

# IS 300 · IGA 300

## Compact pyrometer for metallic surfaces

Small, stationary infrared thermometer in 2-wire technique for non-contact temperature measurement of metallic surfaces, graphite or ceramics between 300°C and 2500°C

- ◆ Very small housing dimensions
- ◆ 2-wire technique
- ◆ Short response time
- ◆ Small spot sizes
- ◆ Stainless steel housing
- ◆ Easy electrical and mechanical installation
- ◆ Adjustable Emissivity
- ◆ Built-in LED targeting light
- ◆ Ambient temperature up to 70°C without cooling



The IS 300 and IGA 300 are stationary pyrometers for non-contact temperature measurement of metallic surfaces, graphite, ceramics, etc. The very small housing dimensions enable the integration of the pyrometer in compact production machines, the 2-wire technique enables very easy electrical connection.

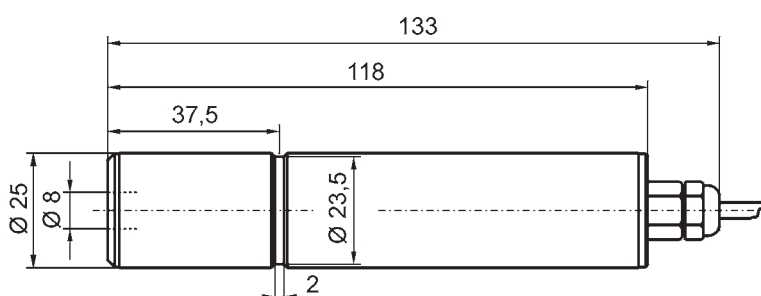
For optimal match of the instrument to the application 3 different focusable optics with small spot sizes are available.

The solid and robust design of the instrument guarantees high operational safety even in rough industrial environments.

### Typical applications:

- preheating
- annealing
- tempering
- welding
- forging
- hardening

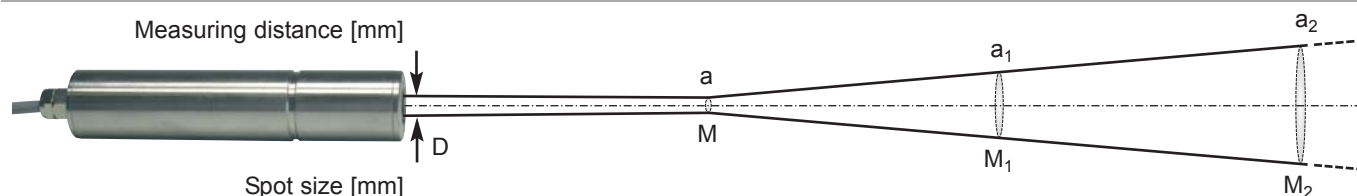
- sintering
- melting
- soldering
- rolling
- brazing
- normalizing



## Technical data

Spectral range:	IS 300: 0.8...1.1 $\mu\text{m}$ IGA 300: 1.45...1.8 $\mu\text{m}$	Sighting:	LED targeting light with separate 5 ... 24 V DC supply
Output:	4 ... 20 mA, load independent current, temperature linear	Ambient temperature:	0 ... +70°C
Max load:	500 $\Omega$ at 24 V power supply	Storage temperature:	-20 ... +70°C
Emissivity $\epsilon$ :	0.2 ... 1; adjustable	Housing:	stainless steel
Response time $t_{90}$ :	10 ms	Dimensions:	118 mm x 25 mm (L x D)
Accuracy:	1.5% of measuring range / °C ( $\epsilon = 1$ , $T_U = 23^\circ\text{C}$ )	Protection class:	IP65 (DIN 40 050)
Temp. dependance:	0.02% of measuring range / °C	Mounting position:	any
Repeatability:	0.5% of measuring range	Weight:	215 g
Power supply:	24 V DC $\pm 25\%$ stab., ripple < 50 mV	Connection cable:	2 m, fixed
		CE label:	according to EU directives about electromagnetic immunity

## Optics



Type	Optics	D	a	M	a <sub>1</sub>	M <sub>1</sub>	a <sub>2</sub>	M <sub>2</sub>
IS 300	1	5	110	1.6	200	6	400	16
IS 300	2	5	300	3.7	600	11	800	16
IS 300	3	5	600	8.0	1000	14	2000	30
IGA 300	1	9	90	2.2	200	11	400	30
IGA 300	2	9	300	5.0	600	15	800	21
IGA 300	3	9	600	10.0	1000	16	2000	38

## Reference numbers

3 856 610	IS 300, MB 13	650 ... 1300°C	3 856 500	IGA 300, MB 8	300 ... 800°C
3 856 620	IS 300, MB 18	650 ... 1800°C	3 856 510	IGA 300, MB 12	400 ... 1200°C
3 856 630	IS 300, MB 23	800 ... 2300°C	3 856 530	IGA 300, MB 13L	300 ... 1300°C
3 856 650	IS 300, MB 25	1100 ... 2500°C	3 856 540	IGA 300, MB 15	500 ... 1500°C

Note: when ordering please specify an optics 1, 2 or 3



### Accessories:

3 890 600	Power supply CZ; 230 V AC $\Rightarrow$ 24 V DC
3 852 550	Power supply NG 2D; 85 ... 265 V AC $\Rightarrow$ 24 V DC, 600 mA, with 2 limit switches
3 890 640	DA 4000-N: LED-display, 2-wire power supply
3 890 650	DA 4000: like DA 4000-N with 2 limit switches
3 890 520	DA 6000, LED-display, RS232, 2-wire power supply, maximum value storage, analog output
3 890 530	DA 6000 with RS485
3 890 660	IP65 front cover for the LED-displays

3 890 610	Galvanic separator for measuring output (carrier rail mounting housing)
3 863 010	Converter 4 ... 20 mA to 0 ... 20 mA
3 834 220	Adjustable mounting support, standard design
3 834 230	Adjustable mounting support, rugged design
3 846 170	Mounting tube
3 835 180	Air purge unit, stainless steel
3 835 220	Air purge unit, stainless steel, short version
3 837 160	Stainless steel water cooling jacket with integrated air purge unit



Power supply CZ



LED digital display



Mounting support standard design



Mounting support rugged design



Air purge units



Water cooling jacket with air purge unit

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Specifications are subject to change without notice.