



# SENSEMASTER LTD

Sensing, Heating & Anti-static Solutions

Sensemaster Ltd.  
Unit 1 Severn Bridge Ind Est.  
Caldicot, Monmouthshire. NP26 5PW

## CAST-X 500 WITH NEMA 1 and NEMA 4 ENCLOSURE (same enclosure for NEMA 1 or 4)

NEMA 4 simply has a sealant applied on the inside rim of the lid, as an extra protective measure.



- UL 508A Listed; Type 4, 6, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 6, 12, 13; File No. E61997
- NEMA Type 4, 6, 12, 13
- CSA, File No. 42186: Type 4, 12, 13
- IEC 60529, IP67

## CAST-X 500 WITH EXPLOSION PROOF ENCLOSURE (NB only the enclosure is rated the cast body is not)



- UL Standard: 1203
- ANSI Standard: C33.27
- CSA Standard: C22.2 No. 30
- NEMA/EEMAC 3, 4
- NEC / CEC Certs:
  - Cl. I, Div. 1 & 2, Groups B\*, C, D (Explosion-proof)
  - Cl. II, Div. 1, Groups E, F, G (Dust-Ignition proof)
  - Cl. II, Div. 2, Groups F, G (Rain-tight)
  - Cl. III (Wet Locations)



# **SENSEMASTER LTD**

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## **CAST-X 1000 WITH GENERAL PURPOSE ENCLOSURE**



- This enclosure is not certified to any particular zone or group.
- It is not “NEMA Certified”.
- It can be referred to as a “Dust Cap” or “General Purpose Enclosure”
- This is true whether the enclosure has the Thermostat or not.

## **CAST-X 1000 WITH WATER RESISTANT ENCLOSURE – WITHOUT T-STAT**

**If this enclosure has an external T-Stat it will be 4 X 4 inches, Depicted below**



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66



- If it has a T-Stat inside, it will be 6 x 6 inches, as depicted here



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## CAST-X 1000 WITH WATER RESISTANT ENCLOSURE – WITH T-STAT



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66

## CAST-X 2000 WITH GENERAL PURPOSE ENCLOSURE – NO TSTAT - STANDARD MOUNT



- This enclosure is not certified to any particular zone or group.
- It is not “NEMA Certified”.
- It is referred to as a “Dust Cap” or “General Purpose Enclosure”
- This is true whether the enclosure has a Thermostat or not.

## CAST-X 2000 WITH GENERAL PURPOSE ENCLOSURE – WITH TSTAT – STANDARD MOUNT



- This enclosure is not certified to any particular zone or group.
- It is not “NEMA Certified”.
- It is referred to as a “Dust Cap” or “General Purpose Enclosure”
- This is true whether the enclosure has a Thermostat or not.



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## CAST-X 2000 WITH GENERAL PURPOSE ENCLOSURE – NO TSTAT - STANDOFF MOUNT



- This enclosure is not certified to any particular zone or group.
- It is not “NEMA Certified”.
- It is referred to as a “Dust Cap” or “General Purpose Enclosure”
- Standoff with T-stat not available.

## CAST-X 2000 WITH WATER RESISTANT ENCLOSURE – NO T-STAT



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66
- External stat required, housing 4 x 4 inches

## CAST-X 2000 WITH WATER RESISTANT ENCLOSURE – with T-STAT



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66
- Internal T-stat, housing 6 x 6 inches



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## CAST-X 2000 WITH WATER RESISTANT ENCLOSURE – NO T-STAT and STANDOFF MOUNT



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66
- Standoff not available with T-stat

## CAST-X 2000 WITH EXPLOSION PROOF ENCLOSURE – NO T-STAT, STANDARD MOUNT (NB only the enclosure is rated the cast body is not)



- Hazardous Location Terminal Enclosure
- CSA, US and Canada Mark
- Class 1, Divs. 1 & 2, Groups A, B, C, D
- Class 2, Divs. 1 & 2, Groups E, F, G
- Class 3, Divs. 1 & 2

