 800-219-000-11X | Yes | Yes |
| AE119-050-R-HT and CFA110 | 800-219-000-11X | No (up to 70° only) | Yes |



Enabling Engineering Breakthroughs that Lead to a Better Tomorrow

Overview of Discontinued products with replacement

Expansion Probe AE119 was available in 2 versions, Parker Meggitt and Meggitt GmbH. AE119 replaced by AE219 using LVDT instead of inductive (eddy-current principle) measurement. Last parts shipped before end of year and then switch to new version.

Discontinued



AE119

Parker Meggitt

• 800-119-000-025

Meggitt GmbH

- AE119-A050-B1
- AE119-050-R-HT
- VMD-AE119-050-SK-S
- VMD-AE119-050-R-HT
- VMD-AE119-100-R-HT
- VMD-AE119-100-SK-S

Replaced

AE219

- 800-219-000-011 (50 mm)
- 800-219-000-111 (100 mm)



EC cable

EC-AE119-HT-Cx-Exxx-Gxxx

Functional, form, fit, equivalent EC318 and EC319.





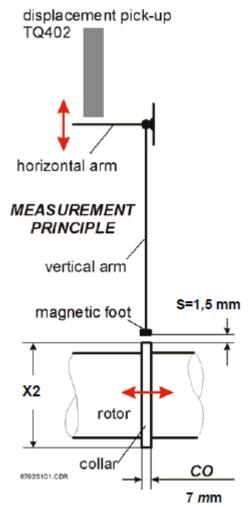
Pendulum Probe integrated into Meggitt SA portfolio

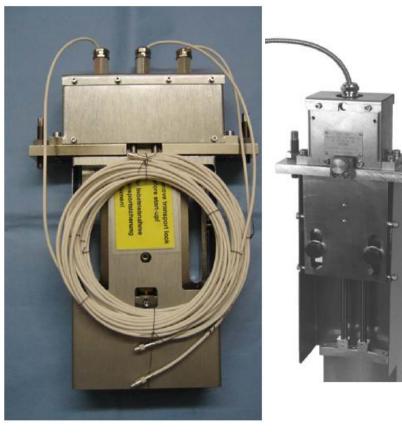
DP243 Vibro-meter pendulum probe

Measurement of axial shaft dynamic displacement using a eddy-current proximity probe (TQ402/902).

It allows measurements with huge measuring ranges in unfavorable environmental conditions and at measuring collars where it is not possible to realize direct measurements with eddy- current sensors, due to the mechanical conditions.

- 100 mm range possible
- Temperature up to +200°C
- Version with 1 channel
- Version with 3 channels (redundant measurement)







IQS910 PROXIMITY MEASUREMENT SYSTEM

Designed for operation with vibro-meter TQ proximity sensors, that is, non-contact proximity sensors / measurement chains based on the eddy-current principle.

Replacement for WW007 or WW009 + TSW or TWW from Meggitt GmbH.

Note: The IQS910 is compatible with different TQ9xx (and TQ4xx sensors) and is intended as a complement to the IQS900, for applications where a simple position or vibration "transmitter" is required.

Features

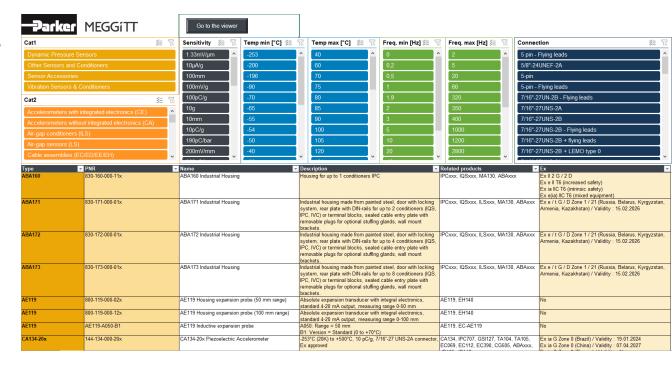
- Signal conditioning for TQ proximity sensors.
- Position (gap) or vibration (shaft relative) measurement for machinery protection and/or basic condition monitoring.
- Wide frequency range (DC to 15000 Hz), with configurable measurement type (position or vibration), sensitivity and measurement range.
- Position measurement or vibration measurement with "peak-meter" vibration processing.
- Industry-standard 4 to 20 mA current-loop output for easy interfacing with machinery monitoring and/or process control systems.
- Certified for use in potentially explosive atmospheres (hazardous areas).
- Suitable for use in functional safety contexts: SIL 2 in accordance with IEC 61508 and Cat 1 PL c in accordance with ISO 13849.
- "Raw" output and "Test" input signals for in-situ test support.



