



Klaran® AKR



PLUG & PLAY

Klaran AKR can be easily integrated into existing point-of-use dispensing systems or offered as a value added standalone option.



MAINTENANCE-FREE DISINFECTION

Proven on-demand water treatment for the full lifetime of typical point-of-use water systems without UV light source maintenance.



LOW COST OF OWNERSHIP

On-demand performance with proven UVC technology for under a penny per liter.



Product Characteristics at 2 Liters Per Minute

Characteristic	Unit	Min	Typ.
End of Life Disinfection Log Reduction Value (E. Coli)	LRV	>3	>3
Beginning of Life Disinfection Log Reduction Value (E. Coli)	LRV	>3	>4
Treatment Capacity (End of Life)	Liters	36,000	

NOTES:

Performance characteristics and treatment capacity can be varied at different flow rates, please consult Applications Engineering at Crystal IS for specific project characteristics needs.

Inlet Water Specification

	Unit	Min	Type	Max	Note
Flow Rate	LPM	0.4		2	
UV (265 nm) Transmittance	%/cm	95	-		
Water Temperature Range (LED ON)	°C	>1	-	50	Frozen water should be avoided to ensure proper operation.
Water Temperature Range (LED OFF)	°C	>1	-	85	
pH	pH	5.8	-	8.6	



Klaran AKR

Electrical Characteristics

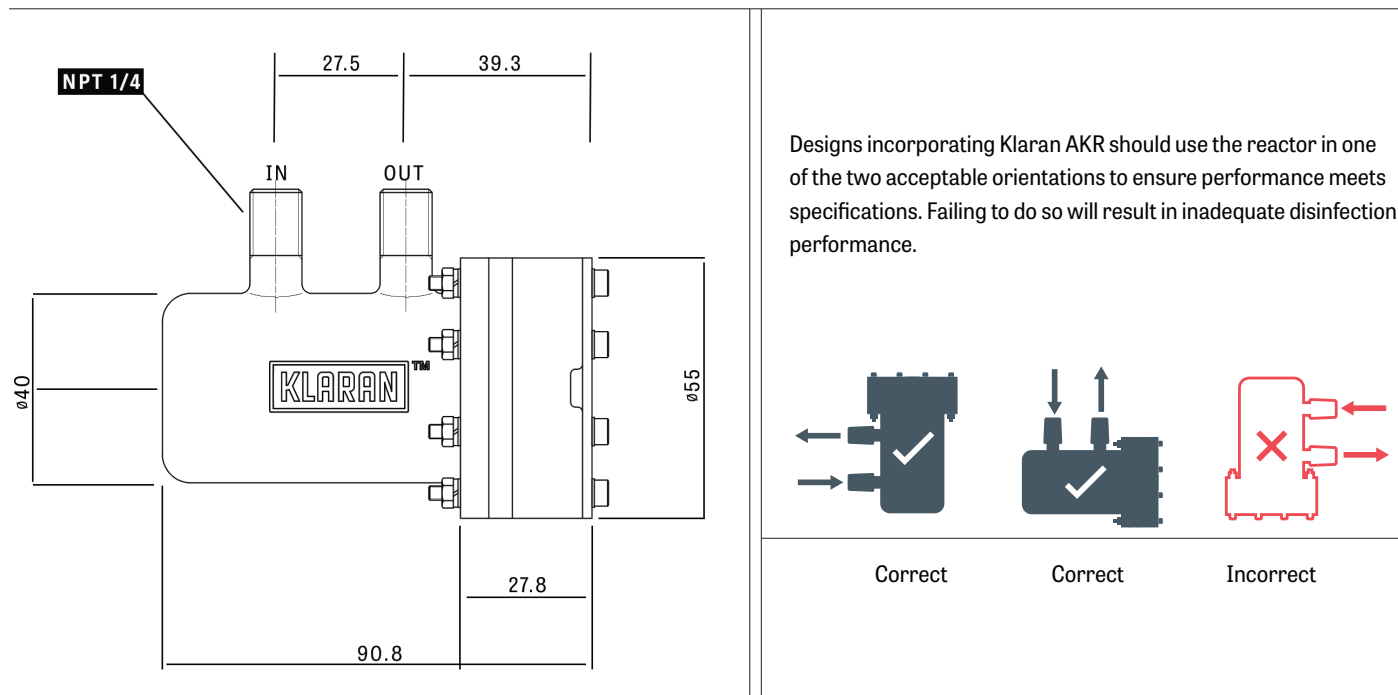
	Unit	Min	Typ.	Max	Note
Power Input Voltage	V	11.4	12	12.6	Constant Voltage
Power Consumption	W	-	10		
Enable Input Voltage	V	5	5	6	
Alert Indicator Output Voltage	V		5		
Maximum Continuous Operation Time	Minutes	-	-	10	
Maximum Recommended Service Life	Years	-	-	7	
Maximum Recommended LED ON Time*	Minutes	-	-	18,000	36,000 L capacity at 2 LPM

