



**HALO LED Junction Box
with optional HART® Port**



Easy to use

- Clear device status provides enhanced safety
- Easier to locate a unit in fault/warning – reduces time for maintenance
- Allows convenient connection of an appropriately certified HART[®] handheld device
- No hot work permit required to connect handheld device

Local display

- LED light ring indicates status at a glance: -
 - Green – Normal
 - Red – Alarm
 - Yellow – Fault/Inhibit
- Simple configuration of alarm point and LED brightness

Suitable for wide range of applications

- Can be mounted in highly visible location
- Detector can be mounted remotely from HALO
- Backwards compatible with Searchpoint Optima Plus
- ATEX/IECEX hazardous area approval
- Ex e enclosure
- One M25 sensor entry, three M20 cable entries

Easy to Install

- Optional pipe mounting bracket
- Optional sunshade
- Optional retrofit adaptor plate

Status at a glance

The HALO Junction Box enhances the Searchpoint Optima Plus point infrared Hydrocarbon gas detector* by providing a local display showing the sensor status at a glance, even from a distance. It also gives convenient, non-intrusive interaction with a HART[®] handheld device through an optional intrinsically safe (IS) HART[®] connection point.

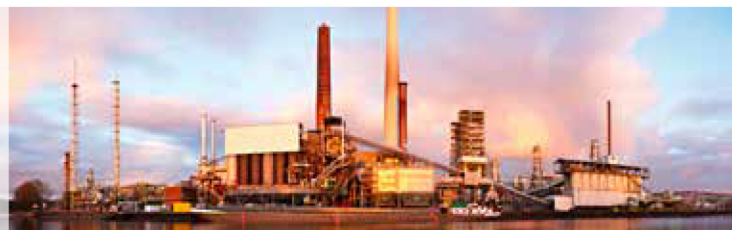
HALO uses three instantly recognisable 'traffic light' colours to indicate its status. The LED light ring shows green to indicate normal operation, yellow to indicate a fault/inhibit and flashes red to indicate an alarm. This allows anyone in the area to clearly and immediately see the status of any detector. This can be particularly useful to identify operational status if the detector is located in a difficult to access area or if a number of detectors are located in the same area.



Honeywell
Aalytics
Light
O Ring



HALO Overview



HALO is an ATEX/IECEX certified Ex e junction box for use with Searchpoint Optima Plus. It provides a local visual status indication, and an optional intrinsically safe non-intrusive HART® handheld device interface, for sensors that support HART® communication. It is suitable for use in either Zone 1 (gas) or Zone 21 (dust) hazardous areas.

HALO has three M20 cable entries and one M25 sensor entry. Internally, the box has a continuity plate with two earth connection points, and a 12-way terminal block.

The box lid has a three colour light ring (green, yellow and red), and optional connections for a HART® handheld device. The light ring provides a status indication (see below).

Searchpoint Optima Plus Output	Light Ring	Status
Less than 1.5 mA	Flashing Yellow	Fault
1.5 to 2.5 mA	Steady Yellow	Inhibit
2.5 to 3.5 mA	Flashing Green	Warning
3.5 mA to Alarm Threshold*	Steady Green**	Normal
Greater than Alarm Threshold*	Flashing Red	Hazardous Gas Concentration

*Configurable between 10 and 65 %FSD

**Configurable to Full Brightness, Half Brightness or Off



Flashing Red = Alarm
(level is configurable)

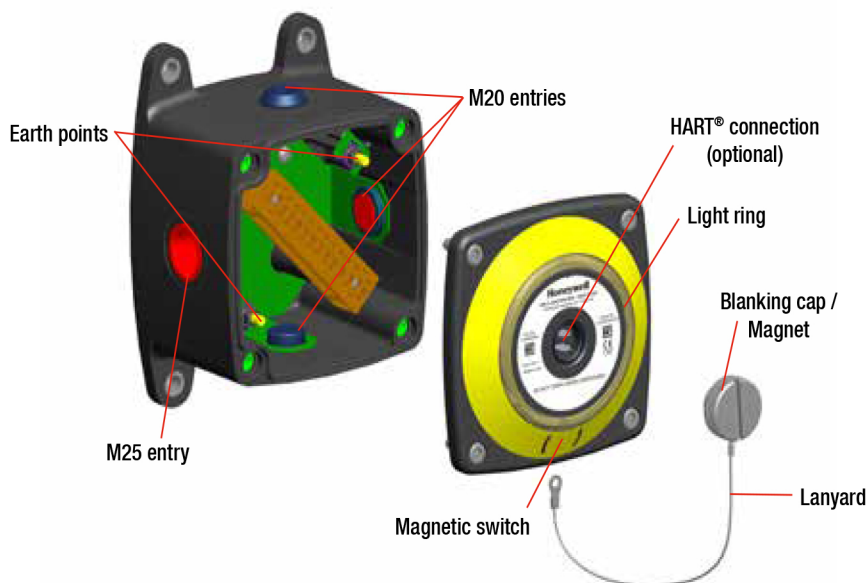
Steady Yellow = Inhibit
Flashing Yellow = Fault

