



QPS Evaluation Services Inc



- (1) **EU-Type Examination Certificate**
- (2) **Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014**
- (3) EU-Type Examination Certificate Number: QPS 24ATEX5001X Issue Number: 1
- (4) Product: RTD and Thermocouples assembly, Model MP360EHZ
- (5) Manufacturer: Daily Thermetrics Corporation
- (6) Address: 9600 W Gulf Bank Rd,
Houston, TX
77040. USA
- (7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) QPS Evaluation Services Inc. 81 Kelfield St., Units 7-9, Toronto, ON M9W 5A3, Canada, Notified Body Number 2900, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential test report number **ATX1427-2**
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0 : 2018 EN IEC 60079- 7:2015+A1:2018**
- except in respect of those requirements listed at item 18 of the Schedule.
- (10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- (11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive 2014/34/EU article 13 apply to the manufacturing process and supply of this product. These are separately certified and not covered by this certificate.
- (12) The marking of the product shall include the following:



II 2G Ex eb IIC T6/T5/T4 Gb
Ta = - 20 °C to + 60/75/80 °C

Date of certification: Aug. 12, 2024

Rob Kohuch
Certification Manager
QPS Evaluation Services Inc.



EU-Type Examination Certificate without signature shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by QPS Evaluation Service Inc. The SCC Accreditation Symbol is an official symbol of the accreditation body and notifying authority, used under license.

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(13) **SCHEDULE**(14) **to EU-Type Examination Certificate QPS 24 ATEX 5001X**

Issue No. 1

(15) General product information:

RTD's and Thermocouples Assembly model MP360EHZ consists of parts and components as follow:

- Base TC or RTD Probe, manufactured by Daily Thermetrics Corp., Model 220HZ or CT221HZ, Ex eb IIC Gb, Umax = 42.4 V dc
- STAHL 8150/1-***_***_***-3321-*** refers to size of enclosure.
ATEX: II 2 G Ex db eb ia mb op pr IIA, MB, MC T6, T5, T4, T3 Gb
- Terminal blocks
Phoenix contact type MKTD TC type terminals pairs, Ex eb IIC,
- Cable glands of manufactures and models as follow: OSCG/EXBF-A, Ex db/Ex eb/Ex tb

While thermocouples and RTDs are passive sensors that do not generate heat, they may transfer heat rom process-wetted areas. Rated components such as the epoxy seal or insulation must remain below maximum allowable temperatures.

Proper lagging extension is determined by using maximum operating conditions, shown in Table 4, 5 and 6 of DTC-IOM-MP360EHZ-HAZLO. The user may verify proper lagging extension via temperature measurement after installation, while no hazardous gas is present.

(16) **Report Number:** ATEX1427-2, ATEX1427-2R1(17) **Specific conditions of use:**

- Grounded junctions are not capable of withstanding the 500 V rms between the measurement circuit and ground. This must be taken into account during installation.
- The assembly is tagged with design pressure and temperature. These values shall not be exceeded. Specifically, during normal operation, the maximum operating temperatures of any component of the sensor assembly must not exceed the designed temperature indicated on the product. The probe must not be exposed to a pressure higher than indicated on the product.
- For ambient conditions over 70 °C and up to 80 °C, a cable with thermostability of its insulation of minimum 80 °C / 90 °C shall be used. Special attention shall be given to the source of heating the equipment is intended to be attached to, because it can contribute to elevate the local ambient temperature for the cable. The end user shall read and follow the User Manual where this concern is given them to attention.
- Metal sheath containing thermocouple and/or RTD wires and flexible metal conduit containing extension/lead wires must be protected against impact in final assembly.

(18) **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

(20) **Certificate history**

Issue 0 - May 14, 2024

Issue 1 - Aug. 12, 2024

- Update the IOM with new applicant address.
- Update the applicant address in the certificate and Marking labels.

(13) **SCHEDULE**(14) **to EU-Type Examination Certificate QPS 24 ATEX 5001X**

Issue No. 1

Annex 1

ANNEX 1, Date: 2024-8-12

Certificate No.: QPS 24ATEX5001X Issue No.: 1

Applicant: **Daily Thermetrics Corporation**
9800 W Gulf Bank Rd,
Houston, TX
77040. USA

Electrical Apparatus: **RTD's and Thermocouples Assembly model MP360EHZ**

While thermocouples and RTDs are passive sensors that do not generate heat, they may transfer heat from process-wetted areas. Rated materials and components such as the epoxy seal or insulation, gaskets cable glands terminal blocks must remain below maximum allowable temperatures. Proper lagging extension is determined by using maximum operating conditions, shown in Table 4, Table 5 and Table 6 of DTC-IOM-MP360EHZ-HAZLOC. The user may verify proper lagging extension via temperature measurement after installation, while no hazardous gas is not present.

Epoxy End Seal Model and Manufacturer	Continuous Operating Temperature (COT)	Service Temperature Range	Minimum Distance from Process Temp (Tp) -40 °F < Tp < 572 °F -40 °C < Tp < 300 °C	Minimum Distance from Process Temp (Tp) -273 °F < Tp < -40 °F or 572 °F < Tp < 2100 °F, -189 °C < Tp < -40 °C or 300 °C < Tp < -1149 °C
2651-40FR with Catalyst 9 by STYCAST	-40 °C to +150 °C	-40 °C to +110 °C	3.0 inch [76.2 mm]	10.0 inch [254.0 mm]
EP1340 by RESINLAB	-40 °C to +150 °C	-40 °C to +130 °C	3.0 inch [76.2 mm]	10.0 inch [254.0 mm]
EP1330 by RESINLAB	-40 °C to +150 °C	-40 °C to +130 °C	3.0 inch [76.2 mm]	10.0 inch [254.0 mm]
Duralco 4703 by CONTRONICS Corp.	-40 °C to +343 °C	-40 °C to +130 °C	3.0 inch [76.2 mm]	10.0 inch [254.0 mm]

Table 4 - Temperature Ratings for Epoxy End Seals

Size	Insulation Thickness	Extension/Lead Wire		Services Temperature Range
		Insulation Material	COT	
16-24 AWG	0.20 mm	Teflon	-200 °C to +200 °C	-40 °C to +130 °C

Table 5 - Temperature Ratings for Non-Metallic Components

Model and Manufacturer.	Continuous Operating Temperature (COT)	Service Temperature Range
OS-EXBF-A	-80 °C to +110 °C	-40 °C to +110 °C
Stahl 8150	-80 °C to +135 °C	-40 °C to +135 °C
Phoenix Contact Type MTKD	-50 °C to +110 °C	-40 °C to +110 °C
Phoenix Contact Type UT 2.5	-80 °C to +110 °C	-40 °C to +110 °C
Weidmuller WDU 2.5 TC TYPE	-80 °C to +110 °C	-40 °C to +110 °C

Table 6 - Temperature ratings for Cable glands, Enclosure and Terminals Blocks

Tcode	Tambient	Trise + Tambient	°C Transferred from Process
T8	-40 °C to +80 °C	85 °C	< 20 °C
T5	-40 °C to +75 °C	80 °C	< 20 °C
T4	-40 °C to +80 °C	85 °C	< 50 °C

Table 7 - Relationship between T-Code and Ambient Temperature & Temperature transferred from the process by the conduction.