

TYPE EXAMINATION CERTIFICATE

Product or Protective Systems Intended for Use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended)

1. **Type Examination Certificate Number:** ITS21UKEX0213X
2. **Product:** Signal Conditioner (5580, SW5580)
3. **Manufacturer:** Metrix Instruments Co. LP
4. **Address:** 8824 Fallbrook Drive
Houston, TX 77064-4855
USA
5. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
6. Intertek Testing and Certification Limited, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the products intended for use in potentially explosive atmospheres given in Schedule 1 of UKSI 2016:1107 (as amended).

The examination and test results are recorded in the confidential report 104621114DAL-002.

7. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018, EN 60079-7:2015+A1:2018 and EN 60079-15:2019 except in respect of those requirements referred to within item 14 of the Schedule
8. If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.
9. This Type Examination Certificate relates only to the design of the specified product and not to specific items subsequently manufactured.
10. The marking of the product shall include the following:



II 3 G Ex ec nC IIC T4 Gc

5580 model: $-40^{\circ}\text{C} \leq \text{Ta} \leq +85^{\circ}\text{C}$

SW5580 model: $-40^{\circ}\text{C} \leq \text{Ta} \leq +65^{\circ}\text{C}$

Certification Officer: 
Todd L. Relyea

Date: 26 July 2021

METRIX DOC NO: 1915574
REV: A

SCHEDULE:

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11. Description of Equipment or Protective System

The products covered by this report are DIN rail mounted smart vibration signal conditioners and switch (SW5580 model only) from Metrix. The SW5580 is similar to 5580, but each channel comes with two relays either dry contacts or solid state relay contacts that can be configured for alarm level and time delay.

They have been designed to accept signals from machine casing mounted velocity sensors, accelerometers or shaft observing proximity probe systems and produce a 4-20 mA output proportional to the measured variable and an amplified raw signal. It provides the user with a configurable signal input type for one or two independent channels plus a configurable feature to scale output either to peak or RMS units. For each channel, a green LED indicates sensor and cable integrity. In the event of sensor failure, the LED changes to red and the output current is driven below 3.6 mA, thereby signaling a malfunction. A BNC connector gives access to the raw input signal for local analysis. A built-in 4-digit LCD display is used to display both dynamic input and 4-20 mA output signal. Isolation is provided between input, outputs and supply.

12. Report Number

Intertek Report: 104621114DAL-002 Dated: 07-07-2021.

13. Conditions of Certification

(a). Special Conditions of Use

- The maximum internal equipment surface temperature measured according test conducted per Clause 26.5.1 IEC/EN/UL/CSA 60079-0 Standard was 91.84°C (@ 65°C ambient) for SW5580 model and 111.84°C (@ 85°C ambient) for 5580 model. End user must verify that the enclosure in which this equipment is installed is suitably rated for service per these temperatures.
- Equipment shall be installed in an Ex certified enclosure that is tool secured which provides a minimum ingress protection of IP54. The equipment must be mounted on a vertical or horizontal rail within the enclosure.
- Coaxial connections provided for the access to the input signal reference circuit ground. Care shall be taken whilst installing the equipment to ensure a dielectric isolation of 500Vrms is maintained.
- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
- Transient protection shall be provided on the supply to limit transients not to exceed 33.6VDC.

(b). Conditions of Manufacture - Routine Tests

- None

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14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) affected by this variation have been identified and assessed in Intertek Report: 104621114DAL-002 Dated: 07-07-2021.

15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
PARTS LIST, ANALOG PCB, 5580, SIGNAL CONDITIONER, AGENCY	100995-AGENCY	B	05/11/2021
PARTS LIST, DIGITAL PCB, 5580, SIGNAL CONDITIONER, RoHS, AGENCY	100998-AGENCY	A	10/26/2020
PARTS LIST, ASSY, INTERCONNECT PCB, 5580, SIGNAL CONDITIONER, RoHS, AGENCY	101050-AGENCY	B	05/11/2021
PARTS LIST, ASSY, INTERCONNECT PCB, SW5580, SOLID STATE SWITCHES, RoHS, AGENCY	101051-AGENCY	B	05/11/2021
PARTS LIST, INTERCONNECT PCB, SW5580, ELECTROMECHANICAL RELAYS, SWITCH, AGENCY	101004-AGENCY	B	05/11/2021
PARTS LIST, FRONT PCB, 5580, SIGNAL CONDITIONER, AGENCY	101001-AGENCY	B	05/11/2021
Analog BOARD-AGENCY	100993-AGENCY	B	05/11/2021
SCH, DIGITAL PCB, 5580, SIGNAL CONDITIONER, RoHS, AGENCY	100996-AGENCY	A	07/23/2020
INTERCONNECT BOARD, AGENCY	101002-AGENCY	B	05/11/2021
Front Panel-AGENCY	100999-AGENCY	B	05/11/2021
5580 Smart Vibration Signal Conditioner & SW5580 Dual Channel Configurable Switch Datasheet	1899675	B	June 2021
Installation Manual	1874512	B	June 2021
SIDE LABEL, AGENCY APPROVALS, SIGNAL CONDITIONER, 5580 & SMART SWITCH, SW5580, AGENCY	101031-XXX-AGENCY	B	06/08/2021

*Note: An * is included before the title of documents that are new or revised.*

16. Details of Certificate changes

N/A

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