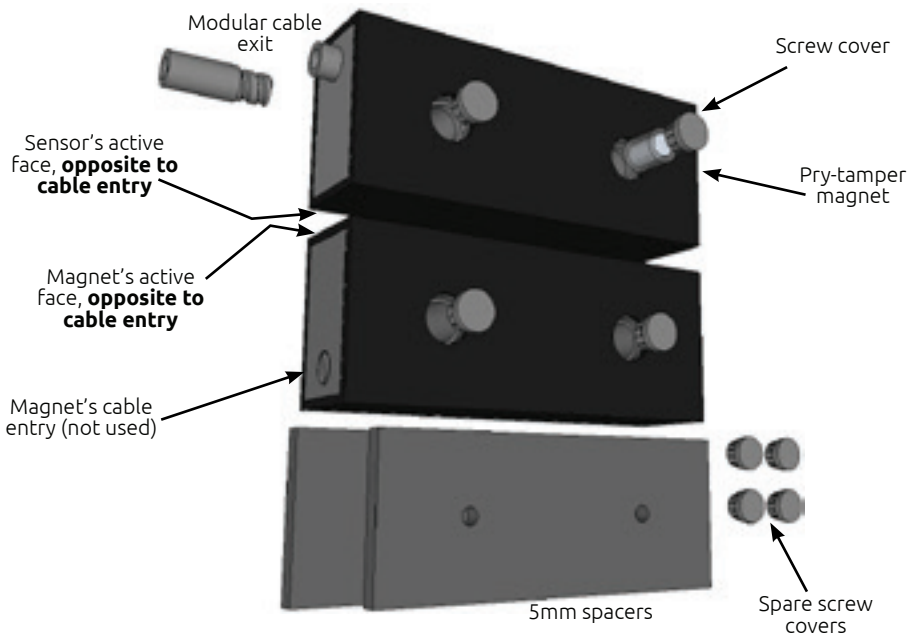


# High security anti-masking magnetic contacts w/ Coded Sensor Technology CST-16V-M models w/ integrated passive vibration sensor, surface mount, partial potting, screw terminals

## 1. TECHNICAL FEATURES

- \* Based on patented Magnasphere® anti-masking technology, used under license
- \* Coded Sensor Technology is a TSEC patented design
- \* Passive device with matching coded sensor/magnet pairs
- \* Integrated hybrid magnetic passive vibration/shock detector
- \* Size in mm magnet/sensor (l x h x d): 100 x 40 x 25
- \* Four electrical circuits, screw terminals:
- \* Electrical parameters: (max., per circuit): 30VDC, 250mA, 0.25W
- \* Anodized aluminum case, partial potting
- \* Certified Grade 3, Env. Class II according to EN 50131-2-6

## 2. PACKAGING



## 3. TAMPERING DETECTION SYSTEMS

### \* Coded sensor technology

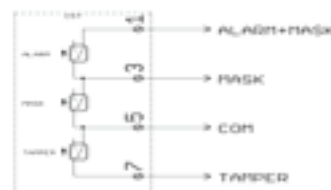
- \* Only a magnet that is specifically coded for a particular type of CST sensor will be able to close the primary circuit (terminals 3/1) at the specified make distance.
- \* The primary magnetic tamper circuit (terminals 3/5) will open in case a magnet different from the coded one is placed near the active face of the sensor. **This circuit must be monitored 24h**

### \* Pry-tamper on the sensor

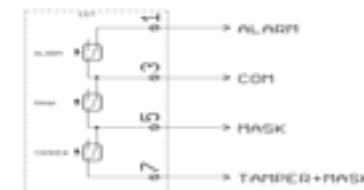
- \* A patented Magnasphere design employing a magnet covering one of the screws fixing the sensor to the wall.
- \* Removing such magnet will cause the pry-tamper circuit (terminals 5/7) to open. This circuit should be monitored 24h.

## 4. WIRING DIAGRAM AND EXAMPLES

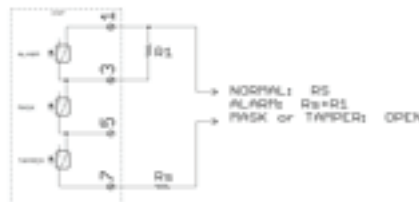
### WIRING NC 1



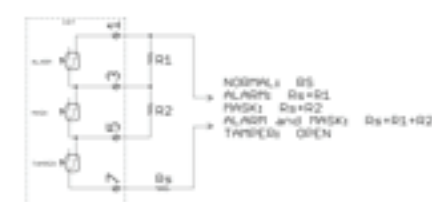
### WIRING NC 2



### DOUBLE BALANCE



### TRIPLE BALANCE



\* Connect the 2/4 circuit to a port of a VAS-100, VAS-400 or VAS-800 analysis board.

