

Dansk manual

Elma 708A

Symboler vist i instrumentdisplay eller vist i manualen



ADVARSEL for potentiel fare. Se brugermanual.



Vær opmærksom! Farlig spænding. Risiko for elektrisk stød.



Vær opmærksom! Varm overflade.



Bemærk! Udvis forsigtighed.



Godkendelses symbol. Instrumentet overholder godkendte direktiver. Instrumentet overholder EMV direktivet (2014/30EU). Standarder EN 61000-6-3:2007 og EN 61000-6-1:2700 er opfyldt. Instrumentet overholder lavspændingsdirektivet (2006/95EG). Standard EN61010-1:2010 er opfyldt.



ADVARSEL Brugermanualen indeholder information og referencer, som er nødvendig for korrekt brug og vedligeholdelse af instrumentet. Inden instrumentet tages i brug, er det vigtigt, at man læser denne brugermanual grundigt igennem. Hvis ikke brugermanualen læses igennem, eller, hvis man ikke følger advarselne, kan det resultere i både instrument- og personskaade.

1.0 Instrument/leveringsomfang

Elma 708A er et temperaturmåleinstrument med NTC sensor, for nem og hurtig måling af temperaturer.

Leveringsomfang

- 1 stk. Elma 708A
- 1 stk. batteri 3V, type: CR 2032.
- 1 stk. brugermanual på dansk & engelsk.
- 1 stk. beskyttelseshætte.

2.0 Sikkerhedsforanstaltninger



De respektive advarsler for elektrisk sikkerhed, skal på alle tidspunkter overholdes.



Målinger i nærheden af farlige elektriske installationer, må kun foretages sammen med en el teknisk specialist – og aldrig alene.



Hvis brugerens sikkerhed ikke længere er opfyldt, skal instrumentet fjernes fra brug, og beskyttes mod anvendelse.

Instrumentersikkerhed kan ikke længere garanteres:

- instrumentet viser synlige skade,
- ikke udfører de ønskede målinger,
- været opbevaret for længe under unormale forhold,
- været udsat for mekanisk stress under transporten.



Instrumentet må kun anvendes indenfor funktionsområderne beskrevet i de tekniske data.



Undgå direkte opvarmning af instrumentet fra direkte sollys for at sikre korrekt funktion og lang levetid for instrumentet.



Forsøg aldrig skille battericellerne ad! Batteriet indeholder meget batterisyre. Fare for lækage. Hvis batterisyre kommer i kontakt med hud eller tøj, rens da med vand med det samme. Hvis syren kommer i kontakt med øjnene, skyl øjnene med det samme med rent vand, eller kontakt en læge.



Forsøg aldrig at få kontakt mellem begge batteripoler, f.eks. ved hjælp af en ledningsforbindelse. Dette kan resultere i en kortslutning, som kan skabe ekstrem varme. Fare for brand og eksplosion.



Smid aldrig batterierne i åben ild, da dette kan skabe en eksplosion.



Batterier må ikke udsættes for fugtighed.



Ved udskiftning, eller opladning af batteri, sørg da altid for korrekt polaritet.



Brug kun batterier som beskrevet i tekniske data.

2.1 Korrekt anvendelse af Elma 708A

Elma 708A må kun anvendes til måling af temperaturer. Det er vigtigt, at man følger tidligere beskrevet sikkerhedsforanstaltninger, de tekniske data samt overholder de miljømæssige foranstaltninger. Ved reparation eller ændring i instrumentet, kan funktionssikkerheden ikke længere overholdes.

3.0 Transport og opbevaring

Behold altid original emballage for eventuelt senere transport, f.eks. kalibrering. Alle transportskader (ved f.eks. returnering/reparation) opstået på grund af forkert/for dårlig indpakning ophæver garantien. Skulle instrumentet dog blive udsat for batterilækage, skal det venligst sendes retur til Elma Instruments for rensning og kontrol. Elma 708A skal opbevares i tørre og lukkede miljøer. Hvis instrumentet tilfældigvis transporteret under ekstreme

forhold, skal det ligge i ca. 2 timer i normale forhold, for at kunne bruges normalt igen.

4.0 Udførelse af målinger med Elma 708A



Inden man foretager sin temperaturmåling, er det vigtigt at man sikrer sig at materialet man måler i/på ikke bevæger sig. Overholder man ikke dette, kan det give person, eller instrumentskade.



De specificerede temperaturområder, skal til alle tider overholdes.

For at kunne opretholde de mest præcise målinger, skal følgende punkter være overholdt:

- For målinger af væsker, korn, pasta e.l. og faste materialer, må indstikningsdybden maks. være 30mm.
- Tænd instrumentet på "ON/OFF" knappen.
- Bring instrumentet i kontakt med det ønskede målte objekt.



Hold funktionen skal stå i "OFF"

- Vent indtil en fast værdi vises på displayet. Vær opmærksom på at tiden for at opnå den aktuelle måletemperatur afhænger af hver individuel applikation (op til ca. 30 sek.).



