→ Infrared validation test equipment

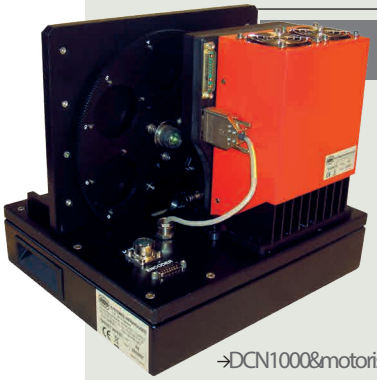
DCN1000N/H series

ABSOLUTE AND DIFFERENTIAL TEMPERATURE BLACKBODIES

THE MOST ACCURATE LOW TEMPERATURE BLACKBODIES

The DCN1000N/H extended area blackbodies are low temperature infrared reference sources operating either in absolute or differential mode. Featuring the highest available stability of regulation, they are particularly well adapted for the characterization and performance validation of a very wide range of IR sensors, such as high resolution cameras for thermography, and long range thermal imagers.
They consist of an emissive head of various sizes whose temperature is accurately controlled via a **2U electronic unit** through an ergonomic interface. The temperature of the high emissive surface is stabilised within **0.5mk** at temperatures above and below ambient temperature. Just as any other HGH blackbody, the DCN1000N/H family are provided with a radiometric certificate of calibration demonstrating the reliability of this IR reference source for two years.

Targets can be added, as well as the INFRATEST software, thanks to which a wide range of tests can be automated: NETD, temporal noise, fixed pattern noise, MTF, FoV, distortion, spatial resolution, MRTD, TOD, etc.



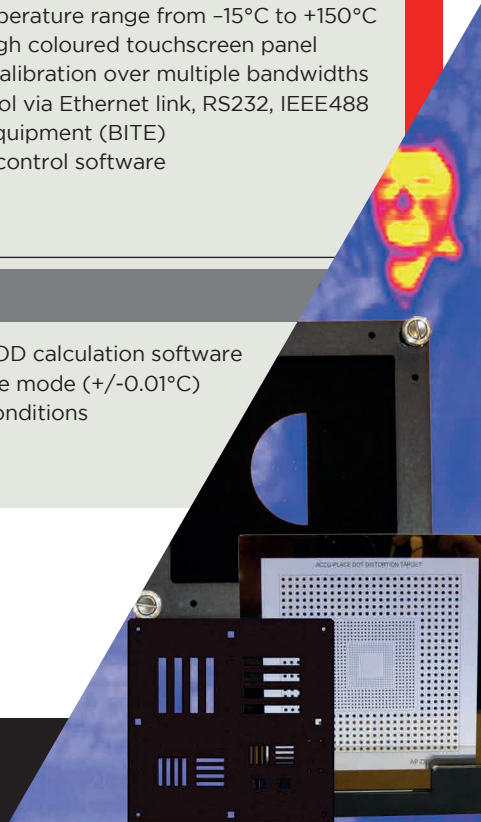
→DCN1000&motorisedtargetwheel

BENEFITS

- Extended areas up to 300 mm x 300 mm
- Differential and absolute modes operation
- Real time display of temperature data
- Intuitive interface
- The highest stability: **< 0.5mk**
- High thermal uniformity and emissivity
- Uniformity map provided with each Blackbody
- Silent operation
- Compact emissive head
- Absolute temperature range from –15°C to +150°C
- Control through coloured touchscreen panel
- Radiometric calibration over multiple bandwidths
- Remote control via Ethernet link, RS232, IEEE488
- Built-in test equipment (BITE)
- Infratest - LT control software

OPTIONS

- **Double emissive head control option**
- Higher maximum temperature
- Motorised target wheel and multiple accessories
- Targets for NETD, LSF/MTF, MRTD, distortion, etc.
- NETD, LSF/MTF, MRTD and TOD calculation software
- Enhanced accuracy of absolute mode (+/-0.01°C)
- Climatic chamber operating conditions
- Enhanced emissivity (>0.99)



NATIONAL INSTRUMENTS LabVIEW

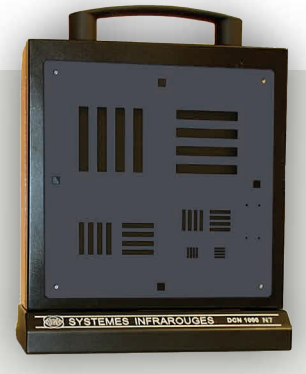
OPTIONS

- LabVIEW drivers for all communication interfaces
- Anti-condensation and frost system

ref: DCNN-Len-akl DCN1000N/H series

DCN1000N/H series

ABSOLUTE AND DIFFERENTIAL TEMPERATURE **BLACKBODIES**



→DCN1000N7andMRTDtarget

→ DCN1000 H4 and targets

→DCN1000-collimatorreferencesource

TECHNICAL DATA

	DCN1000 H2	DCN1000 H4	DCN1000 N7	DCN1000 N12
Emissive area	50 mm x 50 mm	100 mm x 100 mm	180 mm x 180 mm	300 mm x 300 mm
Temperature range • Absolute (20°C ambient temp) • Differential	-15°C to +150°C (option: -15°C to + 200°C) -35°C to +130°C	-15°C to +150°C (option: -15°C to + 200°C) -35°C to +130°C	-5°C to +150°C (option: -5°C to +180°C) -25°C to +130°C	-5°C to +150°C -25°C to +130°C
Thermal uniformity at ambient ±5 °C / at 50 °C	0.01°C/ 0.1°C		0.01°C/ 0.2°C	
Emissivity / Apparent emissivity after calibration	0.98 ± 0.02 / 1.00 (option: 0.99 ± 0.01 / 1.00)			
Stability	**0.5 mK over [0;65°C] , 2mK outside**			
Temperature measurement accuracy	Differential mode : ±0.01°C absolute mode : ±0.03°C			
Display resolution	0.0001°C (actual temperature and set point display)			
Stabilization time @ 2mk	30 seconds			
Slew rate	>0.5°C/s heating ; >0.25°C/s cooling		>0.5°C/s heating ; >0.2°C/s cooling	
Remote control	Ethernet, RS232 and IEEE488 interface			
Power supply	90/260 VAC, 1 ph., 50/60 Hz			
Operating ambient temperature	Control unit: + 5°C to +45°C - Head: -20°C to +70°C (-55°C to +85°C in option)			
Max. power consumption	800 W		1600 W	
Head dimensions W x H x D	115x198x111 mm^3	192x215x120 mm^3	235x257x202 mm^3	355x377x201 mm^3
Head weight	2 kg	5 kg	12.5 kg	27 kg
Electronic unit size	**2U x 19"**			
Electronic unit weight	6.5kg		8.5kg	
Double head option	YES		NO	

Above information is subject to change without notice

www.hgh-infrared-usa.com

Headquarters
HGH SYSTEMES INFRAROUGES
10 rue Maryse Bastié
91430 Igny, France
Phone: +33 1 69 35 47 70
Fax: +33 1 69 35 47 80
Email: sales@hgh.fr

US Office - HGH USA
Formerly Electro Optical Industries
320 Storke Rd., Ste. 100
Goleta, CA 93117, USA
Phone: 805.964.6701
Fax: 805.967.8590
Email: sales@electro-optical.com

Asia Office
ASIA INFRARED SYSTEMS
541 Orchard Rd.,
#09-01 Liat Towers
Singapore 238881
Phone: +65 6933 1394
Email: sales@hgh-infrared.com