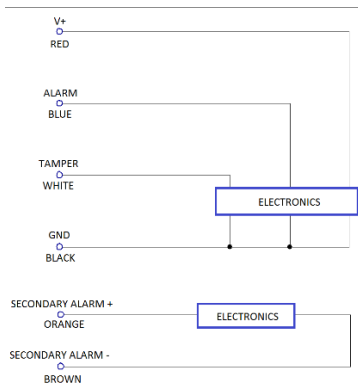


## Specifications:

Sensing Air Gap:	0 to 3/16"
Lateral Alignment:	3/16"
Max Current:	0.2 A Resistive
Max Voltage:	30 VDC
Max Power:	6 W Resistive
Max Leakage Current:	10 $\mu$ A
Input Voltage:	4 to 25.2 VDC
Input Current:	25mA, max
Temperature Rating:	-35 to +70 degrees C
Wire Gauge:	22 AWG
Suitable for outdoor use	

## Wiring Diagram:

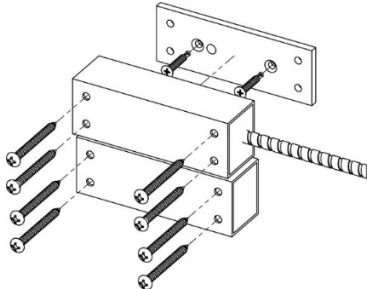
Red	Power
Black	Ground
Blue	Output 1 (Alarm)
White	Output 2 (Tamper)
Orange	Secondary Alarm +
Brown	Secondary Alarm -



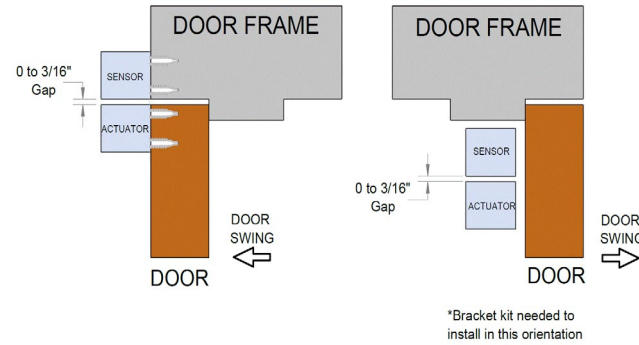
## State Diagram:

State	Blue Wire / Secondary Alarm	White Wire
Secure	Closed	Closed
Insecure	Open	Closed
Tamper	Closed	Open
Alignment	Open	Open

## Component View:



## Installation Plan:

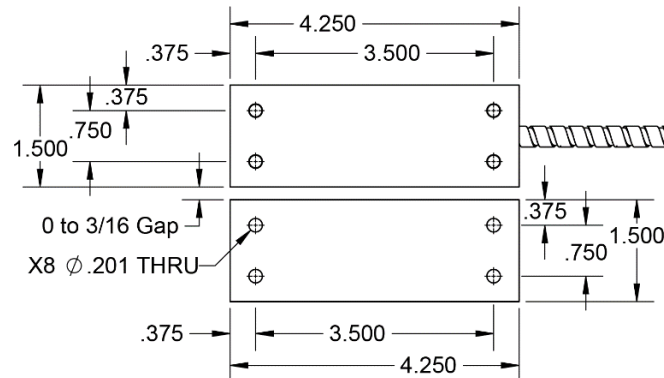


The sensor and tamper plate will be mounted to the door frame, close to the gap, without door interference. If the tamper plate is not installed, the sensor will only display a tamper state. For proper operation, the tamper plate must be mounted using the screws provided taking care to ensure that the magnet aligns with engraved target on the rear face of the sensor. The actuator will be mounted directly below the sensor. Be sure to aim the engraved targets at each other once fully installed. The sensor and actuator can be mounted on an inward or outward swinging door.

For steel mounting surfaces, mount the sensor and actuator at the edge of the mounting surface or slightly overhanging the edge of the mounting surface. This is particularly important when the air gap between the sensor and actuator is small. False tamper indications may occur if this is not done.

The operating gap must not be greater than 3/16".

## Mounting Dimensions:



# Installation and Owner's Manual

PRX+12216 Series  
QA-720 REV B



HIGH-SECURITY SENSOR





3100 Norge Road  
Chickasha, OK 73018  
Info@hsisensing.com

PHONE: 405.224.4046  
FAX: 405.224.9423  
www.hsisensing.com



## Installation & Owner's Manual

HSI Engineers welcome the opportunity to provide technical assistance on Sentinel products. However, suitability of the product in the application is the customer's responsibility. Compliance to regional electrical codes and regulations is also the customer's responsibility.

