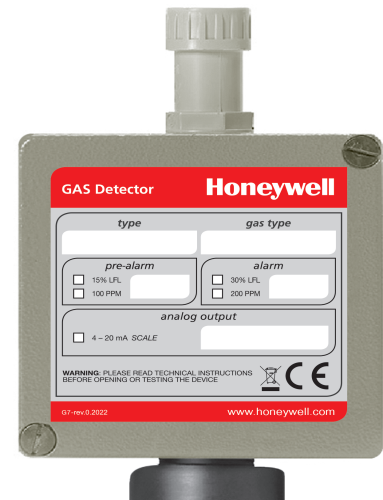# GAS DETECTION

IP55 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.

GAS Detector — **Honeywell**

type | gas type

pre-alarm | alarm
☐ 15% LFL | ☐ 30% LFL
☐ 100 PPM | ☐ 200 PPM

analog output
☐ 4 – 20 mA SCALE

WARNING: PLEASE READ TECHNICAL INSTRUCTIONS BEFORE OPENING OR TESTING THE DEVICE

G7-rev.0.2022 | www.honeywell.com

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 ADFT IP55 certified dust-proof metal box, housing both the communication electronics and the sensor element, positioned in the lower part, and protected by a special stainless-steel mesh.

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

Dust proof metal housing with IP55 standard for industrial use

Optionally configuration via Android App and PC software

Direct connection with ESSER by Honeywell loop transponder

Modbus Interface for communication to management systems

Honeywell

TECHNICAL DATA

TYPE	G700IR-2	G701IR-2 - BUTANE	G701IR-2 - CO2	G705IR-2	G706IR-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 ºC / +50 ºC				
Treshold	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 ºC	±5%				
Gas response time T90	< 30 seconds				
Box	370 g				
Weight	ADFT IP55				
Dimensions HxWxD (mm)	175 x 100 x 60				
Coverage on installation	5 m @ ceiling	5 m @ ceiling	5 m @ ceiling	approx. 4 meter	approx. 5 meter

ORDER INFORMATION

PART NUMBER	DESCRIPTION
G700IR-2	**Infrared Methane Detector** in IP55 Box.
G701IR-2	**Infrared Special Gases Detector** in IP55 Box. It can be customized to detect these gases: Butane and Carbon Dioxide
G705IR-2	**Infrared LPG Detector** in IP55 Box.
G706IR-2	**Infrared Propane Detector** in IP55 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**

THE FUTURE IS WHAT WE MAKE IT

Honeywell