

Product Advisory: A141

Product: Xgard Type 1 & Type 2 Oxygen

Issue: Oxygen Under-Read <11 V dc

Date: 24th November 2022



Xgard Type 1 and Type 2 detectors are specified with an operating voltage specification of 8 – 30 V dc.

However, it has recently been identified that if the operating voltage of an Oxygen Xgard Type 1 or Type 2 detector falls below 11 V dc the device could under-read the true Oxygen level.

The voltage available at the detector may be significantly lower than is supplied from the control panel due to voltage drops through the control panel sense resistor, cable resistance (exacerbated by long cable runs) and connection to detectors in hazardous areas via Zener barriers.

It is essential therefore that where Xgard Type 1 & 2 Detectors are being used in Oxygen applications the supply voltage is checked at the Detector to confirm it is 11 V dc minimum under all operating conditions over the full 4-20 mA signal range.

If the supply voltage falls below 11 V dc the indicated Oxygen level is likely to be lower than actual, which may result in the control panel alarming as the measured Oxygen level falls below the configured alarm levels, and in enriching environments the Detector may not report the full range of the increasing oxygen correctly.

If no falling alarms are set this effect could go unnoticed. Crowcon always recommend setting falling oxygen alarms to warn of oxygen depletion hazards. Systems supplied by Crowcon are configured with falling oxygen alarms at 19.5% and 17% as default.

Future deliveries of Xgard Types 1 & 2 will include an addendum to the manual clarifying this requirement when used in Oxygen applications.

Please contact TechnicalSupport@crowcon.com if you require any further clarification or support on this matter.