

# Features and Benefits

## Flo-Tel™ +



Features	Benefits
ATEX approved.	Allows customers to benefit from detection in all levels of potentially explosive atmospheres, zone 0 compatible.
Reusable.	After operation, the bursting disc, complete with magnet, is the only part of the assembly that needs replacing. The sensor probe can be easily withdrawn from the bursting disc holder, prior to the holder being removed from the flange, and does not need to be electrically disconnected from the control system, thus eliminating expensive rewiring costs.
Fail-safe.	Unlike most alarm systems, which are activated by the flow created after a bursting disc has operated, Integral Flo-Tel™+ is installed on the vent side of bursting discs and is activated by the operation of the disc itself. During operation, a magnet arcs away from its rest position, removing the magnetic field from the sensor, and comes to rest in a position which no longer influences the sensor. This causes the sensor to switch to its fail-safe condition of an open circuit and an alarm condition is the result.
Inbuilt thermistor.	Enables customers to monitor the temperature of their process. If the temperature is too high or too low it affects the pressure of the bursting disc and other key process parameters, potentially causing problems. The inbuilt thermistor also assists customers when a disc has activated, allowing the customer to understand what process parameter affected the disc. Temperatures can be monitored from -55°C to +250°C when used with Radio-Tel.

## Radio-Tel Transmitter



Features	Benefits
Wireless monitoring.	Monitors bursting disc status and temperature when connected to Flo-Tel™+, reduces expensive wiring costs and time incurred with standard sensor products. Sends health messages back to the receiver every minute. In the event of a burst an instantaneous warning signal is transmitted.
IP67 rated / ATEX zone 0 approved.	Robust enclosure, suitable for use in harsh operating environments.
Pre-Wired / various mounting options.	Easily connected to Flo-Tel™+, reducing expensive wiring costs as no need for an electrician. The separately supplied mounting bracket allows the transmitter to be raised to increase signal strength. Easily fitted, pre-wired to allow for easy initial installation and replacement.
Low voltage battery monitoring.	Battery can last up to 3 years, low maintenance, incurs minimal costs by the customer. Easy to replace after 3 years with minimal disruption as it is prewired.
Monitors disc status and process temperature.	2 elements measured through one transmitter, no need for additional control mechanisms.
Low battery warning signal.	Ensures reliability of process, maintenance free and fail-safe design.
Unique Identification of process.	Each transmitter has a unique identification making location quick and easy even on the largest of sites.

# Features and Benefits

## Radio-Tel Receiver



Features	Benefits
The receiver module receives bursting disc and temperature data from the Radio-Tel data transmitters and translates this into an output which can be displayed on a PC or used to drive external signal devices.	Provides intelligent wireless process monitoring - Intelligent real time process monitoring of disc status and temperature. Immediate alert signal in the event of an alarm condition.
Optional Configurable Outputs: The Receiver Module outputs to PC monitoring software and / or switches voltage free contacts (up to 16 channels) that can be used to trigger additional warning devices.	Allows maximum flexibility to meet customer's requirements. The receiver unit can function independently without the need of a PC or software. Alternatively, it can output to both Elfab's software monitoring system and energise independent voltage free contacts that can be used to trigger external devices. Elfab recommend that all customers use the software monitoring system as a minimum requirement.
Suitable for use in harsh environments or varying conditions, IP65 rated.	Suitable for use / installation in varying environments, including dusty environments or where it could come into contact with water.
Optional battery backup system.	Provides reliability that the receiver will still operate in the event of power failure.
16 Channels with 16 sets of configurable voltage free contacts.	Allows mapping of transmitters to any channel, enabling 16 configurable sets of voltage free contacts. This can be used to instigate process shut-down or the triggering of external alert systems.
Self configuration, with optional user defined alerts.	Customer has full control over configuration, no need for technical support. Auto receive and alert functions. Saves time and costs.

## Radio-Tel Repeater



Features	Benefits
Boosts radio signals.	Enables even the largest of sites to benefit from the Radio-Tel detection system. Ensures customer flexibility, allowing signals to be boosted for longer ranges, in harsh operating environments or where buildings and structures make signal range limited.
Individual purchases specific to site.	Maximum customer flexibility, no limit to number of repeaters.
Easy Installation - No configuration required.	Single 240 volt supply required, easy for customer to install, simply plugs into socket, no need for expensive or time consuming installation help. Visual power on indicator visible from distances.
IP65 rated (Non-ATEX approved).	Although can not be connected in an ATEX zone the repeater is still suitable for use in harsh operating environments where elements of dust or liquid may be apparent.
Supplied with integral mounting bracket.	For easy installation, no additional costs required.








