



## CONVECTIVE HEAT FLOW



Non-Contact Temperature Measurement  
without Optics

### **BELT & FOIL TEMPERATURE MEASUREMENT**

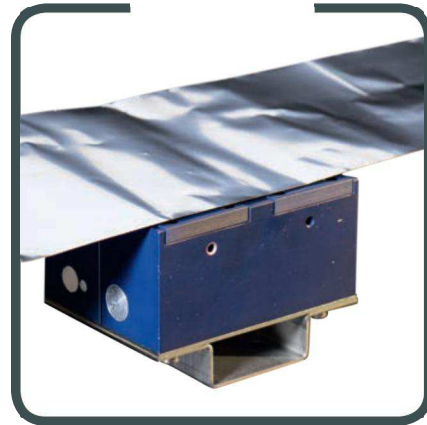
LUNE-CHF  
FLATTEMP (FLT)

[www.lune-chf.com](http://www.lune-chf.com)

# FLATTEMP (FLT)

## BELT & FOIL TEMPERATURE MEASUREMENT

- Non-contact and precise temperature measurement in a temperature range from 10° to 300°C (50° to 572°F); 400°C (752°F) on request; at belts, foils and plane surfaces using the Convective Heat Flow principle (without optics). The temperature measurement on rolls and other cylindrical objects can be effected via adapters according to their radius.
- The measurement is independent of influencing factors like colour, emission, speed, material, surface structure and varying distances between sensor head and object.
- The double head design allows auto calibration of the system. The measurement system is maintenance-free.



### 1. SENSOR HEAD

Model number / version

CHH7301-FLT-X1-X2          2 long sensors

X1 = LV = heating cartridge voltage of 120 VAC, without code = 230 VAC (standard)  
X2 = HT = temperature measurement range up to 400°C (752°F) (on request)

#### 1.1 INTERCONNECTION CABLE

- ICC300          Interconnection cable between electronics and sensor head  
Standard cable length 3 m (9.8 ft)
- IPC500          Interpanel cable between EPC-1 electronics and EPC-2 panel-PC  
Standard cable length 5 m (16.4 ft)

#### 1.2 TECHNICAL DATA\*

##### SENSOR HEAD

Measurement range:	10° to 300° C (50° to 572°F)
Application range:	flat belts and foils
Head gap width:	1.0 to 3.0 mm (0.039" to 0.12")
Power supply:	230 VAC (standard) or 120 VAC (LV code) from electronics via ICC cable
Power input:	300 VA max. for 5 min, usually approx. 40 VA depending on sensor head temperature

\* weitere Technische Daten finden Sie im Benutzerhandbuch

## 2. LUXTRON AND IRCON SENSOR HEADS

Existing Luxtron and Ircon heads can be connected to the new lüne-CHF electronics. In some cases a new ICC cable with adapter will be required. In addition, lüne GmbH offers a repair and calibration service for all CHF heads manufactured by Luxtron and Ircon.

## 3. ELECTRONICS

The electronics is available in following versions:

- ❶ CHE8000-EIP          Portable electronics - (remote electronics with integrated panel PC)
- ❷ CHE8000-EPC-1      Remote electronics
- ❸ CHE8000-EPC-2      Panel-PC

### 3.1 ASSEMBLY TYPES / NETWORK CONNECTION

Electronics versions CHE8000-	TT	PM	SM	DIN	19"	LAN
EIP	✓	optional	N. A.	N. A.	optional	optional
EPC-1	N. A.	optional	✓	✓	optional	N. A.
EPC-2	✓	optional	optional	optional	optional	optional

(The panel PC EPC-2 is not mandatory for the operation of the measurement system)

- ✓ = Standard
- TT = tabletop unit with folding feet or rubber feet (tabletop)
- PM = mounting in control panel cut-out (panel mount)
- SM = mounting on control panel or rear panel (surface mount)
- DIN = mounting on DIN C-rail
- 19" = mounting in 19" rack
- LAN = network connection