## Introduction

Sentinel Retro is a smart and tamper-proof high-security sensor. From its industrial grade aluminum body to its adaptive digital processing, Sentinel's intelligent design ensures security across a wide range of applications.

Sentinel is intended to be connected to a UL Listed compatible control panel.



Sentinel is UL634 Level 2 Certified.

## HSI SENSING CONDITIONS OF SALE

**1. PRICES**-All prices are based on anticipated continuous production and shipment as scheduled. Changes in the shipment schedule made by Buyer will result in products being invoiced at the price in effect at the time of shipment. Prices are for products of the design and material listed in the specifications.

**2. TERMS OF PAYMENT**-All orders are subject to approval of the credit department and full or partial payment may be required in advance. All invoices are due within thirty (30) days of shipping date. Payments are to be in U.S. dollars and made to HSI Sensing, 3100 Norge Road, Chickasha, OK 73018.

**3. PAST DUE PAYMENTS**-Unpaid invoices are past due and in default when not paid as provided in paragraph 2. A late charge of the less of 1-1/2% per month or the maximum allowed interest will be imposed on past due amounts. When any invoice becomes sixty (60) days old, legal or other appropriate action will be taken to collect the entire account balance. The customer agrees company will indemnify HSI Sensing for all expenses incurred in connection with collection of past due amounts.

**4. TAXES**-Sales are considered to be taxable, unless otherwise specifically exempt. Tax will be added to all invoices unless an Exemption Certificate, acceptable to the appropriate tax authority, is in the possession of HSI Sensing, prior to delivery. Purchaser shall reimburse HSI Sensing, prior to delivery. Purchaser shall reimburse HSI Sensing, for any sales, use occupation, excise or similar tax that may be imposed upon HSI Sensing, for any reason, arising out of or in connection with its sales to Purchaser.

**5. CANCELLATION**-No order may be cancelled except upon written agreement with HSI Sensing, and upon payment by Purchaser of all costs arising in connection with the order.

**6. FREIGHT**-Pricing for this order is FOB Chickasha, Oklahoma. Shipping charges will be prepaid by shipper and charged to Purchaser's invoice.

**7. MATERIAL DAMAGED IN TRANSIT**-Purchaser shall inspect shipments upon receipt from common carriers and in the event of damage or loss shall promptly file a claim against the carrier. If the customer is in urgent need of replacements for damaged or lost material, he should give HSI Sensing a new order marked as follows: "For replacement of material damaged in transit." Purchaser shall pay the invoice for such replacements and request a duplicate receipt to facilitate filing the claim against the carrier.

**8. RETURN OF NEW MATERIAL**-No material shall be returned without written authorization and shipping instructions first having been obtained from HSI Sensing. Permission to return an item is in the sole discretion of HSI Sensing and may be exercised arbitrarily. Any item for which permission is granted to return the item must be returned freight prepaid and will be subject to a 20% re-stocking charge, \$50 minimum. The return ticket must show the invoice number and date on which each item was purchased.

MATERIAL RETURNED WITHOUT WRITTEN AUTHORIZATION WILL NOT BE ACCEPTED.

**9. LIMITED WARRANTY AND LIABILITY**-HSI Sensing ("HSI") hereby expressly warrants its products to be free from defects in material and workmanship under normal use for a period of 30 days from the date of sale to Purchaser. This warranty extends to the original Purchaser only. This limited warranty does not cover damage caused by accident, unreasonable use or modifications.

HSI's sole obligation under this limited warranty and the purchaser's exclusive remedy is limited to the repair or replacement, without charge, FOB shipping point of any defective products or parts of products (excluding any labor or installation) which HSI, after inspection, has determined to be defective; provided that (1) Purchaser immediately notifies HSI in writing upon the discovery of any claimed defect and (2) the product is returned, freight prepaid to HSI, FOB shipping point. Purchaser must contact HSI within the warranty period to obtain warranty service and provide documentation of the installation and use of the product in strict compliance with HSI's recommended practices and guidelines. HSI is not responsible for costs incurred in repairing or replacing defective products without HSI warranty service authorization.

