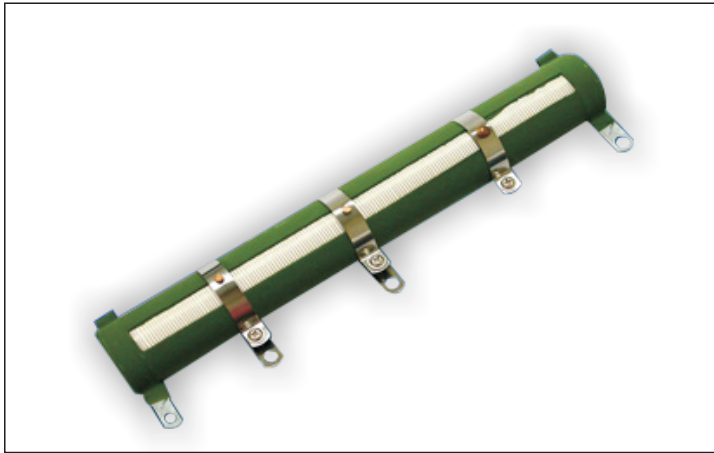


KNW 瓷管式可调电阻器 Tube Adjustable Resistor



本体颜色: Body Color

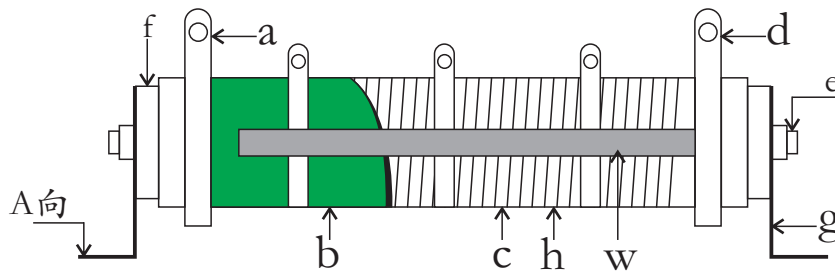
标准品: Standard (Green 绿色)

标示: Marking

(根据客户要求提供相应标识)

(According to the customer request to provide corresponding identification)

● 结构图 Construction



ad	b	c	e	f	h	g	w
接线端子	耐高压绝缘陶瓷釉覆盖层	合金丝	螺杆	陶瓷垫片	高铝瓷管	镀锌支架	变阻区域
Terminal block	High voltage insulation ceramic glaze covering	Alloy wire	Metal screw	Ceramic facing	Alumina porcelain	Zinc plating support	Variable resistance area

● 特性 Feature

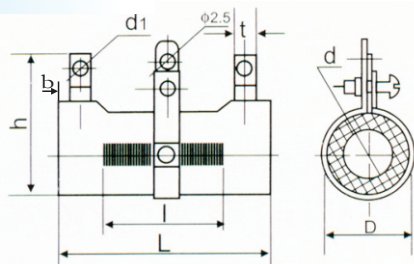
- I 电阻表面被漆, 功率范围较宽
Surface painted, wide power range
- II 优良的高温负荷性能
Excellent high temperature load performance
- III 全焊接结构
Full-welded structure
- IV 产品具有较高的可靠性
High reliability
- V 进口绿色或灰色涂料包封, 文字标志,
(可提供安装配件 (选购件))
Imported grey and green coating, character marking assembly and fittings (available)
- VI 精度范围: $\pm 5\%$ 、 $\pm 10\%$
Resistance tolerance: $\pm 5\%$ 、 $\pm 10\%$

● 参考规格 Reference Standards

JIS C 5201-1

KNW 瓷管式可调电阻器 Tube Adjustable Resistor

规格尺寸 Specifications and Dimensions



规格 Type	功率 Power	外形尺寸 Dimensions (mm)							
		L ± 2	D ± 2	d ± 0.5	h ± 3	b ± 1	t ± 2	I ± 2	d1 ± 1
KNW	10	26	13	4	27	3.5	4.5	10	2
KNW	15	35	14	5.5	28.5	3.5	4.5	20	2
KNW	20	41	14	5.5	28.5	3.5	4.5	20	2
KNW	25	45	17	8	31	3.5	4.5	25	2
KNW	30	51	17	8	31	3.5	4.5	35	2
KNW	35	51	21	12	35	3.5	4.5	35	2
KNW	40	71	21	12	35	3.5	4.5	55	2
KNW	45	87	21	12	35	3.5	4.5	60	2
KNW	50	91	29	20	43	4.5	6	75	3
KNW	60	91	29	20	43	4.5	6	75	3
KNW	75	140	29	20	43	4.5	6	120	3
KNW	80	140	29	20	43	4.5	6	120	3
KNW	100	170	29	20	43	4.5	6	150	3
KNW	120	170	29	20	43	4.5	6	150	3
KNW	150	215	29	20	43	4.5	6	200	3
KNW	180	215	29	20	43	4.5	6	200	3
KNW	200	265	29	20	43	4.5	6	240	3
KNW	250	265	29	20	43	4.5	6	240	3
KNW	300	268	42	20	46	4.5	8	250	4
KNW	350	250	42	30	55	4.5	8	230	4
KNW	400	300	42	30	55	4.5	8	280	4
KNW	500	330	52	25	65	4.5	8	310	4

