

GAS DETECTION

ATEX Infrared detectors

The detector is equipped with an infrared detection system capable of distinguishing other types of gas, thus ensuring a perfect selectivity. It measures the concentration of the explosive gas on the LEL (Lower Explosive Limit) scale.

The detector is delivered with a pre-alarm threshold of 15% and an alarm threshold of 30% of the LEL.



Optionally, an interface with Android App and a PC software are available, which allow the field testing of the detector, and the modification of detection thresholds, alarm filters, addressing, full scale, etc.

The detector is equipped with an ATEX II 2G Ex-d IIC T6 Gb certified explosion-proof metal box, housing both the communication electronics and the sensor element, and protected by a sintered filter in a resin-coated steel box.

The detector is supplied together with one of the following communication modules which must be selected at order.

STANDARD COMMUNICATION MODULES:

- Analog output module at 4-20 mA, both active and passive, and in positive or negative. Typical connection for PLC applications. Possibility to calibrate the full-scale values of the signal.
- 4 relay output module for fault, pre-alarm, alarm. Contact outputs can be set as NO or NC, typically used for connection to intrusion alarm control units or directly for wiring on electrical panels.
- Modbus output module for open protocol communication to management systems.

ESSER BY HONEYWELL COMMUNICATION MODULES:

- Absorption output module. It allows a direct connection of the sensor to the 808613.10 or 808623 transponders with 2 wires, without resistors. Alarm, pre-alarm, and fault signals will be displayed on a single input.
- Output module with O.C. opto-isolated NPN. A series of on-board resistors, selectable via dipswitch, allow the forwarding of the pre-alarm and alarm on two separate inputs, including the fault signal included.
- 3 relay output module for fault, pre-alarm, alarm. Contact outputs can be set as NO or NC.

FEATURES AND BENEFITS



Multiple communication modules for all kinds of applications



Easy replacement of sensor element in case of depletion or failure



ATEX II 2G Ex-d IIC T6 Gb certified explosion-proof metal box



Optionally configuration via Android App and PC software



Direct connection with ESSER by Honeywell loop transponder



Modbus Interface for communication to management systems

TECHNICAL DATA

TYPE	E700IR-2	E701IR-2 - BUTANE	E701IR-2 - CO2	E705IR-2	E706IR-2
Supply voltage	12/24 Vdc				
Detection type (pre-heating of 150")	Infrared				
Service life in optimal conditions	5 years				
Current consumption in standby mode	max. 90 mA				
Current consumption in alarm mode	max. 110 mA				
Operating temperature	0 °C / +50 °C				
Threshold	0-100% LEL	0-100% LEL	V1 & V2 0-10000 PPM V3 0-30000 PPM*	0-100% LEL	0-100% LEL
Resolution	0.05 up to 5%	0.05 up to 1,4%	10 PPM / 100 PPM	0.05 up to 1,7%	0.05 up to 1,7%
Linearity readout	±5%				
Precision readout @ 20 °C	±5%				
Gas response time T90	< 30 seconds				
Box	1000 g				
Weight	ATEX Exd ADPE				
Dimensions HxWxD (mm)	165 x 90 x 80				
Coverage on installation	approx. 5 meters	approx. 5 meters	approx. 5 meters	approx. 4 meters	approx. 5 meters
Certification	ATEX II 2G Ex-d IIC T6 Gb				

ORDER INFORMATION

PART NUMBER	DESCRIPTION
E700IR-2	Infrared Methane Detector in ATEX Box.
E701IR-2	Infrared Special Gases Detector in ATEX Box. It can be customized to detect these gases: Butane and Carbon Dioxide
E705IR-2	Infrared LPG Detector in ATEX Box.
E706IR-2	Infrared Propane Detector in ATEX Box.

COMMUNICATION MODULES

Since the detectors will be pre-assembled with the communication module, please indicate in your order with two separate lines next to each other the detector type and the related communication module quantity needed.

PART NUMBER	DESCRIPTION
ES1-L7	ESSER by Honeywell Interface: absorption output module.
ES2-L7	ESSER by Honeywell Interface: output module with O.C. opto-isolated NPN.
ES3-L7	ESSER by Honeywell Interface: 3 relay output module for fault, pre-alarm, alarm.
G7-42	Analog output module at 4-20 mA
G7-RL4	4 relay output module
G7-MB	Modbus output module

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IS
WHAT
WE
MAKE IT