**Enclosure is certified by CSA (Canadian Standards Association) which is very similar to NEMA, but not exact same agency & is not Atex rated.**  
(See notes on Atex rating at end of list)

## CAST-X 2000 WITH EXPLOSION PROOF ENCLOSURE – WITH T-STAT, STANDARD MOUNT (NB only the enclosure is rated the cast body is not)



- Hazardous Location Terminal Enclosure
- CSA, US and Canada Mark
- Class 1, Divs. 1 & 2, Groups A, B, C, D
- Class 2, Divs. 1 & 2, Groups E, F, G
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- Class 3, Divs. 1 & 2

**Enclosure is certified by CSA (Canadian Standards Association) which is very similar to NEMA, but not exact same agency & is not Atex rated.**  
(See notes on Atex rating at end of list)

## CAST-X 2000 WITH EXPLOSION PROOF ATEX CERTIFIED ENCLOSURE (NB only the enclosure is rated the cast body is not)



**This option is not listed as a standard product & is custom made.**  
**Please contact Sensemaster for quoting.**  
**Please note this custom option is not available with a T-stat.**

- ATEX Certified Explosion Proof
  - UL Classified 9L44
  - CSA Code LR 86146
  - FM Cert: FM09ATEX0073U
  - Class 1, Div. 1 & 2, Groups B, C, D
  - Class 1, Zone 1 & 2, IIB + H2
  - Class 2, Div. 1 & 2, Groups E, F, G, Class 3, Div. 1 & 2
- Enclosure Type 4X (Type 7, & 9 for UL)
  - IEC Certified: Ex db IIC Gb, EX tb IIIC Db

## CAST-X 2500 WITH GENERAL PURPOSE ENCLOSURE – NO T-STAT DUAL TUBE



- This enclosure is not certified to any particular zone or group.
- It is not “NEMA Certified”.
- It is referred to as a “Dust Cap” or “General Purpose Enclosure”
- This is true whether the enclosure has a Thermostat or not.



## CAST-X 2500 WITH GENERAL PURPOSE ENCLOSURE – NO T-STAT..... SINGLE TUBE



- This enclosure is not certified to any particular zone or group.
- It is not “NEMA Certified”.
- It is referred to as a “Dust Cap” or “General Purpose Enclosure”
- This is true whether the enclosure has a Thermostat or not.

## CAST-X 2500 WITH WATER RESISTANT ENCLOSURE – WITH OR WITHOUT T-STAT - DUAL TUBE



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66

**Enclosure is certified by CSA (Canadian Standards Association) which is very similar to NEMA, but not exact same agency & is not Atex rated.**

**(See notes on Atex rating at end of list)**

<https://sensemaster.co.uk/wp-content/uploads/2024/08/Explosion-Proof-Atex-Rating.pdf>

## CAST-X 2500 WITH WATER RESISTANT ENCLOSURE – WITH OR WITHOUT T-STAT - SINGLE TUBE



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66

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## CAST-X 2500 WITH EXPLOSION PROOF ENCLOSURE – NO T-STAT – DUAL TUBE (NB only the enclosure is rated the cast body is not)



- Hazardous Location Terminal Enclosure
- CSA, US and Canada Mark
- Class 1, Divs. 1 & 2, Groups A, B, C, D
- Class 2, Divs. 1 & 2, Groups E, F, G
- Class 3, Divs. 1 & 2

**Enclosure is certified by CSA (Canadian Standards Association) which is very similar to NEMA, but not exact same agency & is not Atex rated.**

**(See notes on Atex rating at end of list)**

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## CAST-X 2500 WITH EXPLOSION PROOF ENCLOSURE – NO T-STAT – SINGLE TUBE (NB only the enclosure is rated the cast body is not)



- Hazardous Location Terminal Enclosure
- CSA, US and Canada Mark
- Class 1, Divs. 1 & 2, Groups A, B, C, D
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**Enclosure is certified by CSA (Canadian Standards Association) which is very similar to NEMA, but not exact same agency & is not Atex rated.**