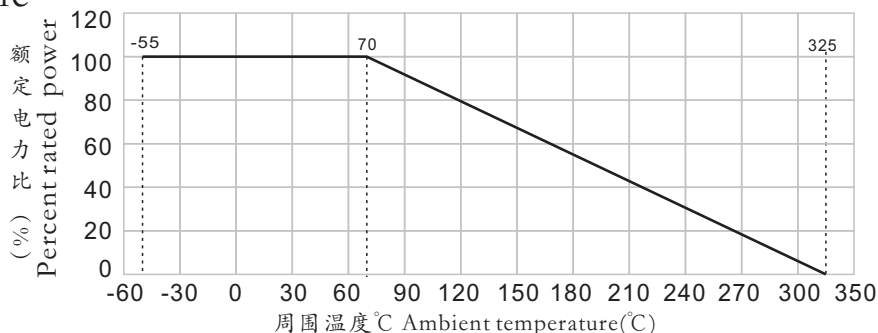
备注:具体规格尺寸可以根据客户的需求制作,同时也可以制作一管多个阻值,也可按客户要求安装固定支架。

Note: We can according customer requirements to customize the specification and dimension, also can product multiple resistance value of one ceramic tube or install the fixed plank.

可协议生产600W~8000W电阻。Our factory can also produce 600W~8000W non-standard resistors according to the requirement

额定温度下降曲线图 Derating Curve

例 Example



KNW 瓷管式可调电阻器 Tube Adjustable Resistor

● 功率、阻值范围与耐电压 Power And Resistance etc

规格 Type	功率 Power(W)	阻值范围 Resistance Range(Ω)	误差值 Tolerance	温度系数 T.C.R PPM/ $^{\circ}$ C	最高使用电压 Max Working Voltage (V)	最高负荷电压 Max Overload Voltage (V)	使用温度范围 Operating Temp.Range					
KNW	10	5.1 Ω ~220 Ω	$\pm 1\%$	$-300\text{PPM}/^{\circ}\text{C} \leq \text{TCR}$	$\sqrt{\text{P.R}}$	$6.25\sqrt{\text{P.R}}$	$-55^{\circ}\text{C} \sim 325^{\circ}\text{C}$					
KNW	15	5.1 Ω ~220 Ω										
KNW	20	10 Ω ~510 Ω										
KNW	25	20 Ω ~1.2K Ω										
KNW	30	20 Ω ~1.5K Ω										
KNW	35	24 Ω ~2K Ω										
KNW	40	24 Ω ~2.7K Ω										
KNW	45	20 Ω ~4.3K Ω										
KNW	50	20 Ω ~4.3K Ω										
KNW	60	20 Ω ~4.3K Ω										
KNW	75	10 Ω ~5K Ω	$\pm 2\%$	$\leq +300\text{PPM}/^{\circ}\text{C}$	$\sqrt{\text{P.R}}$	$6.25\sqrt{\text{P.R}}$	$-55^{\circ}\text{C} \sim 325^{\circ}\text{C}$					
KNW	80	10 Ω ~5K Ω										
KNW	100	10 Ω ~5K Ω										
KNW	120	10 Ω ~5K Ω										
KNW	150	10 Ω ~5K Ω										
KNW	180	10 Ω ~5K Ω	$\pm 5\%$	$\leq +300\text{PPM}/^{\circ}\text{C}$	$\sqrt{\text{P.R}}$	$6.25\sqrt{\text{P.R}}$	$-55^{\circ}\text{C} \sim 325^{\circ}\text{C}$					
KNW	200	10 Ω ~5K Ω										
KNW	250	10 Ω ~5K Ω										
KNW	300	10 Ω ~5K Ω										
KNW	350	10 Ω ~5K Ω										
KNW	400	10 Ω ~5K Ω										
KNW	500	10 Ω ~5K Ω										
KNW	500	10 Ω ~5K Ω						$\pm 10\%$	$\leq +300\text{PPM}/^{\circ}\text{C}$	$\sqrt{\text{P.R}}$	$6.25\sqrt{\text{P.R}}$	$-55^{\circ}\text{C} \sim 325^{\circ}\text{C}$
KNW	500	10 Ω ~5K Ω										
KNW	500	10 Ω ~5K Ω										
KNW	500	10 Ω ~5K Ω										
KNW	500	10 Ω ~5K Ω										