Over/under skala, vises som "OL" eller "-OL".

- Den viste værdi kan gemmes ved tryk på "HOLD" knappen. Displayet viser "H".

5.0 Vedligeholdelse

Hvis man anvender instrument i henhold til denne vejledning, vil der ikke være nogen speciel form for vedligeholdelse. Skulle der opstår problemer, under daglig anvendelse, kontakt da Elma Instruments A/S.

5.1 Rengøring

Hvis instrumentet efter daglig brug er blevet beskidt, kan det anbefales, at man renser det med en fugtig klud, og evt. et mildt rengøringsmiddel.



Inden rengøring skal instrumentet slukkes.



Brug aldrig opløsningsmidler, eller andre "farlige" midler til at rengøre instrumentet med.



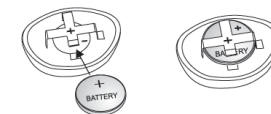
Når instrumentet er blevet rengjort, må det ikke anvendes, før det er fuldstændigt tørt.

5.2 Udskiftning af batterier

Hvis ikke instrumentet kan tændes, eller hvis displayvisningen er dårlig efter tænd af instrument, skal batterierne skiftes ud.



Referencerne vedr. batteriudskiftning beskrevet i afsnittet "sikkerhedsforanstaltninger", skal altid overholdes. Brug kun batterier af typer beskrevet i de tekniske data.



- Løft forsigtigt den øverste del af dækslet. (Displayet skal "løftes")
- Fjern det brugte batteri.
- Isæt nyt batteri.
- Sæt dækslet på plads igen.

Sørg for at smide batterierne ud miljømæssig korrekt. Smid dem aldrig ud sammen med almindeligt husholdningsaffald. Batterierne skal smides ud i en container for sig selv.

6.0 Tekniske data

(ved 23°C ± 5°C, <70% relativ fugtighed)
Display: LCD, 3½ digit med symbol for enhed og "HOLD"-funktion.
"Overload" display: "OL", eller "-OL".
Område: -40 til +250°C.

Område	Opløsning	Nøjagtighed
-40...-20°C	0,1°C	± 3°C
-19,9...+180°C	0,1°C	± 1°C
+180,1...+230°C	0,1°C	± 1,5°C
+230,1...+250°C	0,1°C	± 3°C

Temperaturændringer
/responstid: > 5 K/s
Arbejdstemperatur: -10°C..+50°C/ved maks. 80% RH
Opbv. temperatur: -20°C...+60°C/30..75% RH
Strømforsyning: 1 stk. 3V CR2032
Batterilevetid: ca. 200t
Størrelse: ca. 50 x 30 x 160mm
Vægt: ca. 16g inkl. 1 3 V, CR 2032 batteri
Beskyttelsesgrad: IP 67
Højde: op til 2000m

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UK manual

Elma 708A


References marked on instrument or in instruction manual


 Warning of a potential danger comply with instruction manual.

 Caution! Dangerous voltage. Danger of electrical shock.

 Caution, hot surface.

 Reference. Please use utmost attention.

 Conformity symbol, the instrument complies with the valid directives. It complies with the EMV Directive (2014/30/EU), Standards EN 61000-6-3:2007 and EN 61000-6-1:2007 are fulfilled. It also complies with the Low Voltage Directive (2006/95/EG), Standard EN 61010-1:2010 is fulfilled.

 The instruction manual contains information and references, necessary for safe operation and maintenance of the instrument. Prior to using the instrument (commissioning / assembly) the user is kindly requested to thoroughly read the instruction manual and comply with it in all sections. Failure to read the instruction manual or to comply with the warnings and references contained herein can result in serious bodily injury or instrument damage.


1.0 Introduction/scope of supply


HDT 6203 is a temperature measurement instrument with NTC-Sensor for simple and quick measurement of temperatures.


Scope of supply:

1 pc Elma 708A
1 pc battery 3 V, CR 2032
1 pc Instruction Manual
1 pc Protective sleeve


2.0 Safety Measures


 The respective accident prevention regulations established by the professional associations for electrical systems and equipment must be strictly met at all times.


 Measurements in dangerous proximity of electrical installations are only to be executed when instructed by a responsible electrical specialist, and never alone.


 If the operator's safety is no longer ensured, the instrument is to be put out of service and protected against use. The safety is no longer insured, if the instrument:


- shows obvious damage
- does not carry out the desired measurements
- has been stored for too long under unfavorable conditions
- has been subjected to mechanical stress during transport.


 The instrument may only be used within the operating ranges as specified in the technical data section.


 Avoid any heating up of the instrument by direct sunlight to ensure perfect functioning and long instrument life.


 Never try to disassemble battery cells! The battery contains highly alkaline electrolyte. Danger of cauterization! If electrolyte gets in contact with skin or clothing, rinse immediately with water. If electrolyte gets in contact with the eyes, immediately flush by using pure water and consult a doctor.