2 CHE8000-EPC-1



1 CHE8000-EIP



3 CHE8000-EPC-2

### 4. TECHNICAL DATA\*

#### ELECTRONICS

<b>Display:</b>	7" TFT colour display with resistive touch panel (only models EIP and EPC-2)
<b>Accuracy:</b>	+/- 0,50% of full scale
<b>Repeatability:</b>	+/- 0,25% of full scale
<b>Resolution:</b>	+/- 1° C (°F)
<b>Time constant:</b>	< 1 sec
<b>Output:</b>	0/4 - 20 mA, 0 - 10 VDC, -5 to +5 VDC (temperature difference)
<b>Interfaces:</b>	RS422; USB 2.0; optional LAN via panel PC
<b>Temperature:</b>	0° - 45° C (32° - 113°F)
<b>Power supply:</b>	110 VAC / 230 VAC; 50 / 60 Hz; range 85 - 264 VAC, 47 - 63 Hz
<b>Power input:</b>	approx. 15 W

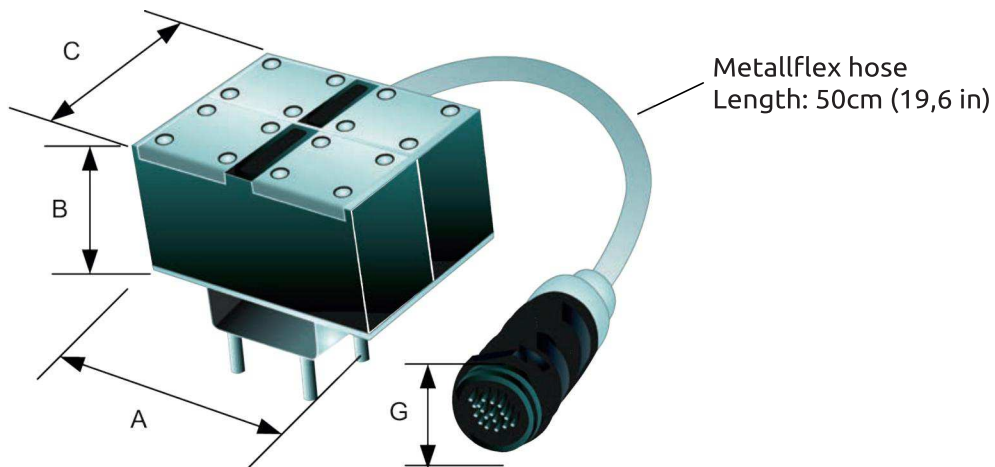
\* For further technical details pls. refer to the operating manual

## 5. Dimensions

### Heads CHH7301-FLT

#### Dimension / weight

Dimensions head in mm (in)

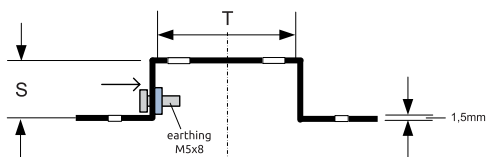


Model	A	B	C	G
CHH7301-FLT	102,0	52,6	76,9	47,1
	(4,01")	(2,07")	(3,02")	(1,85")

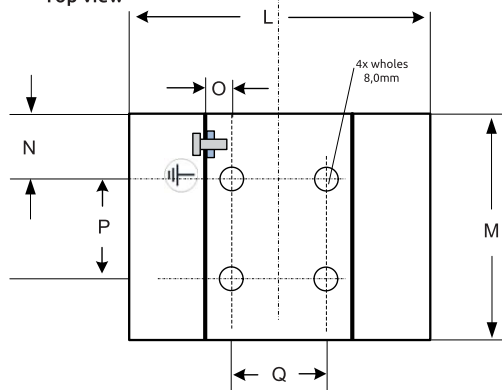
Dimensions in mm; (inch)  
Weight: 1,8kg; (3,96 lbs)

Dimensions mounting bracket head in mm (in)

Side view



Top view



Model	L	M	N	O	P	Q	S	T
CHH7301-FLT	102,0	76,8	22,8	9,0	31,0	33,0	20,0	48,0
	(4,02")	(3,02")	(0,90")	(0,35")	(1,22")	(1,30")	(0,78")	(1,89")