HSI EXCLUDES LIABILITY, WHETHER BASED ON CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR ANY DAMAGE TO PURCHASER'S OR OTHER END USER'S EQUIPMENT OR ANY PUNITIVE, SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, OR FAILURE OF THE PRODUCTS, EVEN IF HSI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THIS DISCLAIMER OF LIABILITY SHALL NOT BE AFFECTED EVEN IF ANY REMEDY PROVIDED HEREIN FAILS ITS ESSENTIAL PURPOSE. Purchaser shall indemnify and hold HSI harmless from and against all claims of loss or damage other than the cost of repair or replacement of its products or parts of products, as described above. Purchaser acknowledges and agrees that the above warranty is in addition to and not in replacement of any warranty provided by the original manufacturer of any components used

by HSI in manufacturing the products sold to Purchaser. HSI assumes no liability for warranties granted by the original manufacturer.

HSI MAKES NO EXPRESS OR IMPLIED WARRANTIES OTHER THAN AS SPECIFICALLY SET OUT IN THIS SECTION. EXCEPT FOR THE EXPRESS LIMITED WARRANTY SET FORTH IN THIS SECTION, ALL PRODUCTS ARE SOLD "AS IS" "WITH ALL FAULTS" AND THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, COMPLIANCE WITH DESCRIPTION AND NON-INFRINGEMENT IN CONNECTION WITH ANY SALE.

Purchaser acknowledges and agrees that it must perform adequate engineering and quality control to assure that the product is suitable for Purchaser's application. HSI shall not be responsible or liable to Purchaser, any third party or end user, or for design assembly or end use of Purchaser's product. Upon accepting the product from HSI, Purchaser assumes full responsibility for use of and care of the product.

No statement, agreement, representation, promise or understanding, oral or written, made by HSI or its agent, representative or employee, that is not contained in these terms and conditions will be recognized or enforceable or binding upon HSI. PURCHASER AGREES THERE ARE NO UNDERSTANDINGS OR UNDERTAKINGS OF ANY KIND WITH RESPECT TO THE PRODUCTS OR ANY PART THEREOF NOT EXPRESSLY SET FORTH AND CONTAINED IN THESE TERMS AND CONDITIONS.

If any provision of this Section is held to be illegal or unenforceable by any court or competent jurisdiction, the remaining provisions shall remain effective. Some states or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages for certain products supplied to consumers or the limitation of liability for personal injury, so the limitations and exclusions above may be limited in their applications to Purchaser. When the implied warranties cannot be excluded in their entirety, they will be limited to the duration of the written warranty. This warranty gives Purchaser specific legal rights that may vary depending upon local law.

Any action for breach of this the limited warranty contained in this Section must be commenced within one (1) year after the product is delivered to Purchaser.

**10. PERFORMANCE**-HSI Sensing will not be responsible for any delay or failure in performance caused by circumstances beyond the reasonable control of HSI Sensing and affecting them or others, including but not limited to the following: acts of God, riots, embargoes, strikes or other concerted acts of workmen, casualties or accidents, delays in transportation, shortage of power, fuel, labor or materials.

**11. PATENTS**-Purchaser shall hold HSI Sensing harmless from and release and not make claim or suit against HSI Sensing, Inc. because of any suits, claims, losses or other liability made against or suffered by Purchaser arising from any claim of or infringement of patent copyright, trademark or other proprietary right, at common law or claim of unfair trade or of unfair competition, resulting from or occasioned by Buyer's use, possession, sale or delivery of the merchandise sold to Buyer by Seller.

**12. PURCHASE ORDER**-If this quotation is accepted and Purchaser's order form is used for the purpose, it is expressly agreed that the terms and conditions set forth in this HSI Sensing Order Acknowledgment Sale Agreement shall prevail insofar as the same may in any way conflict with the terms and conditions set forth in Purchaser's order form or other Purchaser documents. The issuance of such order by Purchaser shall be deemed to denote Purchaser's assent to the foregoing.

**13. CHOICE OF LAW**-This order shall be construed and interpreted according to the law of the State of Oklahoma, provided however, that is a Government Prime Contract number appears on the face of this Order or if the face of this Order otherwise indicates that this Order is placed under a Government Contract and the law of the State of Oklahoma is not dispositive, the federal common law of government contract shall govern as said law is enunciated and applied by federal judicial bodies, boards of contract appeals and quasi-judicial agencies of the federal government.

## Required Tools and Components

Provided by Manufacturer (per kit): 1 Sensor, 1 Tamper Plate, 1 Actuator, 8 Thread Cutting Phillips Head Screws (#10-32 x 2"), 2 Sheet Metal Phillips Head Screws (#8-15 x 1"), 3 1/16" Spacer plates.

Provided by Installer: Power Drill, Phillips Head Drill Bit, Rule (or any linear measuring instrument), a center punch & hammer for more accurate hole locations may be used, a 3/32" pilot drill bit, Additional 1/16" spacers (HSI P/N 245362).