Repeater (SD-R)

The Repeater extends the effective range of a SmartDiagnostics® Base Station. Multiple repeaters can be located throughout a plant to act as a bridge between the Base Station and sensor nodes that are beyond the standard RF transmission range. The Repeater provides a simple, plug-and-play receiver location with minimal configuration or setup necessary, and its ruggedized construction makes it appropriate for all industries.

- Relays data from sensor nodes to SmartDiagnostics® Base Station
- Integrated Primary Receiver Node and Long-Range radio
- May be added to existing Base Station installations

Give Your Machines a Voice™

Remote Access

KCF's Repeater enables the user to place wireless sensors in remote locations, providing communication to the cloud or local data analysis computer. Repeaters allow a single Base Station to service a very large plant without requiring multiple connections to the customer network. Repeaters can operate unattended and may be managed remotely.

Reliable Data

The SmartDiagnostics® Repeater is a ruggedized industrial receiver used to manage and organize the data collected from sensor nodes and forward it to the system's Base Station over a long-range wireless radio. The Repeater complements the Base Station and augments the standard range of SmartDiagnostics® sensors.

Simple Networking

The Repeater relays data to the Base Station via long-range radio and requires no connection to the customer network. All that is required is an AC power source.

Sensor Nodes | Repeater | Base Station | CELLULAR / ETHERNET / WIFI | Data Analysis Software

Repeater Specifications

Mechanical

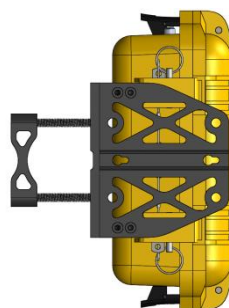|	
Size	11.8 x 9.8 x 4.7 in (300 x 250 x 120 mm) without cables or antennas
Weight	3 lb (1.4 kg)

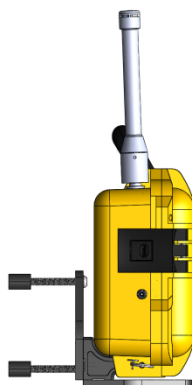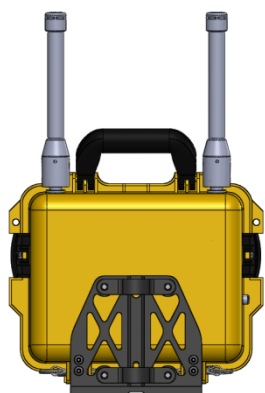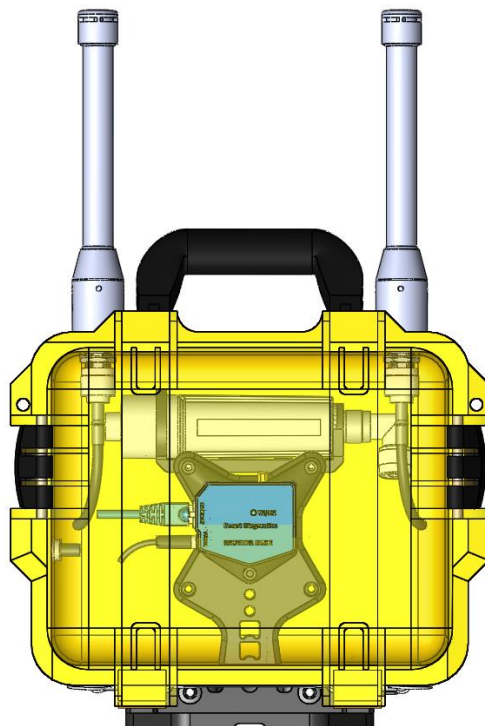### Environmental

Storage Temperature	-40 to 176 °F (-40 to 80 °C)
Operating Temperature	32 to 140 °F (0 to 60 °C)
Case	Pelican Storm iM2050 Case
IP Rating	IP 65
Hazardous Certification	Class I, Division 2, Groups A-D, T4 (model SD-RN Only)

Software And Connectivity

Network Communications	Self-contained 2.4 GHz wireless to Base Station Up to 4 Repeaters per Base Station
RF Range	2400ft (730m) line-of-sight (site survey recommended for installation)
PRN Connectivity	1 PRN included; add additional Repeaters for additional PRNs

Power

Power Source	24 VDC or 110-240 VAC 50/60 Hz
Power Consumption	≤10 Watts

Wiring	- SD-R: Standard three-blade AC Power cable
	  SJOOW rated, 7 feet long
	- SD-RN: Hazardous-Location NEMA 5-15 three-blade
	  connector OR conduit per Class 1 Division 2 Standards

Compatible Accessories

Part Number	Description
SD-BR-ANT	External Antenna Extension (allows antenna to be remotely mounted from Repeater box)
SD-MNT	Universal Mount (allows mounting to poles, walls, work benches, vehicles, etc.)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Changes Or Modifications Not Expressly Approved By The Party Responsible For Compliance Could Void The User's Authority To Operate The Equipment.