LUMASENSE®
TECHNOLOGIES

IMPAC Infrared Temperature Sensors

Stationary, digital pyrometers for non-contact temperature measurement with video sighting for the optical alignment to the measuring object

IS 6-TV Advanced • IGA 6-TV Advanced • IGA 6/23-TV Advanced
ISR 6-TV Advanced • IGAR 6-TV Advanced
(Addendum to Datasheets IS 6 Advanced, IGA 6 Advanced, IGA 6/23 Advanced, ISR 6 Advanced, and IGAR 6 Advanced)

• Integrated color camera module for sighting

• Optical alignment to the measuring object using a monitor or via InfraWin software with an external video grabber

• Video output galvanically isolated from power supply, analog output, and digital interface

• Display image details including: current temperature reading, date/time, user text, one selectable parameter

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The Series 6-TV Advanced pyrometers are digital, compact, and fast pyrometers for non-contact temperature measurement.

With a color camera module, the optical alignment to the measuring object can be achieved with a monitor or using the software InfraWin 5 in conjunction with an external video grabber (see accessories).

The video output of the pyrometers can be directly connected to the video input of the monitor or video grabber. The inserted circular target marker allows an exact alignment to the measuring object.

TYPICAL APPLICATIONS

• Metal Processing
• Steel Making
• Glass Industry
• Cement Industry
• Solar Industry

TECHNICAL DATA
(different from IS 6 Advanced, IGA 6 Advanced, IGA 6/23 Advanced, ISR 6 Advanced, and IGAR 6 Advanced)
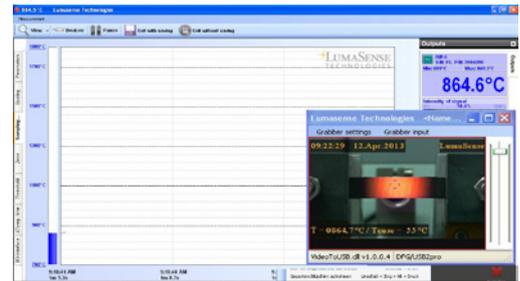
Video-Signal:	FBAS-Signal approximately 1 VSS at 75 Ohms, PAL (B), 50 Hz, CCIR656
Date/Time:	Real time clock with about 14 days buffer (GoldCap)
Connection of Video-Signal:	Separate triaxial socket to support double shielded signal transmission (at pyrometer), CINCH or BNC connector (on user side)
Operating ambient temperature:	0 to 60 °C on the housing
Field of view:	About 11.6% x 8.4% of the adjusted measuring distance
Superimposed text elements:	Circular target marker, user text, time, date, measured temperature
	Additional: device temperature or distance or serial number or intensity (only ISR)
Resolution:	768 x 576 pixel video chip
	768 x 520 pixel displayed on screen
Brightness control:	Automatic or manual (via software)

Example video image

InfraWin 5 with integrated video image

Optics

The Series 6 Pyrometers can be manually adjusted at all distances between 210 mm and 5000 mm and the focus distance of the visual camera equals the focus distance of the infrared detector. The size of the target marking circle displayed in the video image equals the spot size of the pyrometer at the set measuring distance. For spot sizes, please refer to the datasheet for the associated Series 6 base instrument (IS 6 Advanced, IGA 6 Advanced, IGA 6/23 Advanced, ISR 6 Advanced, or IGAR 6 Advanced).

Reference Numbers

Type	Temperature Range	Reference Number
IS 6-TV Advanced (PAL / RS485)	600 to 1800 °C (MB 18) 600 to 3000 °C (MB 30)	3 914 570 3 914 530
IGA 6-TV Advanced (PAL / RS485)	250 to 1800 °C (MB 18) 250 to 2500 °C (MB 25)	3 914 070 3 914 030
IGA 6/23-TV Advanced (PAL / RS485)	50 to 1000 °C (MB 10) 75 to 1300 °C (MB 13) 150 to 1800 °C (MB 18)	3 914 230 3 914 270 3 914 310
ISR 6-TV Advanced (PAL / RS485)	600 to 1400 °C (MB 14) 700 to 1800 °C (MB 18) 800 to 2500 °C (MB 25) 1000 to 3000 °C (MB 30)	3 904 030 3 904 090 3 904 160 3 904 230
IGAR 6-TV Advanced (PAL / RS485)	100 to 2000 °C (MB 20)	3 914 720

Scope of delivery:
Pyrometer with PC software InfraWin for adjustment and evaluation, Works Certificate, and Manual

Ordering note:
Connection and video cables are not included in the scope of delivery and must be ordered separately.

Accessories - Video Related

3 920 600   Video cable BNC, 5 m long*
3 920 610   Video cable BNC, 10 m long*
3 920 620   Video cable BNC, 15 m long*
3 920 630   Video cable BNC, 20 m long*
3 920 640   Video cable BNC, 25 m long*
3 920 650   Video cable BNC, 30 m long*
3 920 660   Video cable BNC, 40 m long*

*All video cables include an adapter BNC-socket to RCA male (CINCH)

3 920 670   Video cable BNC, 45 m long*
3 920 680   Video cable BNC, 60 m long*
3 920 690   Video cable BNC, 100 m long*
3 826 740   Passive Video Baluns with BNC connectors for transmitting video signals over standard inexpensive patch cable (eg CAT5 cable). Maximum cable length: 300 m with color video.
3 826 730   Video grabber (converts analog TV to USB)

Accessories - Other

3 820 330   Connection cable, 5 m, straight connector**
3 820 500   Connection cable, 10 m, straight connector**
3 820 510   Connection cable, 15 m, straight connector**
3 820 810   Connection cable, 20 m, straight connector**
3 820 820   Connection cable, 25 m, straight connector**
3 820 520   Connection cable, 30 m, straight connector**
3 820 340   Connection cable, 5 m, 90° connector**
3 820 530   Connection cable, 10 m, 90° connector**
3 820 540   Connection cable, 15 m, 90° connector**
3 820 830   Connection cable, 20 m, 90° connector**
3 820 840   Connection cable, 25 m, 90° connector**
3 820 550   Connection cable, 30 m, 90° connector**
3 852 290   Power supply NG DC for DIN rail mounting; 100 to 240 V AC $\Rightarrow$ 24 V DC, 1 A
3 852 550   Power supply NG 2D for DIN rail mounting; 85 to 265 V AC $\Rightarrow$ 24 V DC, 600 mA with 2 settable limit switches
3 826 720   USB to RS485 adapter cable, 1.8 m long

3 826 510   PI 6000: PID programmable controller
3 890 640   DA 4000-N: LED digital display to be built into the switchboard
3 890 650   DA 4000: like the DA 4000-N, but additionally with 2 limit switches
3 890 570   DA 6000-N digital display, to allow adjustment of Pyrometer through RS485 interface
3 890 530   DA 6000: like the DA 6000-N, but with analog input and 2 limit switches for the RS485 interface.
3 890 630   iLD24-UTP; large digital indicator, 57 mm height of digits
3 834 210   Adjustable mounting support
3 846 260   Mounting support
3 846 290   Mounting support with fused silica window
3 835 160   Air purge unit, aluminium
3 835 590   90° mirror for Series 5, quartz glass window
3 837 530   Water cooling jacket (heavy duty) with integrated air purge unit for Series 6 with video
3 837 540   Cooling plate for Series 5 and 6, with air purge
3 846 590   Vacuum flange KF16 with quartz glass window

**All connection cables include a short adapter cable with a 9-pin SUB-D connector. This connector may be used in combination with the RS485 to USB adapter.