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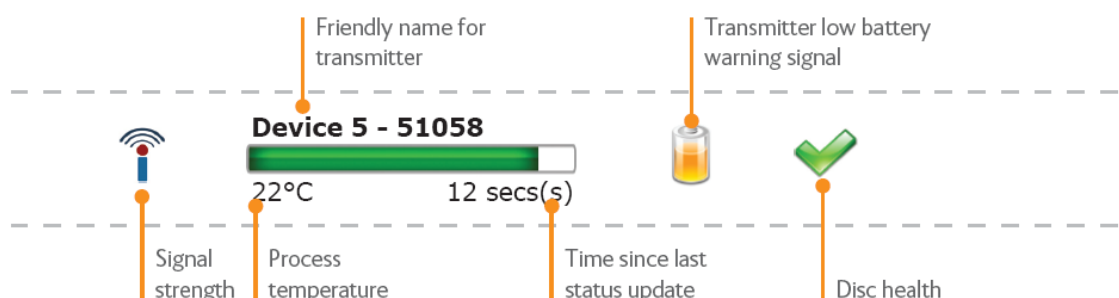
## Radio-Tel Software



Features	Benefits
Interprets and stores data received from the Radio-Tel Receiver.	Allows customers to view and monitor historic data.
Auto receiver function "Plug and Play".	The software is connected to a PC via a serial or USB port. The system has a visual dashboard display where a list of 16 devices will be displayed indicating bursting disc status, process temperature and communication between the transmitters and receiver.
System dashboard graphical display.	Allows for detailed monitoring of each device, including location, temperature graph, low battery warning and signal strength. Can give each location a "friendly" name for easy identification.
User configurable temperature control limits.	Allows customers to set the system to meet their process requirements. In the event of an alarm condition alerts are activated indicating the status of the bursting disc and its temperature. The temperature is recorded at the time when the disc functioned.
Visual alerts when process parameters are exceeded.	Simple symbols indicate disc condition, easy to read and understand. Holds historical information regarding discs, locations, old devices and temperatures.
Trend reports and maintenance warning.	Detailed information per location regarding process temperature and frequency of bursts.

### Software Key

-  Bursting disc has functioned
-  Low battery warning signal
-  Warning alert - temperature is close to, or is exceeding, upper or lower limits
-  Bursting disc OK
-  Signal strength (number of bars indicate strength)
-  No signal
-  Receiver not connected



# Radio-Tel Technical Catalogue

## Components



Flo-Tel™ +



Radio-Tel Transmitter



Radio-Tel Repeater



Radio-Tel Receiver

Product	Code	Description
Flo-Tel™ +	RTTRAN	Battery powered data transmitter for use with Flo-Tel™+
Transmitter	RTTMB	0.75m mounting bracket. Designed for bolting to flanges
Transmitter Mounting Bracket	RTRM	Receiver module preset to support up to 16 transmitters with both hardwiring and software control
Receiver Module	RTRMB	For larger sites or to boost signal. Preconfigured with linear power supply and mounting bracket
Repeater Module and Bracket	RTBBS	12/24v battery backup to maintain regular operation in the event of a power failure.
Battery	RTIB	Klaxon voice enhanced sounder beacon. Supplied with 2m cable
Internal Beacon	RTEB	Klaxon voice enhanced sounder beacon. Supplied with 4m cable
External Beacon	RTAAPB	Klaxon ATEX approved sounder beacon. Supplied with 4m cable. For use in ATEX zone 0
ATEX Approved Beacon	FTICA+	Integral burst detection system with inbuilt thermistor
Software Licenses	RTSL	Install on Control Room PC for easy software monitoring of up to 16 transmitters for burst detection and process Temperature

## Services

Product	Code	Description
Initial Site Survey (Recommended)	RTISS	Complete review of site requirements to operate the Radio-Tel system. Includes a full report on all equipment need and recommended locations
Installation Support	RTIS	Up to 6 hours of on-site support to ensure correct installation of system. Only available if site survey has been conducted
Post Installation Onsite Support	RTPIOS	Assistance in configuring software and fitting components. Minimum of 4 hours on site support Inc travel costs
After Sales Telephone Consultancy Service	RTTS	Telephone support service for all Radio-Tel components and software. Line available 8.00 – 5.30 weekdays