Steady Green = Normal operation
Flashing Green = Warning



The box is configured using a magnetic switch. A magnet is incorporated into the blanking cap which screws into the middle of the box lid when not in use. The following parameters can be configured: -

- Threshold for local alarm indication (red lights) can be set between 10 % and 65 %FSD
- Brightness of green LED lights can be set to Full Power, Half Power or Off

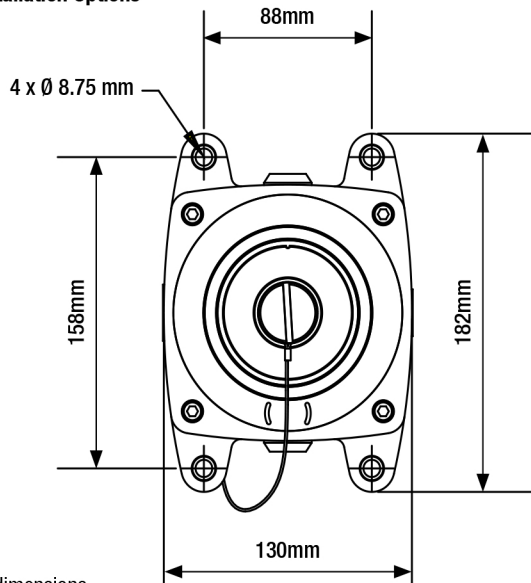


Installation Details

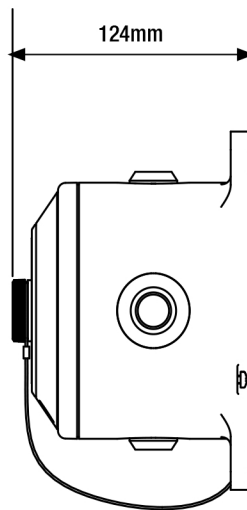


Mechanical

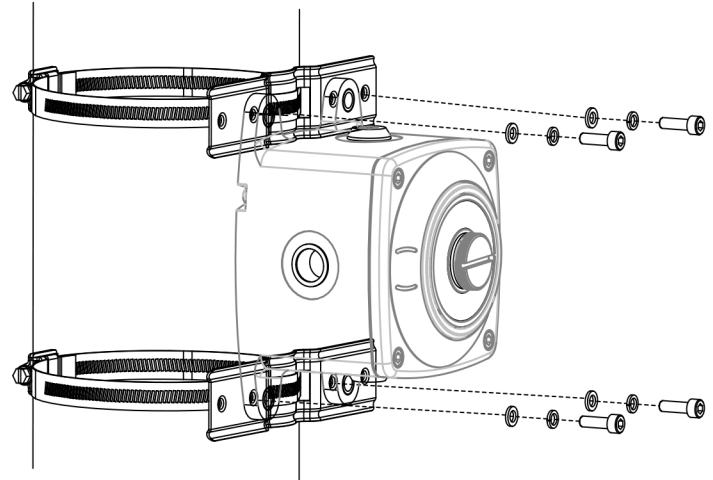
Installation Options



All dimensions
in mm.
25.4mm = 1 inch



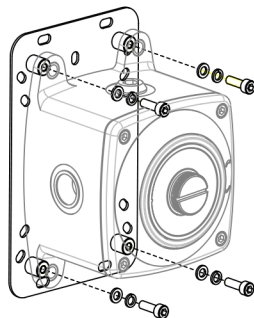
HALO can be mounted directly using the holes provided.



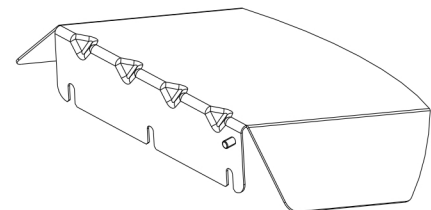
The optional Pipe Mounting Bracket is suitable for a horizontal or vertical pipe, diameter 50 to 150 mm (2 to 6 inches).

Unique new mounting bracket design: -

- Easier to install than traditional brackets
- Mounting straps hold to pole better than U-bolt style
- Exceeds vibration standard of EN 60079-29-1

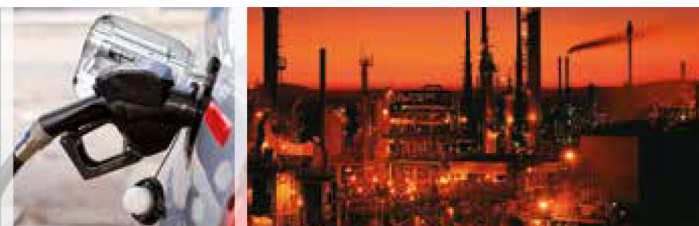


The optional Retrofit Adaptor Plate enables HALO to be conveniently mounted in place of an existing DVC100 or Honeywell Analytics Junction Box. The plate has mounting holes corresponding to the hole centres of the DVC100 series and the Honeywell Analytics Junction Box.

