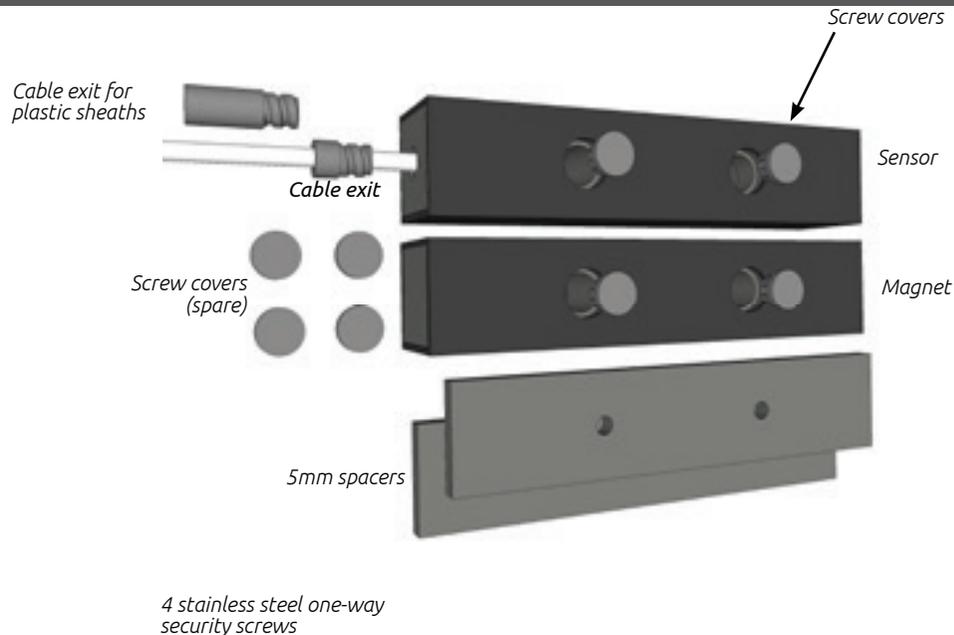


High security anti-masking magnetic contacts w/ Coded Sensor Technology CST-03 models, surface mount, fully potted, flying lead

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
- * Large operating gap which makes it ideal on any type of gate or large door.
- * Size in mm magnet/sensor (l x h x d): 120 x 25 x 25
- * Flying lead (30VDC, 250mA, 0.25W max. per circuit):
 - * Versions without integrated EOL resistors (mod. no. CST-03):
 - * WHITE/RED: primary alarm
 - * WHITE/GREEN: magnetic tamper on main active face (wrong magnetic code)
 - * Versions with integrated EOL resistors (mod. no. CST-03-r):
 - * RED/GREEN: primary alarm + magnetic tamper on main active face (wrong magnetic code)
- * Anodized aluminum case, full potting, suitable for external use.
- * Certified Grade 3, Env. Class IV according to EN 50131-2-6

2. PACKAGE CONTENTS



3. TAMPERING DETECTION SYSTEM: CODED SENSOR TECHNOLOGY

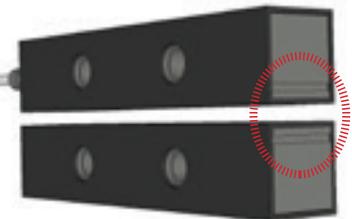
- * Models without integrated EOL resistors (mod. no. CST-03):
 - * Only a magnet that is specifically coded for a particular type of CST sensor will be able to close the primary circuit (WHITE/RED) at the specified make distance.
 - * CST magnets different from the coded one, or magnetic tampering attempts in the operating gap between the sensor and the reference magnet will open the tamper circuit (WHITE/GREEN). **This circuit should be monitored 24/7/365**
- * Models with integrated EOL resistors (mod. no. CST-03-r):
 - * Only a magnet in secure position that is specifically coded for a particular type of CST sensor will result in a EOL resistor of value r . Moving the magnet away from the secure position will result in a EOL resistor of value $2r$.
 - * 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 circuit, thereby signalling the tamper attempt at the panel.

