SmartGate™ PBG-3 Non-Contact Safety Sensor for Parking Barrier Gates: System Description/Specifications

The SmartGate Non-Contact Safety Sensor (PBG-3) is the newest sensor from Invisa developed for use with Parking Barrier Gates. It is the only safety device currently sold for these applications that does not rely on a fixed beam, emitter/detector, contact edge or inductive loop. Sensing for the PBG-3 moves with, and in front of, the edge of the moving parking arm or slide gate, detecting conductive objects (both small and large) that may be present in the potentially hazardous path of travel. The PBG-3 continuously compensates for environmental changes. The system has a failsafe system that detects when the antenna connection is either broken or shorted.

The PBG-3 offers many new features, options and resulting benefits over its predecessor:

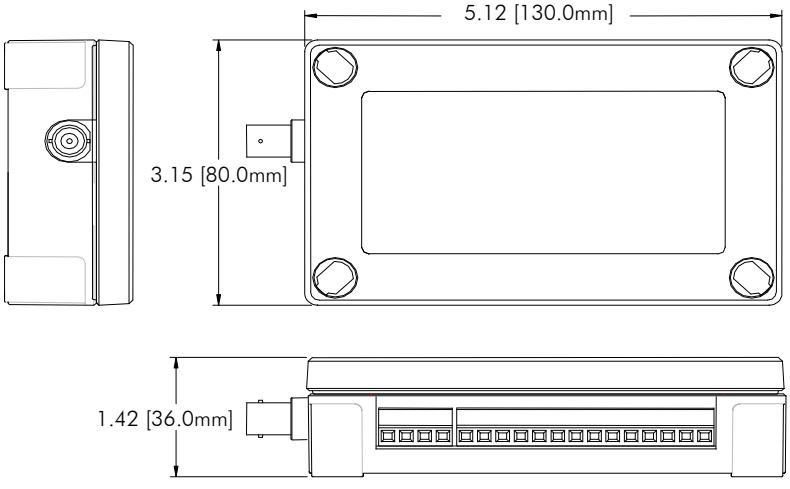
1. Digital processing to reduce susceptibility to interference from noise.
2. Faster setup and operation.
   a. Fewer connections
   b. Digital switches for "Normal" and "Reduce" settings (easy return to previous setting)
   c. Onboard signal strength LED (for test and setup)
   d. Built in frequency readout
   e. Field replaceable fuses
   f. Larger terminal blocks (accept standard screwdriver)
   g. Onboard InvisaShield™ Generator (ISG)
   h. Onboard audio output can operate on either alarm condition or when "Reduce" or "Cutout" is activated – allows faster setup of "Reduce" and "Cutout" switches
3. Greater flexibility.
   a. Optional dual input antenna
   b. Optional remote ISG
   c. Optional NEMA 4 enclosure
   d. 4 programmable "Reduce" and "Cutout" time delays
   e. 4 programmable "Reduce" and "Cutout" operation modes
   f. Smaller size for tight spaces
   g. Wider range of operating voltages
   h. Lower power consumption
   i. Relay output for normal operation and opto-isolated output for lower power operation (optional)

The PBG-3 system has 4 control inputs: Reduce, Cutout, as well as 2 auxiliary inputs to support special control functions. The Reduce and Cutout inputs can operate in 5 different modes.

GENERAL SPECIFICATIONS – PBG-3 NON-CONTACT SAFETY SENSOR

PBG-3 SYSTEM	Includes all parts for a non-metallic straight arm up to 13 feet.
OPERATIONAL METHOD	Invisible field that moves with and precedes the closing gate arm.
GATE COMPATIBILITY	Arm Material: Non-metallic or Metallic. Arm Type: Folding (articulating) or Straight. Controller: All parking gate controllers with input terminals for rebound or safety reverse. Use of gate supplied "time-out-to-close" feature recommended.
ENCLOSURE	Non-sealed (standard), NEMA 4 [IP65], or DIN rail
OPTIONS	Metallic Arm Insulator Plug for various manufacturers' gates Folding Arm Insulator Cable, (Kevlar).
DETECTION RANGE	Small conductive object (such as human hand) 8-10 inches, typical. Large conductive object (such as vehicle) 24-36 Inches, typical.
DIMENSIONS	Main Unit: 3.15" (80mm) x 5.12" (130mm) x 1.42" (35mm)
SHIPPING WEIGHT	1 lbs. (approx.)
SENSE ANTENNA	Quick connect cabinet mount BNC (4-30 feet recommended antenna length).
ALARM RELAY	Form C (Normally open or closed). Second set of contacts available from on board header.
FAILSAFE RELAY	Form C, Normally open – Normally closed contact.
ALARM PULSE	400ms per event – minimum.
ADJUSTMENTS	Normal and Reduce Digital switches 0-99 Range adjustment.
STATUS INDICATORS	Antenna Monitor, Alarm Event, Fail-Safe, Reduce, Cut-Out, Signal Strength, Frequency.
POWER SUPPLY	Plug-In Transformer, 115 VAC input to 24 VAC output. UL, CSA Class II.
POWER REQUIREMENTS	AC input (12-28 VAC), DC INPUT (4-35 VDC), 100 milliamps max, 1.2 watts max.
SURGE PROTECTION	Transorb protected.
TEMPERATURE RANGE	-30°C (-22°F) to 60°C (140°F), non-condensing.
HUMIDITY	5% (min.) to 95% (max.)
DOWN CUT-OUT	Gold contact switch, rated at 5MM cycles.
WARRANTY	Unregistered unit 90 days, Registered unit one year.

NOTE: For maximum safety, gate must be properly maintained and be in good repair. This will ensure the best response times for stopping & reversing the moving arm.



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