

Optical Meter Relays/ Self-Contained - K Series.



K Series (Compack I & II) Models: 303-K (3 1/2"), 503-K (4 1/2"), 603-K (5 1/2")

- ▲ UL Recognized with suffix "KU"
- ▲ Temperature & non-temperature models
- ▲ Continuous indication
- ▲ Infinite noise rejection
- ▲ Easy installation - all connections at rear terminals
- ▲ Solid-state circuitry
- ▲ Single and double setpoints
- ▲ Rectangular & stackable edgewise models
- ▲ Customized Scales available

Optical Compack Controllers operate on an optical principle associated with the meter mechanism. A light source (incandescent lamp) and a photo-resistive cell combination are positioned by the setpoint mechanism. An opaque vane is attached to the meter mechanism so that when the indicating pointer reaches the setpoint the vane intercepts the light from the source, causing a sharp change in resistance of the photocell. The resistance change is used to actuate a relay driver circuit for control of an external load. The response characteristics of D'Arsonval mechanisms automatically provide filtering of the input signal, making Compack Controllers immune to line noise and transient surges. Optical type controllers are the best choice for applications in electrically noisy environments.

K Series Specifications					
Specifications	DC Ranges		AC Ranges (Rectifier Type)		Pyrometer
	Current	Voltage	Current	Voltage	
Accuracy	±2%	±2%	±3%	±3%	±2%
Tracking	Optional	Optional	Optional	Optional	N/A
Balance	±1%	±1%	±1%	±1%	±1%
Repeatability	Taut band	< 1/4%	< 1/4%	< 1/4%	< 1/4%
	Pivot-and-Jewel	2%	2%	2%	2%
Resistance Tolerance	±20%	±5%	————	< 10V ±20% ≥ 10V ±5%	N/A
Overload Capacity	1 Second	1000%	≤ 100V 1000% > 100V 200%	150%	150%
	Continuous	150%	120%	150%	150%
Calibration Frequency	————	————	60 Hz	60 Hz	N/A
Overshoot (maximum)	20%	20%	20%	20%	N/A
Response Time (maximum)	Sensitivity ≥50µa	1.5 sec	1.5 sec	1.5 sec	1.5 sec
	Sensitivity <50µa	3 sec	3 sec	3 sec	3 sec

Supply Power: 120VAC 50/60Hz standard; 220VAC, 240VAC, 12VDC, 24VDC and 28VDC optional
Load Relay Rating: SPDT 215VA @ 120VAC DPDT Output Relays optional

Effects of shock, vibration, humidity and temperature are equal to or better than ANSI C39.1-1981.
Safety (dielectric test, leakage and other hazards): instruments are equal to or better than ANSI C39.5-1974.
The above tolerance limits apply to the standard ranges listed in this bulletin. Special instruments may vary from these limits.
Rated circuit to ground voltage = 250 Vrms (350 Peak) except 50VDC on Pyrometer models.



K Series Dimensions			
Model	Height	Width	Depth*
303-K (3 1/2")	3.13	3.28	5.50
503-K (4 1/2")	4.27	4.71	5.50
603-K (5 1/2")	4.36	5.75	5.50

Dimensions are in inches.
* Depth = front of panel to end of terminals.
See price sheet for part numbers.
Contact Factory for more information & dimensional drawings.

DC Ranges	
DC Microamperes	5 to 1000
DC Milliamperes	1 to 1000
DC Amperes	use 50mV external shunt
DC Millivolts	5 to 1000
DC Volts	1 to 500

Process Ranges	
DC Milliamperes	1-5 4-20 10-50
DC Volts	1-5 0-10

AC Ranges (Rectifier Type)	
AC Microamperes	100 to 1000
AC Milliamperes	1 to 1000
AC Amperes	1 to 50
AC Millivolts	250 & 500
AC Volts	1 to 500

**Thermocouple Pyrometer,
RTD Pyrometer, Tachometer
& Frequency Input**
Consult Factory