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| Technical Information | Date: 18.09.2020 Official: Marier Department: BT-FIR/MKP3 |
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| Tech. Information No. | 2307 / 2020 |
| Subject: | Potential Safety Risk regarding Talentum IR3 Flame Detectors |

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| Short Description: | Potential risk that IR sensor operates outside of the intended design requirements |
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|---|--|---|-----------------------------------|
| Hardware <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Device | <input type="checkbox"/> Module | <input type="checkbox"/> PCBA |
| Software <input type="checkbox"/> | <input type="checkbox"/> Application | <input type="checkbox"/> Driver / Extension | <input type="checkbox"/> Firmware |

| Affected Products (details) | CTN | SAP no. | Aff. version | New version |
|-------------------------------------|--------|---------------|--------------|-------------|
| Flame detector, IR3 | 016589 | F.01U.279.762 | | |
| Flame detector flameproof Ex d, IR3 | 016519 | F.01U.279.764 | | |
| Test unit for IR3 flame detector | 016091 | F.01U.279.881 | | |

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| Number of delivered devices | | |
| Period of delivery | from: | to: |
| Affected serial numbers | from: | to: |

| Priority Level | Criterion |
|--|--|
| I <input type="checkbox"/> | The change has to be made immediately (see dates below) |
| II <input checked="" type="checkbox"/> | The change has to be made during the next inspection the latest. |
| III <input type="checkbox"/> | Change has to be made, if the error pattern recurs and with new installations. |
| None <input type="checkbox"/> | General Information (like new tool, new feature, new SW release) |

| Action Plan | |
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| <input type="checkbox"/> | Inform customers |
| <input type="checkbox"/> | Arrange re-work of stock (CSO) |
| <input type="checkbox"/> | Arrange re-work of stock (customer) |
| <input type="checkbox"/> | Arrange re-work of installed products |
| <input checked="" type="checkbox"/> | See detailed actions on following pages |

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|-------------------|--|------------------------|--|
| Start Date | | Completion Date | |
|-------------------|--|------------------------|--|

Summary:

We would like to inform you about a potential safety risk concerning Talentum IR3 Flame Detectors which was brought to our attention by the product manufacturer. Based on the information currently available to us, the product manufacturer cannot exclude the possibility that an affected Talentum IR 3 Flame Detector may not work as intended in the event of a fire.

We were informed by the product manufacturer that internal investigations revealed a small number of cases where the IR sensor operates outside of the intended design requirements. In these cases the issue is not detected by the Talentum Test Torch (Flame Sensor Test Unit), unless you are using a retrofit version of such test torch as further described below.

How to identify or confirm:

All potentially affected models should be tested with a live flame or a retrofit test torch solution, where it is safe to do so. Where it is not safe to test a device with a live flame or a retrofit test torch solution in the relevant location (e.g. EX areas), we recommend you to remove the potentially affected device where appropriate and to undertake a live flame test or a test with the retrofit test torch in a safe environment.

The risk calculated by the product manufacturer has been described to us as either in the broadly acceptable or in the tolerable region according to the HSE risk assessment. Based on this information the testing of the affected devices is recommended to conduct in the next maintenance cycle at customer site the latest. As we cannot assess the extent of the risk for each individual site, the final risk assessment and the final testing regime has to be defined by each customer.

To test the device in a safe environment please set it up with the manufacturers recommended voltage. It does not have to be connected to the fire panel for testing. After connecting the device to power, please conduct the live flame test or the test with the retrofit test torch as described below.

The device works in the specified way if the red LED flashes constantly.

For a live flame test you can use one of the following options

- a. Standard pan-fire test, using a 0.1m² n-heptane fire at 25m from the detector, as per EN54 Part 10.
- b. A camping stove with a flame that's approx. 15cm high by 1.5cm wide at ~ 2.4m from the detector (6" x 5/8" flame at ~ 8 ft).
- c. A Zippo-style cigarette lighter with a flame that's approximately 4cm high by 1cm wide at ~ 70cm from the detector (1.5" x 0.5" flame at ~ 2¼ ft), waved to provoke flicker.

For an example of a live flame test, please find the instructional video as follows:

Live Flame Test Demo (Camping Stove) - <https://youtu.be/BqdUUV0tonk>

Live Flame Test Demo (Zippo Lighter) - <https://youtu.be/d0SpRPhmD4>

Questions - <https://youtu.be/ZSQJiwXwE4s>

The retrofit test torch solution is a modification to the existing test torch, which optimizes the output of the test torch for testing the IR3 flame detectors. The test unit does not have an (EX) approval, so it cannot be used in hazardous areas. For safe environments it is an alternative to the live flame test.

The instruction on how to mount the adaptor and conduct the tests will be provided with the adaptor.

The retrofit test torch adapter can be ordered under the following e-mail address starting at September 28th: tobias.winter2@de.bosch.com

What is being done or recommended to address:

If the flame detector does not detect the live flame, it should be returned and will be exchanged with a new one.

Please be aware that all returned devices have to be tested before and have to be documented not to work. Otherwise an exchange is not possible. Please also take into account that the exchange of the flame detector will currently take ~4 weeks.

When will the issue be resolved:

Print out of this template is not subject of the updating service. Only the version in the Intranet is always up to date.

According to the product manufacturer corrective actions have been put in place. After implementing the defined actions a shipment of new products is envisaged for the 3rd week of September.

The CAR #200145 [BU_FIR] is dealing with this issue.

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| BU Manager | Knauel | Clerk in Charge: | Marier |
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