 Never try to make contact between both battery cell poles, for example by using a wire connection. The resulting short-circuit current is very high and causes extreme heat. Danger of fire and explosion!

 Never throw battery cells into a fire as this could cause an explosion.

 Never expose batteries or accumulators to humidity.

 When replacing or changing the battery, make certain of correct polarity.

 At swallowing up of coin cells (for ex. infants) consult a doctor.

 Only use batteries as described in the technical data section.

2.1 Appropriate Usage


The instrument may only be used under those conditions and for those purposes for which it was conceived. For this reason, in particular the safety references, the technical data including environmental conditions and the usage in dry environments must be followed. When modifying or changing the instrument, the operational safety is no longer ensured.


3.0 Transport and Storage


Please keep the original packaging for later transport, e.g. for calibration.


Any transport damage due to faulty packaging will be excluded from warranty claims. However, should the instrument be contaminated by leaking battery cells, you are kindly requested to return it to the factory for cleaning and inspection. Instruments must be stored in dry and closed areas. In the case of an instrument being transported in extreme temperatures, a recovery time of minimum 2 hours is required prior to instrument operation.

4.0 Carrying out measurement


 Prior to any temperature measurement it must be ensured, that the surface to be measured is not live. Failure to comply with this prescription can lead to serious operator injury or instrument damage.


 Imperatively respect specified temperature sensor measurement ranges.

 The temperature sensor may only be touched at handles provided. Any contact with metal parts has to be imperatively avoided.

 In order to avoid burns, the UUT may only be touched via measurement probe. In order to obtain the most accurate results the following points must be observed:

- For measurement of liquid, paste or solid material, the insertion depth of the sensor must be approx. 30 mm.
- Switch "on" instrument with key ON/OFF
- Bring the object to be measured into contact with the temperature sensor.

 The HOLD-function has to be switched "off".
→ Wait until a steady value is displayed. Please note that the time required to obtain the actual measurement value depends upon each individual application (up to 30 seconds).


 Over- and underload is displayed as „OL“ or „-OL“ .
→ The value displayed can be stored by use of the „HOLD“ button. The display shows „H“.

5.0 Maintenance


When using the instrument in compliance with the instruction manual, no special maintenance is required. Should operational problems occur during daily use, our consulting service will be at your disposal, free of charge.

5.1 Cleaning

If the instrument is dirty after daily usage, it is advised to clean it by using a humid cloth and a mild household detergent


 Prior to cleaning, ensure that instrument is switched off

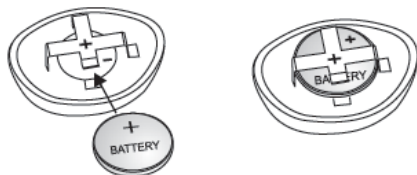
 Never use acid detergents or dissolvent for cleaning.

 After cleaning do not use the instrument until it is dried completely.


5.2 Replacement of batteries


If you can't switch on the instrument or if the display (segments) is low after switch on the instrument the batteries must be changed

 The references described in section 2 regarding the handling of batteries must be met! Only use batteries as described in the technical data section!



→ Careful lift the upper-case cover. (the display must be "lifted")
→ Remove the discharged batteries.
→ Insert new batteries.
→ Replace the upper-case cover.

 Please consider your environment when you dispose of your one-way batteries or accumulators. They belong in a rubbish dump for hazardous waste. In most cases, the batteries can be returned to their point of sale.

 Please, comply with the respective valid regulation regarding the return, recycling and disposal of used batteries and accumulators.

6.0 Technical Data

(for 23 °C ± 5 °C, < 70 % rel. humidity).

Display: LCD, 31/2 digit, with symbols for units and HOLD-function

Overload display: „OL“ is displayed or „-OL“ for underrun of measurement range
-40 to +250°C

Range:	Resolution	Accuracy:
-40...-20°	C 0.1°C	± 3°C
-20.1...+180°C	0.1°C	± 1°C
+180.1...+230°C	0.1°C	± 1.5°C
+230.1...+250°C	0.1°C	± 3°C

Temperature change/

response time: > 5 K/s

Working temperature: -10°C ..+50°C / at max. 80% rel. humid.

Storing temperature: -20°C ...+60°C / 30 ... 75% RH

Power supply: 1 pc. 3 V CR 2032

Battery live: approx. 200 h

Dimensions: approx. 50 x 30 x 160 mm

Weight: approx. 16 g incl. batteries

Protection degree: IP 67

Hight above MSL: up to 2000 m

Warranty

instruments are subject to strict quality control. However, should the instrument function improperly during daily use, you are protected by our 12 months warranty (valid only with invoice). We will repair free of charge any defects in workmanship or material, provided the instrument is returned unopened and untampered with, i.e. with undamaged warranty label. Any damage due to dropping or incorrect handling are not covered by the warranty. If the instrument shows failure following expiration of warranty, our service department can offer you a quick and economical repair. Subject to technical changes without notice.

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