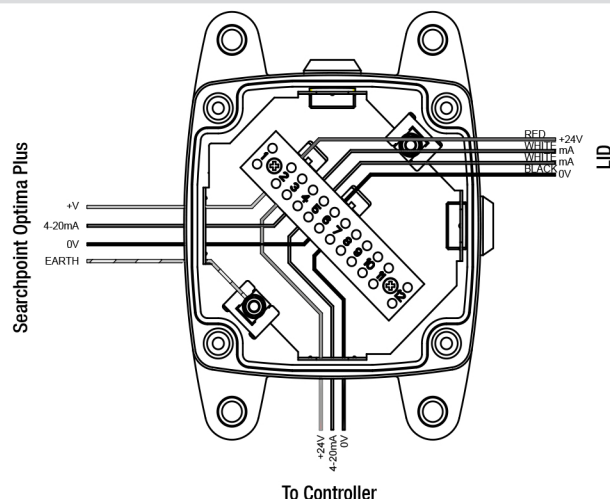


An optional sunshade is available which covers the HALO and extends over either side to also protect a sensor. The sunshade slots over the HALO mounting bolts so no additional fixings are required.

Installation, Technical Summary and Ordering Information



Electrical



Terminal Module Connections

Terminal Number	Description	Field Wiring	Searchpoint Optima Plus Wiring	Lid Wiring
1	spare			
2	+V supply		+24 V	+24 V (red)
3	+V supply	+24 V		
4	mA loop		mA output	mA (white)
5	mA loop	mA output		mA (white)
6	-V supply		0 V	0 V (black)
7	-V supply	0 V		
8	spare			
9	spare			
10	spare			
11	spare			
12	spare			
Earth			Earth	

Technical Summary HALO Junction Box

Use	HALO is an ATEX/IECEx certified Ex e junction box for use with Searchpoint Optima Plus sensors. It provides a local status display, and an optional non-intrusive HART® interface for sensors that support HART® communication. It is suitable for use in either Zone 1 (gas) or Zone 21 (dust) hazardous areas.
Features	
Display	LED light ring – Red, Green, Yellow LED indication
Alarm Range	10 to 65%FSD in 5% increments
Environmental	
Operating Temperature	-40 °C to 65 °C
Operating Pressure	80 to 120 kPa
Operating Humidity	0 to 99 %RH (non-condensing)
Electrical	
Supply Voltage	18 to 32 Vdc
Power Consumption	1 W maximum
Insertion Loss	~25 Ω
Mechanical	
Material	Glass filled polyester, static dissipative
Weight	1.7 kg
Ingress Protection	IP66/67
Certification	
ATEX / IECEx EMC	Baseefa 12ATEX0017 II 2 GD IECEx BAS 12.0011 Ex e ia mb IIC T5 Gb -40°C to +65°C Ex ia tb IIIC T100 °C Db EN 50270:2006
RoHS	HALO is RoHS compliant
Performance	EN 60079-29-1 Approved Accessory

Ordering Information

Instruments	Spares
2308B0903 HALO junction box ATEX/IECEx	2308B0970 Lid assembly – HALO ATEX/IECEx
2308B0941 HALO junction box Inmetro*	2308B0971 Lid assembly – HALO Inmetro*
2308B0947 HALO junction box GOST*	2308B0972 Lid assembly – HALO GOST*
2308B0953 HALO junction box CCCF*	2308B0973 Lid assembly – HALO CCCF*
2308B0900 HALO junction box with HART® connection ATEX/IECEx	2308B0974 Lid assembly – HALO with HART® connection ATEX/IECEx
2308B0940 HALO junction box with HART® connection Inmetro*	2308B0975 Lid assembly – HALO with HART® connection Inmetro*
2308B0946 HALO junction box with HART® connection GOST*	2308B0976 Lid assembly – HALO with HART® connection GOST*
2308B0952 HALO junction box with HART® connection CCCF*	2308B0977 Lid assembly – HALO with HART® connection CCCF*
Accessories	2308B0978 Blanking cap / magnet assembly including lanyard
2308B0934 HALO Sunshade	2308B0924 Terminal block spares assembly
2308B0930 Adaptor Plate Kit	2308B0969 Service spares kit
2308B0923 Pipe Mounting Bracket Kit	* Contact Honeywell Analytics for availability



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