## 5. PREPARING THE SENSOR FOR INSTALLATION

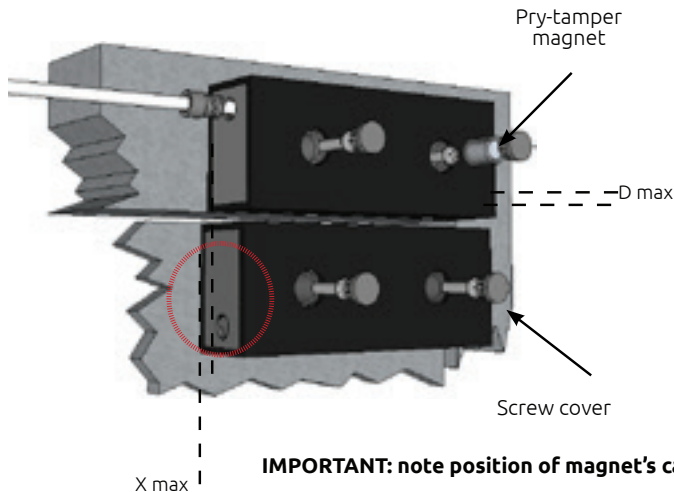


# High security anti-masking magnetic contacts w/ Coded Sensor Technology

## CST-16V-M models w/ integrated passive vibration sensor, surface mount, partial potting, screw terminals

- \* Remove the aluminum body by unscrewing the two stainless screws on the back of the sensor
- \* Check the operation of the anti-removal sensor by inserting the magnet supplied in the appropriate hole on the right in the figure, monitoring the output of the terminals 5/7
- \* The sensor is supplied with the cable exiting on the left side
- \* In order to use the right side cable exit, disassemble the sensor by removing the two small countersunk screws on the back of the sensor, and then slide the ABS skeleton out of the aluminum case
- \* Remove the cable retention plate, and remove the cable from the left exit hole
- \* With a flat screwdriver, remove the right cable exit hole plastic cap
- \* Use pliers to remove the right side cap stop
- \* Reassemble the sensor following the above steps in the reverse order with the cable exiting the right side
- \* The cable can be protected either by screwing into the cable exit hole one of the following:
  - \* short cable exit (no protection, included in the product's package);
  - \* long cable exit (included in the product's package), suitable for acting as terminal for any sheath with 8mm internal diameter;
  - \* dedicated reinforced stainless steel sheath (part no. CLH-2G), that can be locked in place by piercing it with pliers

### 6. IN-LINE INSTALLATION



#### Mounting distance

Axis	Iron Mount.	No iron Mount.
D	<=6mm	<=6mm
X	<=2mm	<=2mm

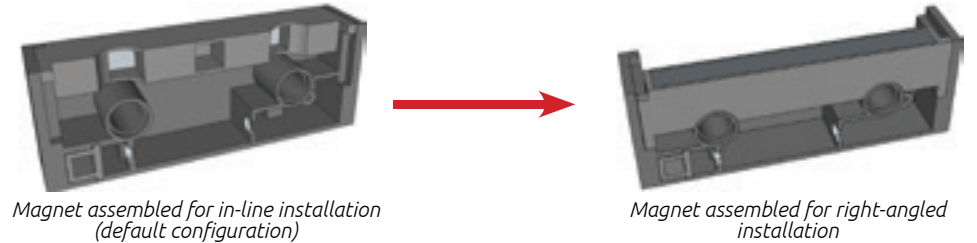
#### Activation distance

Axis	Iron Mount.	No iron Mount.
D	(9+2)mm	(9+2)mm
X	(8+3)mm	(8+3)mm

**IMPORTANT: note position of magnet's cable exit plug**

- \* The contact is shipped with the magnet assembled for in-line installation.
- \* Position sensor and magnet according to the figure:
  - \* The sensor's active face is the one opposite to the sensor's cable exit side
  - \* The magnet's active face is the one opposite to the magnet's cable exit plug
- \* Magnet and sensor must be installed so that each other's active face are within the operating gap distance when the door is closed.
- \* Place the pry-tamper magnet in the right side screw hole.

### 7. PREPARING THE MAGNET FOR RIGHT-ANGLED INSTALLATION



### 8. RIGHT-ANGLED INSTALLATION

- \* Re-assemble the magnet for right-angled installation (see previous section).
- \* Position sensor and magnet according to the figure, and considering the respective positions of the sensor's and magnet's active faces.
- \* Place the pry-tamper magnet as shown in the figure.

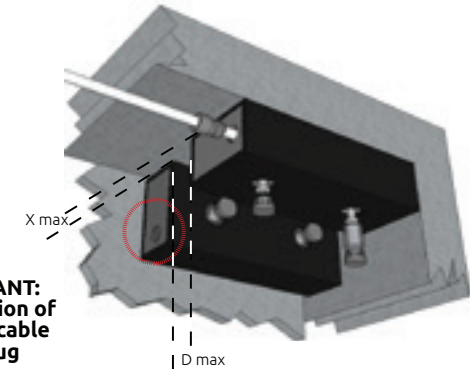
#### Mounting distance

Axis	Iron Mount.	No iron Mount.
D	<=6mm	<=6mm
X	<=2mm	<=2mm

#### Activation distance

Axis	Iron Mount.	No iron Mount.
D	(9+2)mm	(9+2)mm
X	(8+3)mm	(8+3)mm

**IMPORTANT: note position of magnet's cable exit plug**



### 9. SECURITY RECOMMENDATIONS

- \* Note that screw caps are anti-tamper, and should be positioned only after testing is complete.
- \* If necessary, use the supplied 5mm spacers to better align sensor and magnet.
- \* **Note that there is no minimum operating gap: you can install magnet and sensor as close to each other as needed.**
- \* To obtain a maximum security installation, it is recommended that:
  - \* the operating distance between sensor and magnet is minimised;
  - \* sensor and magnet are installed with one-way security screws.

### 10. OPTIONAL ACCESSORIES

- \* One way, stainless steel, self tapping screws part no. **CLH-1S**.
- \* For maximum security, we recommend installing the reinforced, stainless steel sheath part no. **CLH-2G10**.
- \* For installation on safes and armored panels, use accessory iron supports w/ one-way security screws, part no. **CST-1MF**, for easier installation.