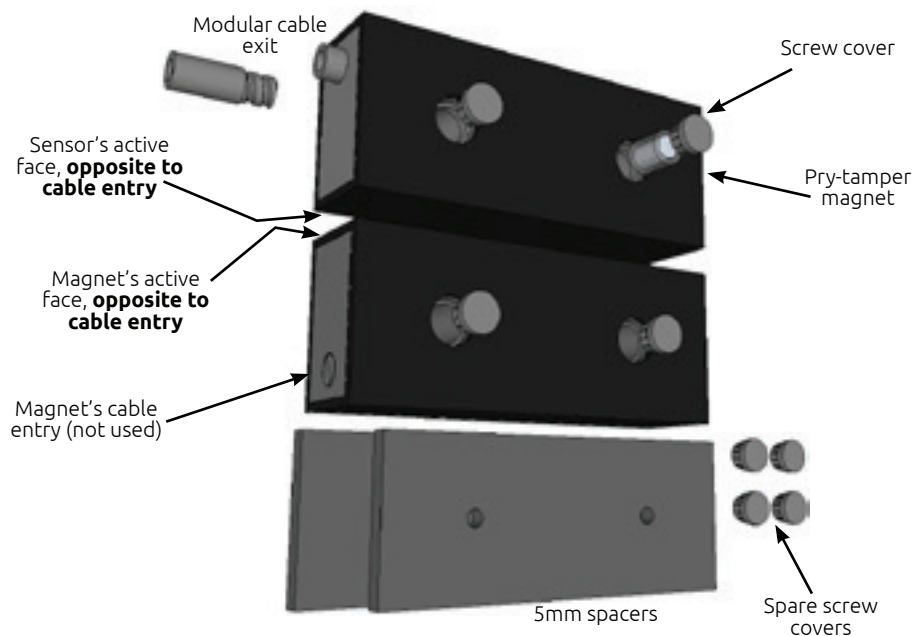


# High security anti-masking magnetic contacts w/ Coded Sensor Technology CST-15-M-r models, surface mount, partial potting, screw terminals

## 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
- \* Size in mm magnet/sensor (l x h x d): 100 x 40 x 25
- \* Three electrical circuits:
- \* 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

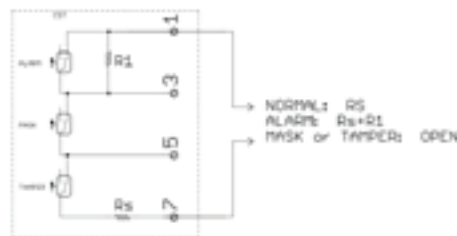


## 3. TAMPERING DETECTION SYSTEMS

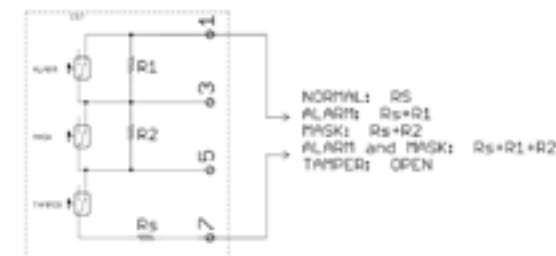
- \* **Coded sensor technology**
  - \* Only a magnet that is specifically coded for a particular type of CST sensor will be able to close the primary circuit (terminals 3/1) at the specified make distance.
  - \* CST magnets different from the coded one, or magnetic tampering attempts in the operating gap between the sensor and the reference magnet will open the primary circuit (terminals 3/1).
  - \* 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 3/4) to open. This circuit should be monitored 24h
  - \* Note that placing a strong magnet near such screw hole might also cause the pry-tamper circuit to open, further strengthening the anti-magnet tamper properties of the device.

## 4. WIRING DIAGRAM AND EXAMPLES

### DOUBLE BALANCING VERSION Dxx RED and WHITE threads



### TRIPLE BALANCING VERSION Txx RED and WHITE threads



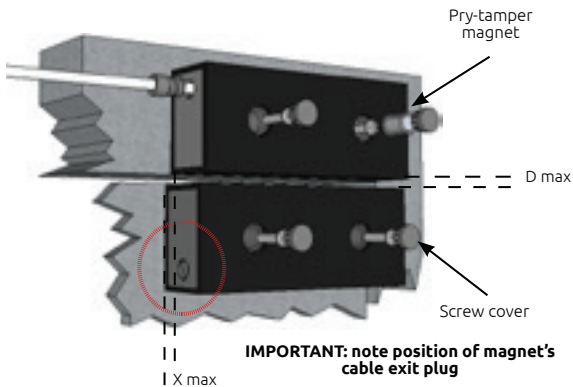
# High security anti-masking magnetic contacts w/ Coded Sensor Technology CST-15-M-r models, surface mount, partial potting, screw terminals

## 5. PREPARING THE SENSOR FOR INSTALLATION



- \* 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
- \* Please note that the sensor and the magnet have only one active face, which is the one opposite to the cable entry side (see Figure on the left side of this page).
- \* 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-2G10), that can be locked in place by piercing it with pliers;

## 6. IN-LINE INSTALLATION



### Mounting distance

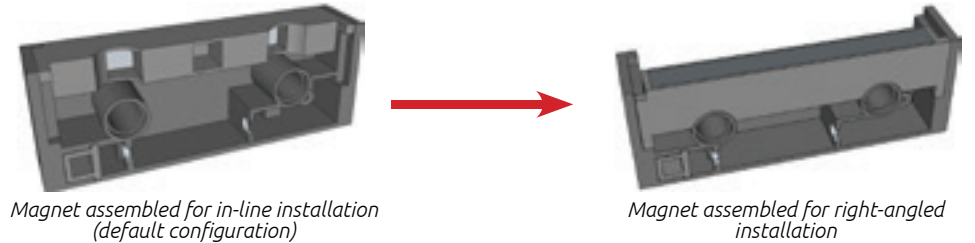
Axis	Iron Mount.	No iron Mount.
D	<=6mm	<=6mm
X	<=2mm	<=2mm

### Activation distance

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

- \* 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

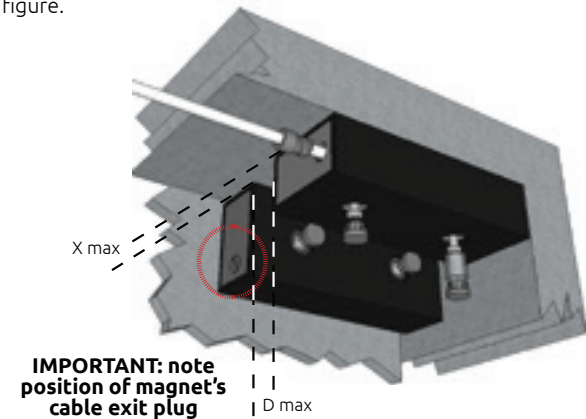
- \* Re-assemble the magnet for right-angled installation (see previous section).
- \* Position sensor and magnet according to the figure, and considering the respective positions of the sensor's and magnet's active faces.
- \* Place the pry-tamper magnet as shown in the figure.

### 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



## 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.