4. PREPARING THE SENSOR FOR INSTALLATION

- * 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;
 - * reinforced stainless steel sheath (part no. CLH-2G10), that can be locked in place by piercing it with pliers;

5. SWAPPING RIGHT/LEFT CABLE EXIT

- * Coded Sensor Technology requires that sensor and magnet are aligned according to a specific, pre-defined scheme: the installation is correct only when the two indentations on the side of sensor and magnet are aligned exactly as shown in the picture on the right.
- * The sensor is supplied with the cable exiting on the left side.
- * In order to use the right side cable exit:
 - * Disassemble both sensor and magnet by removing the four small countersunk screws on the back of the housings, and then slide the ABS skeletons out of the aluminum cases (fig.A).
 - * Slide the sensor and the magnet out of the aluminum cases, rotate them 180 degrees, and put them back (fig.B).
 - * Reassemble sensor and magnet. **Make sure that the two indentation appear exactly as shown in figure C.**

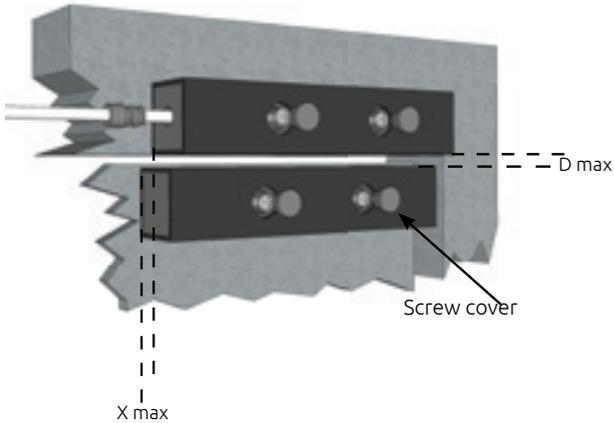


Sensor and magnet with left cable exit (default configuration). Note the two indentations on the sides of the enclosures.



High security anti-masking magnetic contacts w/ Coded Sensor Technology CST-03 models, surface mount, fully potted, flying lead

6. IN-LINE INSTALLATION



Mounting distance

Axis	Iron Mount.	No iron Mount.
D	$\leq 17\text{mm}$	$\leq 17\text{mm}$
X	$\leq 10\text{mm}$	$\leq 10\text{mm}$

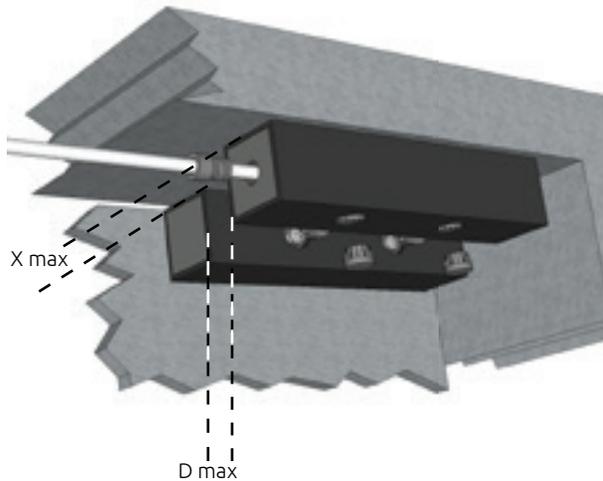
Activation distance

Axis	Iron Mount.	No iron Mount.
D	$(21+5)\text{mm}$	$(21+5)\text{mm}$
X	$(13+2)\text{mm}$	$(13+2)\text{mm}$

* Position sensor and magnet according to the figure, making sure that the two indentations on the sides of the enclosures are right next to each other, as shown in the previous chapter.

7. RIGHT-ANGLED INSTALLATION

- * Position sensor and magnet according to the figure. Make sure the two indentations on the plastic enclosures of sensor and magnet are on the same side.
- * Keep D and X as small as possible, ideally less than 1mm.



Mounting distance

Axis	Iron Mount.	No iron Mount.
D	$\leq 8\text{mm}$	$\leq 8\text{mm}$
X	$\leq 5\text{mm}$	$\leq 5\text{mm}$

Activation distance

Axis	Iron Mount.	No iron Mount.
D	$(19+10)\text{mm}$	$(19+10)\text{mm}$
X	$(11+5)\text{mm}$	$(11+5)\text{mm}$

8. INSTALLATION ON SLIDING DOORS



* Installation on sliding doors requires mounting sensor and magnet as shown in the picture above on the right. In practice, care must be taken so that when the door is opening and closing the magnet does not slide from/to the sensor.

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, such as the ones **included in the package**.

10. OPTIONAL ACCESSORIES

- * One way, stainless steel, self tapping screws part no. **CLH-1S (included)**.
- * 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-OMF**, for easier installation.