

DA 6000

The LED indicator for analog and digital Infratherm pyrometers

- **Temperature display**
5 digit 7 segment LED
- **Mode display**
4 digit alphanumeric LED
- **Analog-interfaces**
0/4 ... 20 mA input and output
- **Digital-interface**
RS 232 or RS 485 (half-duplex, addressable)
- **with analog pyrometer**
Adjustable low-pass filter
Maximum storage (2 ms)
Range zooming for the analog output
Data recording with InfraWin
Pilot light supply for IS 300; IGA 300
- **with digital pyrometer**
Read and change all pyrometer
parameters without PC



Infratherm DA 6000 is a high-precision LED indicator for Infratherm non-contact temperature measuring devices with excellent additional properties.

Beyond pure indication of measured temperature you can parametrize a connected IMPAC digital pyrometer via the DA 6000 completely, without any PC.

DA 6000 can also digitize the current signal of a connected analog pyrometer and apply some post-processing algorithms like low-pass filtering or max/min storage. The analog output signal can be "zoomed" to a subrange of the pyrometer's temperature range.

Additionally, there are 2 alarm switches available.

Or you use the digital interface to transfer data to a PC (InfraWin software is included) or to another digital system.

Analog input and output (0/4...20 mA each) can be defined independently from each other. So the conversion from 4...20 mA into 0...20 mA is possible.

The digital interface of DA 6000 may be RS232 or on request RS485 (half-duplex, addressable).

RS485 is interesting especially if used with large cable lengths. In this case the digital counterpart (pyrometer or computer) of course has to be equipped with RS485, too.



→ The supply voltage for DA 6000 may be either 85...265 V AC or 18...30 V DC. So it can be used all over the world.

DA 6000

- Temperature display:** 5 digit 7 segment-LED, 13 mm, red
- Operating mode indication:** 4-digit LED matrix, 5 mm, red
- Measurement range:** -100.0°C...3200°C (-148.0°F...5792°F)
- Power supply:** 85...265 V AC, 48...62 Hz or 18...30 V DC, ripple max 0.5 V_{pp}
- Power consumption:** Approx. 7 VA (without external devices connected)
- Analog input [aMes]:** (mode [aMes] only) 0/4...20 mA input, galvanically separated, auxiliary power supply for 2-wire pyrometers: 24 V; input resistance: 20 Ω Galvanically separated, 0/4...20 mA active output, load max 500 Ω, restriction to a partial measurement range can be chosen freely
- Analog output:** Galvanically separated, RS232 or RS485 (option) half duplex, addressable, baud rate 1.2 to 38.4 kBd, for communication with a digital pyrometer [dMes], or with a computer [aMes]
- Digital interface:** Galvanically separated, RS232 or RS485 (option) half duplex, addressable, baud rate 1.2 to 38.4 kBd, for communication with a digital pyrometer [dMes], or with a computer [aMes]
- Alarm outputs:** 2 relays outputs (switchable), 6 A, 400 V AC, 300 V DC, max 1500 W. optionally semiconductor relays 3 A, 60 V AC/DC (on request)
- Pilot light supply** switchable 5 V DC output, max 50 mA (e.g. for pilot light IS 300 or IGA 300)
- Reset input:** To reset the stored maximum value with an external signal (TTL level or external contact)
- Accuracy:** 0.1% of measurement range for analog input and output
- Repeatability:** 0.05% of measurement range
- Operating ambient temp.:** 0...50°C on the housing
- Storage temperature:** -20...70°C
- Weight:** approx. 350 g
- Enclosure rating:** Front panel IP 40, otherwise IP 20 (DIN 40 050)
- Display resolution:** 0.1°C for temp. values up to 999.9°C, 1°C for temps. above (0.2°F up to 1831.8°F, 1°F above)
- Housing:** Plastic housing (flame retardant Noryl), 48 x 96 x 141 mm (DIN 43 700), front panel fixed with screw clips
- Front panel cut-out:** 45^{+0.6} x 92^{+0.8} mm
- Mounting depth required:** ≥ 165 mm with clips and cable
- Connector type:** Plug-in clips, clamping area 0.13 to 2.5 mm² (AWG 28 to 16) with conductor end tubes 0.5 to 1.5 mm²
- Operating mode analog measurement [aMes]:** Measuring rate: 1 ms
 response time: 1, 10, 50, 250 ms, 1, 3, 10 s (adjustable)
 Maximum Value storage adjustable: OFF, 10, 50, 250 ms, 1, 5, 25 s, external, auto; t₉₀ = 2 ms
 Analog output refresh time: 1 ms
 Display refresh time: 300 ms or immediately (< 30 ms) at changes > 5°C
 2 alarm contacts with hysteresis (adjustable within the measuring range)
 Toggling °C/°F
- Operating mode digital measurement [dMes]:** Measuring rate depends on baud rate, e.g. 50 ms at 19.2 kBd
 Refresh time of analog output: same as measuring rate
 Display refresh time: 300 ms or immediately (< 30 ms) at changes > 5°C
 2 alarm contacts with hysteresis (adjustable within the measuring range)
 Toggling °C/°F (display unit only, not pyrometer)
 Menu depends on type of connected pyrometer and operating mode

Order numbers DA 6000

Order no.	Orders
3 890 520	DA 6000 with 85...265 V AC and 24 V DC supply and RS232 interface
3 890 530	DA 6000 with 85...265 V AC and 24 V DC supply and RS485 interface



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 Temperature measurement

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