

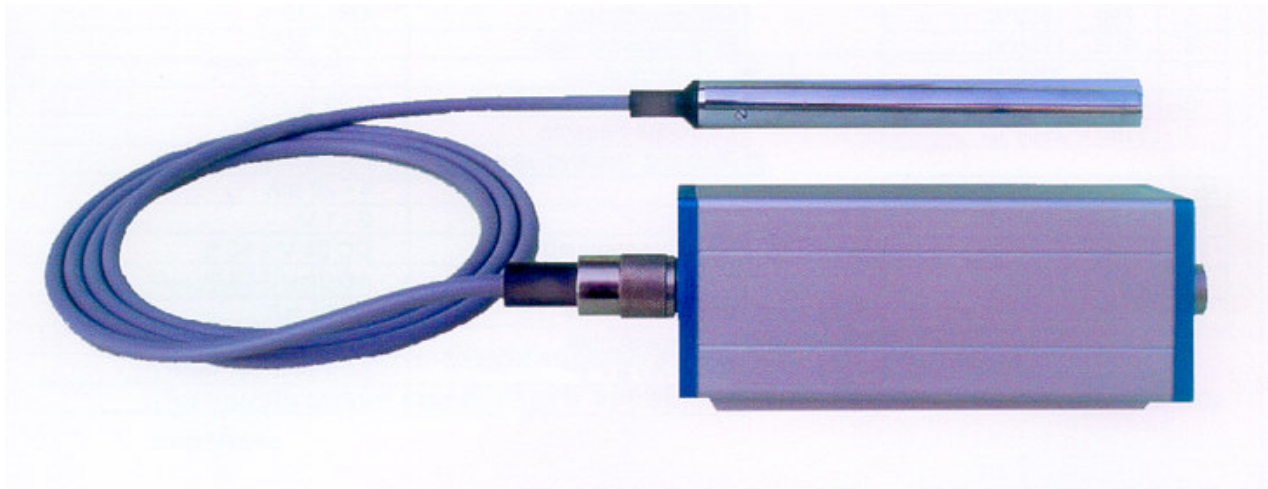
## Infrared Radiation Pyrometer KT18-Series

Accurate, Non-contact, High Temperature measurements with long term stability



Applications:

Metals, Metal oxide, Ceramic, Semiconductor during welding, soldering,



## **Variants:**

### **2 Spectral Ranges:**

KT18.03:	0,85...1,1 $\mu\text{m}$
KT18.04:	1,4...1,75 $\mu\text{m}$

### **Spectral- or Ratio pyrometer:**

KT18.03Q:	0,85...1,1 $\mu\text{m}$
	0,95...1,1 $\mu\text{m}$
KT18.04Q:	1,4...1,75 $\mu\text{m}$
	1,6...1,75 $\mu\text{m}$

### **Temperature Ranges:**

KT18.03:	550...2500 °C	9 Standard Ranges 4 extended Ranges
KT18.03Q	600...2500 °C	5 Ranges
KT18.04	250...1700 °C	5 Standard Ranges 5 extended Ranges
KT18.04Q	300...1200 °C	4 Ranges

(Ranges cannot be changed by customer)

## Lenses with variable focus or fiberoptic available

### 6 different lenses

Field of View:

diameter: 1,5 mm .... 24 mm

distance: 124 mm .... 3950 mm

### 2 fibertypes in 3 different variations:

KT18.03(Q)LL: GM-L48/1800

KT18.04(Q)LL: GM-L49/1800

18 lenses

Field of View:

diameter: 0,7 mm .... 27,2 mm

distance: 50 mm .... 1500 mm

### Output:

Spectral pyrometer: 0...20 mA or 4...20 mA or 0...1 V

Ratio pyrometer: 0...20 mA or 4...20 mA

(Cannot be changed by customer)