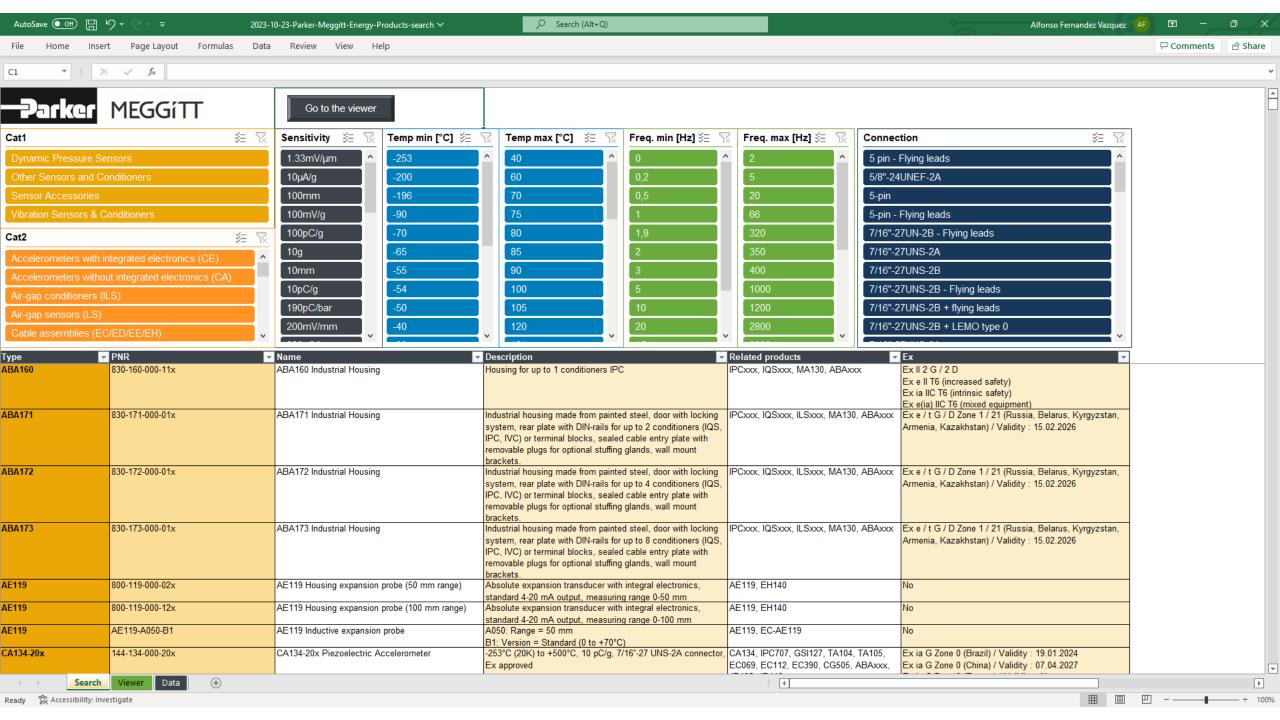


SENSORS AND CONDITIONERS EXCEL TOOL

- Created to simplify your product decision-making process
- Includes relevant information and filtering options to help you select the right product for specific applications.
- You can download the Excel-based tool from the Energy website's login area - <u>Tools and utilities</u>







THANK YOU