* Note: UVC LEDs will still emit UVC energy beyond the Maximum Recommended LED ON time, but may not deliver sufficient UV dose meet stated disinfection performance characteristics.

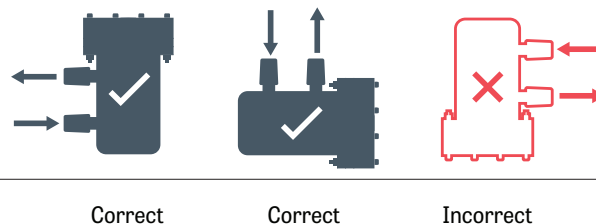
Physical Characteristics

		Min	Type	Max
Weight	Grams		280	
Ambient Temperature Range	C	>1	-	50
Pressure Drop	kPa	-	-	15
Pressure Resistance	MPa	-	-	0.7

Mechanical Dimensions



Designs incorporating Klaran AKR should use the reactor in one of the two acceptable orientations to ensure performance meets specifications. Failing to do so will result in inadequate disinfection performance.

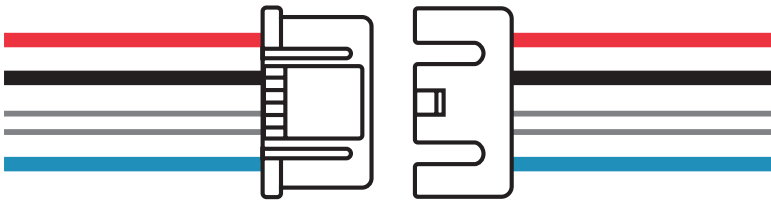


All dimensions in millimeters. Note that the Klaran AKR fittings are 0.25" NPT size.

Wiring Specifications

Name	IN/OUT	Note
VCC (Red)	IN	DC12V required
GND (Black)	GROUND	GROUND for LED and Driver. It is for VCC, ENABLE and INDICATOR
ENABLE (White)	IN	5V TTL. High=Operation, Low=Standby
INDICATOR (Blue)	OUT	5V TTL. High=Normal Operation, Low=Standby or Alarm

Recommended Connector Type



Left side: Molex Female (#0355720400)

Right side: Molex Male (#0353120460)

Handling Precautions

The Klaran AKR contains microelectronic components sensitive to shock, moisture, and operation in conditions beyond stated maximums in this data sheet. Proper care should be followed during shipping, handling, installation, and operation.

Klaran AKR is ESD (electrostatic discharge) sensitive—static electricity and surge voltages seriously damage internal components and can result in product failure.

- > Ensure that tools, jigs and machines being used are properly grounded.
- > Use proper ESD protection, including grounded wrist straps, ESD footwear and clothes when handling the product.

Dropping the product from heights 30 cm and greater will cause permanent damage and impact the reactor performance. Dropping the product from shorter heights may also cause damage.

Do not modify or disassemble the Klaran AKR. Doing so may result in damage, hazardous operation conditions or exposure to UVC radiation.

Klaran AKR should be stored in a controlled, dust-free environment at an ambient temperature less than 30 °C.



DISCLAIMER

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WE INVITE YOU TO LEARN MORE ABOUT OUR UVC LEDs.

70 Cohoes Avenue, Green Island, NY 12183 U.S.A.

518.271.7375 | www.klaran.com | sales@klarant.com

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