

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	Reliable Data	Simple Networking
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.	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.	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.



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

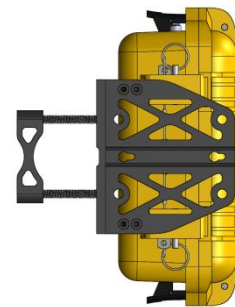
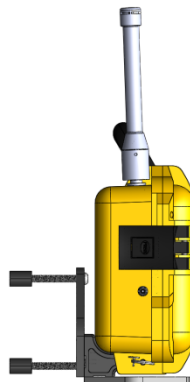
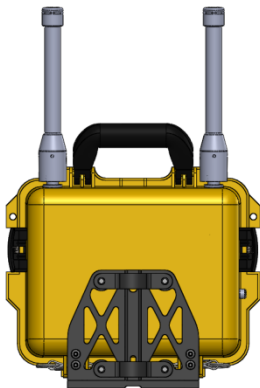
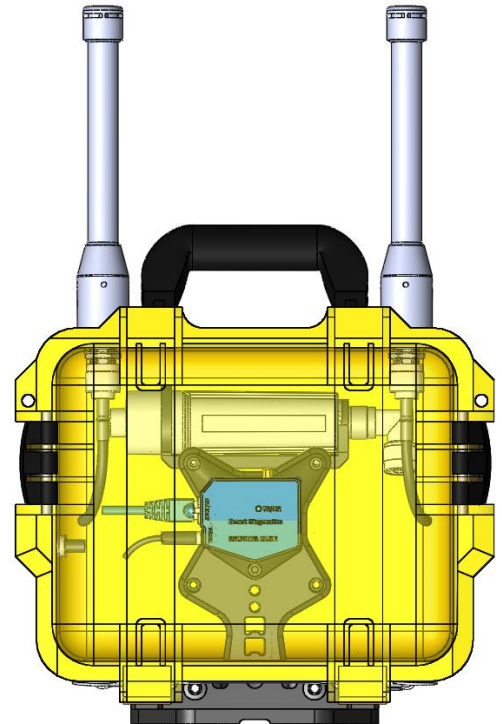
Storage Temperature	-40 to 176 °F (-40 to 80 °C)
Operating Temperature	32 to 140 °F (0 to 60 °C)
Case	Pelican Storm iM2050 Case
IP Rating	IP 65
Hazardous Certification	Class I, Division 2, Groups A-D, T4 (model SD-RN Only)

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.)