

XgardIQ

Collector Cone



Collector Cone assembly and installation instructions **Accessory Product Code: S012340**

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1 Introduction

The Collector Cone accessory attaches to the XgardIQ or XgardIQ remote sensor housing to aid detection of lighter than air gases such as hydrogen or methane.

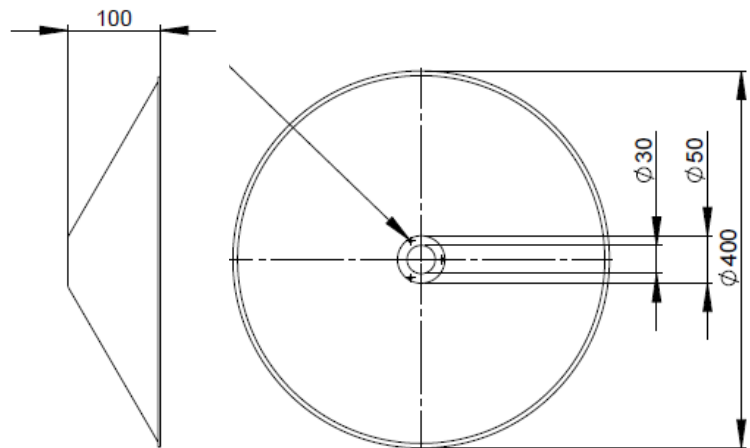
A pipe spigot is provided to enable a pipe to be permanently attached for remote application of test gas. Nylon pipe is recommended; 6mm external diameter, 4mm internal diameter (ie 1mm wall thickness).

2 Assembly

The mounting collar must be attached to the cone as shown below prior to installation. Secure the mounting cone using the three screws provided.



Collector Cone Assembly



Dimensions

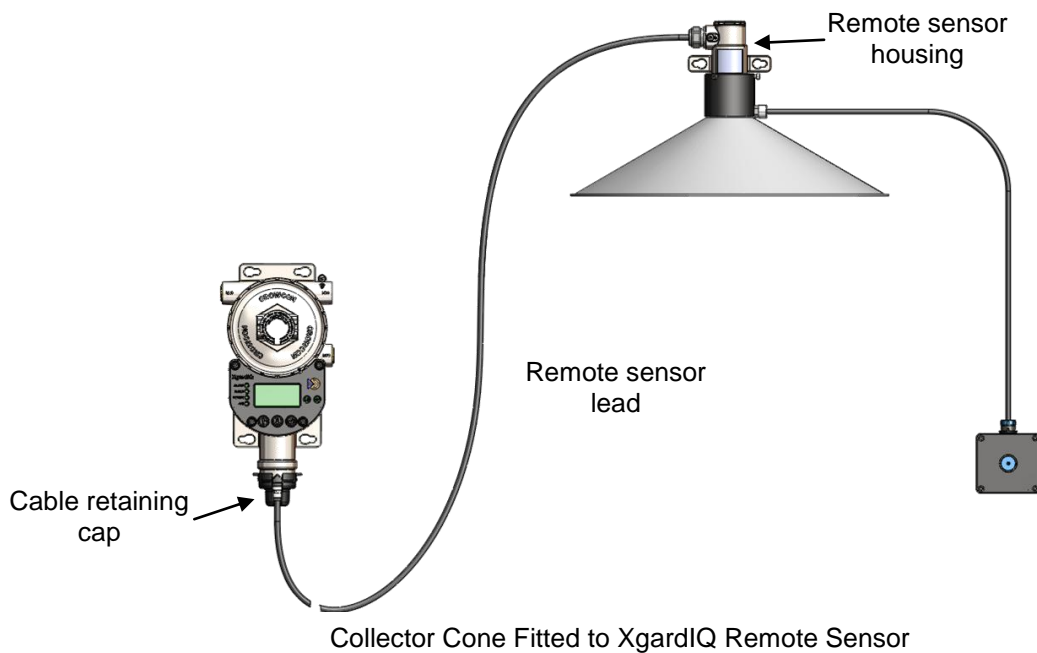
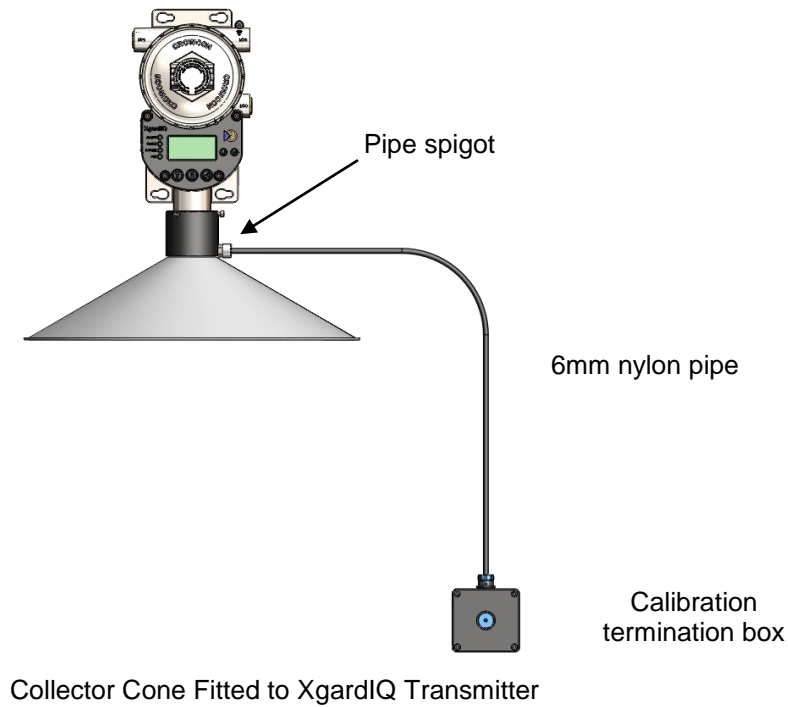
3 Installation