**(See notes on Atex rating at end of list)**

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## CAST-X 2500 WITH EXPLOSION PROOF ENCLOSURE – WITH T-STAT – DUAL TUBE (NB only the enclosure is rated the cast body is not)



- Hazardous Location Terminal Enclosure
- CSA, US and Canada Mark
- Class 1, Divs. 1 & 2, Groups A, B, C, D
- Class 2, Divs. 1 & 2, Groups E, F, G
- Class 3, Divs. 1 & 2

**Enclosure is certified by CSA (Canadian Standards Association) which is very similar to NEMA, but not exact same agency & is not Atex rated.**

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## **CAST-X 2500 WITH EXPLOSION PROOF ENCLOSURE – WITH T-STAT – SINGLE TUBE** (NB only the enclosure is rated the cast body is not)



- Hazardous Location Terminal Enclosure
- CSA, US and Canada Mark
- Class 1, Divs. 1 & 2, Groups A, B, C, D
- Class 2, Divs. 1 & 2, Groups E, F, G
- Class 3, Divs. 1 & 2

**Enclosure is certified by CSA (Canadian Standards Association) which is very similar to NEMA, but not exact same agency & is not Atex rated.**

**(See notes on Atex rating at end of list)**

<https://sensemaster.co.uk/wp-content/uploads/2024/08/Explosion-Proof-Atex-Rating.pdf>

## **CAST-X 2500 WITH EXPLOSION PROOF ATEX CERTIFIED ENCLOSURE – WITH OR WITHOUT T-STAT – DUAL TUBE** (NB only the enclosure is rated the cast body is not)



- ATEX Certified Explosion Proof
- UL Classified 9L44
- CSA Code LR 86146
- FM Cert: FM09ATEX0073U
- Class 1, Div. 1 & 2, Groups B, C, D
- Class 1, Zone 1 & 2, IIB + H2
- Class 2, Div. 1 & 2, Groups E, F, G, Class 3, Div. 1 & 2
- Enclosure Type 4X (Type 7, & 9 for UL)
- IEC Certified: Ex db IIC Gb, EX tb IIIC Db

## **CAST-X 2500 WITH EXPLOSION PROOF ATEX CERTIFIED ENCLOSURE – WITH OR WITHOUT T-STAT – SINGLE TUBE** (NB only the enclosure is rated the cast body is not)



- ATEX Certified Explosion Proof
- UL Classified 9L44
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- FM Cert: FM09ATEX0073U
- Class 1, Div. 1 & 2, Groups B, C, D
- Class 1, Zone 1 & 2, IIB + H2
- Class 2, Div. 1 & 2, Groups E, F, G, Class 3, Div. 1 & 2
- Enclosure Type 4X (Type 7, & 9 for UL)
- IEC Certified: Ex db IIC Gb, EX tb IIIC Db



## CAST-X 3000 WITH WATER RESISTANT ENCLOSURE – DUAL TUBE



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66

## CAST-X 3000 WITH WATER RESISTANT ENCLOSURE – SINGLE TUBE



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66

## CAST-X 3000 WITH EXPLOSION PROOF ATEX CERTIFIED ENCLOSURE DUAL TUBE (NB only the enclosure is rated the cast body is not)



- ATEX Certified Explosion Proof
- UL Classified 9L44
- CSA Code LR 86146
- FM Cert: FM09ATEX0073U
- Class 1, Div. 1 & 2, Groups B, C, D
- Class 1, Zone 1 & 2, IIB + H2
- Class 2, Div. 1 & 2, Groups E, F, G, Class 3, Div. 1 & 2
- Enclosure Type 4X (Type 7, & 9 for UL)
- IEC Certified: Ex db IIC Gb, EX tb IIIC Db



