



CONVECTIVE HEAT FLOW



Non-Contact Temperature Measurement
without Optics

TEMPERATURE MEASUREMENT OF TEXTILE FIBRES AND OPTICAL FIBRES

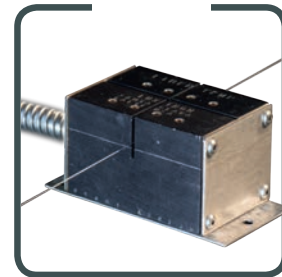
LUNE-CHF
FIBERTEMP SH (FTTSH/FTOSH)

www.lune-chf.com

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TEMPERATURE MEASUREMENT OF TEXTILE FIBRES AND OPTICAL FIBRES

- The FIBRETEMP SH allows temperature measurement in a temperature range from 10° to 300°C (50° to 572°F) at synthetic fibres (sensor head FTTSH) and optical fibres (sensor head FTOSH) using the Convective Heat Flow principle (without optics). The measurement of textile fibres is effected via ceramic guides, the measurement of optical fibres is effected contact-less via an open measurement gap.
- The measurement is independent of influencing factors like colour, emission, speed, material, and surface structure.
- Both sensor head models are slotted and can be exchanged without interruption. Due to their very small dimensions they are suitable even for use in tight spaces.
- The double head design allows auto calibration of the system. The measurement system is maintenance-free.



1. SENSOR HEADS

Model numbers / versions

- CHH7710-FTTSH-X1 10 to 20000 denier (0,0029" to 0,039"), 2 sensors, slotted sensor head
- CHH7720-FTOSH-X1 125 µm to 500 µm (0.0049" to 0.196"), 4 sensors, slotted sensor head

X1 = LV = heating cartridge voltage of 120 VAC, without code = 230 VAC (standard)

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)
Head speed:	fibres max. 6000 m/min (19685 ft/min)
Head speed:	fibre optic cables max. 1500 m/min (4900 ft/min)
Power supply:	230 VAC (standard) or 120 VAC (LV code) from electronics via ICC cable
Power input FTTSH:	150 VA max. for 5 min, usually approx. 20 VA depending on sensor head temperature
Power input FTOSH:	300 VA max. for 5 min, usually approx. 40 VA depending on sensor head temperature

* for further technical details pls. refer to the operating manual

2. LUXTRON AND IRCON SENSOR HEADS

Existing Luxtron and Ircon heads can be connected to the new lune-CHF electronics. In some cases a new ICC cable with adapter will be required. In addition, lune 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:

- ① CHE8000-EIP Portable electronics - (remote electronics with integrated panel PC)
- ② CHE8000-EPC-1 Remote electronics
- ③ 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

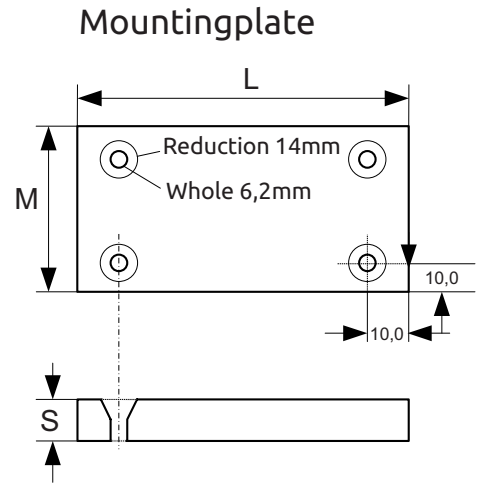
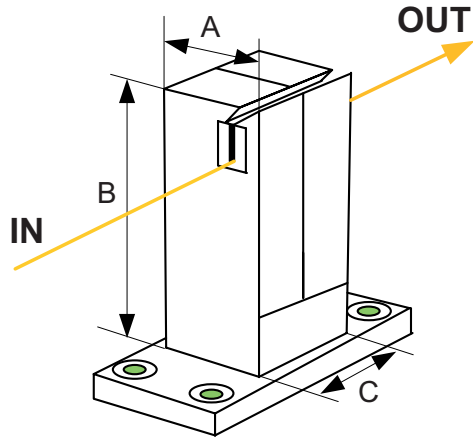
Display:	7" TFT colour display with resistive touch panel (only models EIP and EPC-2)
Accuracy:	+/- 0,50% of full scale
Repeatability:	+/- 0,25% of full scale
Resolution:	+/- 1° C (°F)
Time constant:	< 1 sec
Output:	0/4 - 20 mA, 0 - 10 VDC, -5 to +5 VDC (temperature difference)
Interfaces:	RS422; USB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

* for further technical details pls. refer to the operating manual

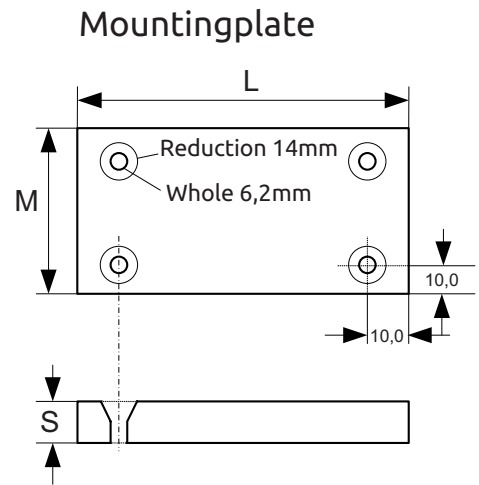
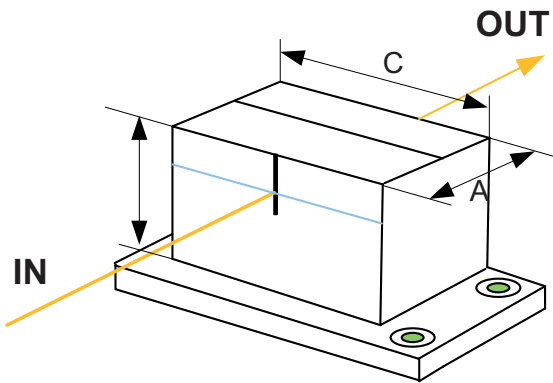
5. Dimensions

Heads FIBERTEMP CHH77X0-FTXSH slotted
Dimensions / Weight

Dimensions head FIBERTEMP FTTSH for Textile Fiber in mm (in)



Dimensions head FIBERTEMP FTOSH for Optical Fiber in mm (in)



Modelle	A	B	C	L	M	S
CHH7710-FTTSH	35,0 (1,37")	82,5 (3,24")	45,0 (1,77")	100,0 (3,93")	45,0 (1,77")	8,0 (0,31")
CHH7720-FTOSH	53,0 (2,08")	43,0 (1,69")	80,0 (3,14")	136,0 (5,35")	63,0 (2,48")	8,0 (0,31")

All dimensions in mm; (inch)
Weight FTTSH: 0,9 kg; (1,98 lbs)
Weight FTOSH: 1,0 kg; (2.20 lbs)