● 性能 Performance

试验项目 Test Items	性能 Performance	试验方法 Test Methods(JIS C 5201-1)
温度系数 Temperature coefficient	$-300\text{PPM}/^{\circ}\text{C} \leq \text{TCR}$ $\leq +300\text{PPM}/^{\circ}\text{C}$	在常温及常温+100 $^{\circ}\text{C}$ 时分别测量电阻并计算每度的阻值变化率。 Test resistance value at normal temperature and normal temperature added 100 $^{\circ}\text{C}$, calculate $^{\circ}\text{C}$ resistance value change rate.
短时间负荷 Short-time overload	$\Delta R \leq \pm(2\%R_0 + 0.05\Omega)$	施加10倍额定功率或最高负荷电压(取较小者)5秒。 According 10 times rated power to account the power or max. overload voltage(get the lower) for 5seconds.
耐焊接热 Resistance to soldering heat	$\Delta R \leq \pm(1\%R_0 + 0.05\Omega)$	在350 $\pm 10^{\circ}\text{C}$ 的锡炉中浸入2~3秒。 Immerse into the 350 $\pm 10^{\circ}\text{C}$ tin stove for 2~3 seconds
可焊性 Solderability	焊锡面积覆盖率95%以上 Tth soldering area is over 98%	在245 $\pm 3^{\circ}\text{C}$ 的锡炉中浸入2~3秒。 Immerse into the 245 $\pm 3^{\circ}\text{C}$ tin stove for 2~3 seconds
温度循环 Temperature cycle	$\Delta R \leq \pm(2\%R_0 + 0.05\Omega)$	在-55 $^{\circ}\text{C}$ 时放置30分钟,然后在+25 $^{\circ}\text{C}$ 时放置10~15分钟,然后再在+155 $^{\circ}\text{C}$ 时放置30分钟,然后在25 $^{\circ}\text{C}$ 时放置10~15分钟,共循环5次。At-55 $^{\circ}\text{C}$ for 30min, then at +25 $^{\circ}\text{C}$ for 10~15min, then at +155 $^{\circ}\text{C}$ for 30min, then at +25 $^{\circ}\text{C}$ for 10~15, min, total 5cycles.
耐湿负荷寿命 Load life in humidity	$\Delta R \leq \pm(5\%R_0 + 0.1\Omega)$	在温度为40 $\pm 2^{\circ}\text{C}$ 、相对湿度为90~95%的恒温恒湿箱中,施加额定电压或最大工作电压(取较小者)共1000小时(通1.5小时,断0.5小时)。Overload rated voltage or Max.working voltage(get the lower) for 1000hours(1.5hours on and half-hour off) at the 40 $\pm 2^{\circ}\text{C}$ and 90~95% relative humidity.
耐温负荷寿命 Load life in heat	$\Delta R \leq \pm(5\%R_0 + 0.05\Omega)$	在70 $\pm 2^{\circ}\text{C}$ 恒温恒湿箱中施加额定电压或最大工作电压(取较小者)共1000小时(通1.5小时,断0.5小时)。Overload rated voltage or Max.working voltage(get the lower) for 1000hours(1.5hours on and half-hour off) at the 70 $\pm 2^{\circ}\text{C}$.
不燃性 Nonflammability	不可有明显火焰 No visible flame	分别按5、10、16倍额定功率加交流负荷5分钟。 Respectively load AC voltage by 5,10,16 times rated power for 5 minutes.

● 料号编号 ordering Information

例 example

KNW	300	F	10R00	A
产品名称 Product Name	功率 Power	精度 Tol	阻值 Ohm	特殊码 Special code
瓷管式可调电阻器	10B=10W 50B=50W 100=100W 300=300W	F $\pm 1\%$ G $\pm 2\%$ J $\pm 5\%$ K $\pm 10\%$	0R100=0.1 Ω 0R200=0.22 Ω 10R00=10 Ω 10K00=10K Ω	A1不带支架 A1 Without brackets A2带支架 A2 With brackets