	<i>KT18.03/ KT18.03LL</i>	<i>KT18.03Q/ KT18.03QLL</i>	<i>KT18.04/ KT18.04LL</i>	<i>KT18.04Q/ KT18.04QLL</i>
Spectral Range	0,85...1,1 μm	0,85...1,1 μm 0,95...1,1 μm	1,4...1,75 μm	1,4...1,75 μm 1,6...1,75 μm
Accuracy	1% ±1 °C plus 0,05%/°C of the difference between object and housing temperature			
Reproducibility	3 ‰	3 ‰	3 ‰	3 ‰
Emissivity	Adjustable: 0,1...1,0	0,1...1,0	Adjustable: 0,1...1,0	0,1...1,0
Emissivity Ratio	–	Adjustable: 0,8...1,2	–	Adjustable: 0,8 to 1,2
Response Time	Adjustable: 10...100 ms	Adjustable: 20...200 ms	Adjustable: 10...100 ms	Adjustable: 20 to 200 ms
Permissible ambient Temperature	0...60 °C	0... 50 °C	0...60 °C	0...60 °C
Storage Temperature	-10...70 °C	0...60 °C	-10...70 °C	-10...70 °C
Analog Output	0... 20 mA 4... 20 mA 0... 1 V	0... 20 mA 4... 20 mA	0... 20 mA 4... 20 mA 0... 1 V	0... 20 mA 4... 20 mA
Power Requirements	24 VDC ± 10%; 24 VAC ± 10% 160 mA	24 VDC ± 10%; 300 mA	24 VDC ± 10%; 24 VAC ± 10% 160 mA	24VDC ± 10%; 300 mA
Dimensions H / B / T	54x54x147 mm	54x54x147 mm	54x54x147 mm	54x54x147 mm
Weight	0,6 kg	0,7 kg	0,6 kg	0,7 kg
Standard Temperature Ranges	550 – 1050 °C	600 – 1600 °C	250 – 550 °C	300 – 900 °C
	600 – 1200 °C	800 – 1800 °C	300 – 800 °C	350 – 1000 °C
	650 – 1300 °C	900 – 2000 °C	350 – 900 °C	400 – 1100 °C
	700 – 1400 °C	1000 – 2500 °C	400 – 1000 °C	500 – 1200 °C
	750 – 1500 °C		500 – 1200 °C	
	800 – 1700 °C			
	900 – 2000 °C			
	1000 – 2500 °C			
	1100 – 2500 °C			
Extended Temperature Ranges	550 – 1800 °C		250 – 1200 °C	
	600 – 2000 °C		300 – 1300 °C	
	650 – 2200 °C		350 – 1350 °C	
	700 – 2500 °C		400 – 1500 °C	
			500 – 1700 °C	

**lens configuration for KT 18.03 / KT 18.03R / KT 18.04 / KT 18.04R**

<i>lens</i>			<i>from</i>		<i>to</i>	
<i>name</i>	<i>focal length</i>	<i>type</i>	<i>spot diameter</i>	<i>at distance</i>	<i>spot diameter</i>	<i>at distance</i>
L 1050-N1	50 mm		1,5	124,0	2,2	207,0
L 1050-N2	50 mm		1,3	154,0	3,3	357,0
L 1060-N1	60 mm	Achromat	1,5	229,0	3,8	507,0
L 1060-N2	60 mm	Achromat	2,0	294,0	9,2	956,0
L 1060-T	60 mm	Achromat	2,7	319,0	31,0	3956,5
A 1080	80 mm	Achromat	3,5	557,5	24,0	3949,2

**fiber and lenses for KT 18.03LL / KT 18.03QLL / KT 18.04LL / KT 18.04QLL**

<i>Order number</i>	<i>Name</i>	<i>Length</i>	<i>Fiberdiameter</i>	<i>Max. ambient temp.</i>		
186-1005	GM-L48	1800 mm	Ø 1,1 mm	150 °C		
186-1010	GM-L48	1800 mm	Ø 2,0 mm	150 °C		
186-1036	GM-L48	1800 mm	0,5 x 2,7 mm	150 °C		
186-2005	GM-L49	1800 mm	Ø 1,1 mm	150 °C		
186-2010	GM-L49	1800 mm	Ø 2,0 mm	150 °C		
186-2036	GM-L49	1800 mm	0,5 x 2,7 mm	150 °C		
	<i>Type</i>	<i>Ø mm</i>	<i>Length</i>	<i>Distance</i>	<i>Magnification</i>	
116-1206	VL 20 M	11	49,5	20,0	1,0	
116-1068	VL 40 M	11	67,0	40,0	1,0	
116-1207	VL 60	11	62,5	60,0	1,5	
116-1208	VL 50 M	18	127,0	50,0	0,6	
116-1028	VL 100 M	18	120,0	100,0	1,0	
116-1029	VL 160	18	157,0	160,0	1,6	
116-1209	VL 200	18	144,0	200,0	2,0	
116-1050	VL 250	18	132,5	250,0	2,5	
116-1210	VL 300	18	125,5	300,0	3,3	
116-1211	VL 400	18	119,0	400,0	4,5	
116-1071	VL 500	18	152,0	500,0	4,0	
116-1212	VL 600	18	146,5	600,0	6,0	
116-1213	VL 1000	18	138,0	1000,0	9,5	
116-1214	VL 1500	18	135,0	1500,0	13,6	
116-1215	VL 100 M	25	127,5	100,0	1,0	
116-1216	VL 160	25	123,0	160,0	1,5	
116-1217	VL 200	25	226,0	200,0	2,0	
116-1218	VL 250	25	147,0	250,0	2,5	

**Spot size = Fiberdiameter x Magnification**

Rep:



SE-593 96 Västervik, SWEDEN

Tel. +46(0)490258500 , Fax. +46(0)49023766

www.pentronic.se, E-mail: info@pentronic.se