The Collector Cone can be fitted either to the XgardIQ or to the XgardIQ remote sensor accessory. Simply align the slots on the mounting collar push upwards and rotate clockwise as far as the collar will travel. Secure the collar using the three grub-screws by tightening each in-turn gradually so as not to distort the collar.

Collector Cones are normally installed on detectors mounted high above processes that may emit methane or hydrogen. To simplify routine sensor checking and calibration, it is recommended that a nylon pipe is attached to the pipe spigot and permanently installed to a convenient and accessible position. Test gas can then be applied to the pipe to enable verification of the sensor response without having to directly access the XgardIQ or remote sensor. Maximum pipe length: 15 metres; suggested installation shown below.

A “Calibration termination box” (product code 00109A) is available for neatly terminating the pipe.

Note: the Collector Cone is circular with a diameter greater than the depth and width of the XgardIQ transmitter. The transmitter or remote sensor housing cannot therefore be mounted to a wall if a Collector Cone is to be fitted. Instead a suitable bracket must be fabricated to enable support from a suitable point above the area to be monitored.



Note: suggested installation: 6mm nylon pipe and calibration termination box are available separately.

4 Routine maintenance

WARNING: static hazard: If cleaning is required, the Collector Cone must only be wiped with a damp cloth.

The following sections detail requirements for testing and calibrating sensor remotely. Note that sensor response will take longer than if the test gas is directly applied to the sensor; guideline times are shown in each section below.

If the bump test functions of XgardIQ are to be used, the 'Gas Sense' time will need to be reset from the default 30 seconds to 60 seconds, and the 'Bump Test' time will need to be reset from the default 60 seconds to 90 seconds. These can be adjusted via the XgardIQ display, or using Detectors-Pro software.

4.1 Methane sensor calibration

50%LEL (2.2% volume) methane (in air) test gas should be applied to the pipe at a flow-rate of 0.5 litres per minute. Follow the calibration or bump test procedure as described in the XgardIQ installation, operating and maintenance instructions. T90 response time to gas applied via a 15 metre pipe: 1 minute, 15 seconds typically. The sensor response will be typically 4%LEL lower than if the gas were applied directly to the sensor.

4.2 Hydrogen sensor calibration

50%LEL (2% volume) hydrogen (in air) test gas should be applied to the pipe at a flow-rate of 1.0 litre per minute. Follow the calibration or bump test procedure as described in the XgardIQ installation, operating and maintenance instructions. T90 response time to gas applied via a 15 metre pipe: 1 minute, 5 seconds typically. The sensor response will be typically 6%LEL lower than if the gas were applied directly to the sensor.



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