



SM-30D FRAC tag with RFID

High Temperature • Chemical & Solvent Resistant • Abrasion Resistant • Harsh Environment

Technical Data Sheet

Part: #WF- SM-30D

General Description

SM-30D FRAC Tag with RFID Technology

- 30- ft read range on metal
- Ideal for harsh environments such as oil & gas industries
- Easily attaches to pipes and cylindrical assets
- Excellent read/ write performance on any surface



The FRAC tag has RFID technology embedded in solid vulcanized rubber, making it extremely impact resistant, waterproof and durable. The tag is perfect for harsh outdoor environments encountered by industries like oil and gas. Use it for tagging pipes, factory equipment and other valuable assets. The 3/16th inch nylon- coated braided stainless- steel attachment cable comes in a variety of lengths, making this a highly adaptable tag that can be securely fastened to a variety of items.

Impact Resistant RFID

The core of this metal- mount RFID tag is a small rugged circuit board with a metal wire antenna. This patent- pending process allows for embeddable RFID tags that are extremely durable. The WF- SM-30D has been tested for use in harsh environments where impact, pressure and/ or abrasion are likely.

Click [here](#) to see a short video of this impact- resistant tag in action!

This tag has been certified by the Oil and Gas RFID Solution Group.

Applications

Container Tagging, Vehicle/ Fleet Marking, Harsh Environments, Outdoor Use, Oil, Gas, Water Pipelines

Dimensions	5.5" x 0.8" x 0.45"
Available Colors	Tire Rubber Black
Operating Temperature	-40°F to 158 °F (-40 °C to 70 °C)
Survival Temperature	-60 °F to 203 °F (-51 °C to 95 °C)
Water Resistance	Excellent
Solvent Resistance	Excellent
Abrasion Resistance	Excellent
Impact Resistance	Excellent

Test*	Temperatures and Duration	Results
Maximum Temperature	Long- term at 10 hr: 203°F (95°C)	No effect on tag. Tag remained the same in appearance and RFID performance/ function. There was no sign of peeling, tearing or destruction. The tag read normal after the tests. *Test is not limiting.
	Standard at 5 min: 230°F (108°C)	
	Short- term at 90 sec: 244°F (114°C)	
Minimum Temperature	-40°F (-40°C)	
Temperature Cycling	The tag was cycled to 230°F at equilibrium for five times. Between each cycle, it was air cooled to room temperature and read with an RFID reader.	

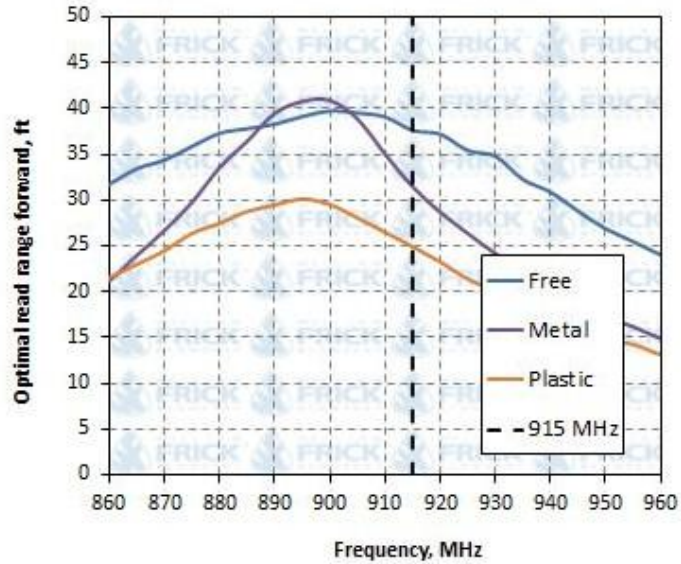
RFID Performance

RFID Protocol	UHF EPC Class 1 Generation 2
Tag Type	Passive Read/ Write
Read Range	Up to 30 feet
Frequency Range	860 to 960 MHz (Global)
IC	Alien® Higgs® 3 - 480 Bits

Test product for system compatibility as individual application conditions can impact results. William Frick Co. does not assume any responsibility or liability for any advice furnished by it, or for the performance or results of any installation or use of the product(s) or any final product into which the product(s) may be incorporated by the purchaser and/ or user. The purchaser and/ or user should perform its own tests to determine the suitability and fitness of the product(s) for the particular purpose desired in any given situation.



Optimal Read Range* on Different Material Surfaces:



*Tag performance was measured free of material influence, on a dry wood slab, standard steel slab, standard window glass, and standard thermoplastic.

Please note: Actual read ranges may differ depending on conditions such as environment, tag placements, hardware, etc.

Adhesive

Mechanical Attachment

Mechanical attachment with 3/16th inch braided stainless- steel nylon- coated cable

Shelf life

Stored at 70F / 50% Relative Humidity

Stable at room temperature