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- ATEX Certified Explosion Proof
- UL Classified 9L44
- CSA Code LR 86146
- FM Cert: FM09ATEX0073U
- Class 1, Div. 1 & 2, Groups B, C, D
- Class 1, Zone 1 & 2, IIB + H2
- Class 2, Div. 1 & 2, Groups E, F, G, Class 3, Div. 1 & 2
- Enclosure Type 4X (Type 7, & 9 for UL)
- IEC Certified: Ex db IIC Gb, EX tb IIIC Db

## **CAST-X 4000 WITH WATER RESISTANT ENCLOSURE – DUAL TUBE**



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
- NEMA/EEMAC Type 4, 12, 13
- CSA, File No. 42184: Type 4, 12
- IEC 60529, IP66

## **CAST-X 4000 WITH WATER RESISTANT ENCLOSURE – SINGLE TUBE**



- UL 50, 50E Listed; Type 4, 12, 13; File No. E27525
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E27525
- UL 508A Listed; Type 4, 12, 13; File No. E61997
- cUL Listed per CSA C22.2 No. 94; Type 4, 12, 13; File No. E61997
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## **CAST-X 4000 WITH EXPLOSION PROOF ATEX CERTIFIED ENCLOSURE DUAL TUBE (NB only the enclosure is rated the cast body is not)**



- ATEX Certified Explosion Proof
- UL Classified 9L44
- CSA Code LR 86146
- FM Cert: FM09ATEX0073U
- Class 1, Div. 1 & 2, Groups B, C, D
- Class 1, Zone 1 & 2, IIB + H2
- Class 2, Div. 1 & 2, Groups E, F, G, Class 3, Div. 1 & 2
- Enclosure Type 4X (Type 7, & 9 for UL)
- IEC Certified: Ex db IIC Gb, EX tb IIIC Db

## **CAST-X 4000 WITH EXPLOSION PROOF ATEX CERTIFIED ENCLOSURE SINGLE TUBE (NB only the enclosure is rated the cast body is not)**



- ATEX Certified Explosion Proof
- UL Classified 9L44
- CSA Code LR 86146
- FM Cert: FM09ATEX0073U
- Class 1, Div. 1 & 2, Groups B, C, D
- Class 1, Zone 1 & 2, IIB + H2
- Class 2, Div. 1 & 2, Groups E, F, G, Class 3, Div. 1 & 2
- Enclosure Type 4X (Type 7, & 9 for UL)
- IEC Certified: Ex db IIC Gb, EX tb IIIC Db

**Cast Aluminum Solutions supplies various Terminal housings with their circulation heaters but for explosive atmospheres there are two specific types**

**CONTINUED**



There is an Explosion proof type:



This housing has 4 entry point holes for cable glands to be fitted.

Glands are not supplied with the heaters as there are a variety of voltage & wattage options that will require different gauge wire.

Each entry hole is 1 inch NPT threaded.

The enclosure is certified as a Hazardous Location Terminal Enclosure.

CSA, US & Canadian marked.

Class 1, Divs. 1 & 2, Groups A, B, C, D. Class 2, Divs. 1 & 2, Groups E, F, G

Class 3, Divs. 1 & 2

The certifying body is "CSA" (Canadian Standards Association) (not ATEX and not NEMA 7)  
Very similar certifying standards, but the certifying body is CSA.

There is an ATEX rated type:



This housing has 2 entry point holes for cable glands to be fitted.

Glands are not supplied with the heaters as there are a variety of voltage & wattage options that will require different gauge wire.

Each entry hole is M20 x 1.5 threaded.

The enclosure is ATEX certified Explosion proof.

UL Classified 9L44. CSA Code LR 86146. FM Cert: FM09ATEX0073U

Class 1, Div. 1 & 2, Groups B, C, D. Class 1, Zone 1 & 2, IIB + H2

Class 2, Div. 1 & 2, Groups E, F, G, Class 3, Div. 1 & 2. Enclosure Type 4X (Type 7, & 9 for UL)

IEC Certified: Ex db IIC Gb, EX tb IIIC Db