WHAT IS IT?

The AMR PEMCO personnel and asset tracking tag is designed to operate with multiple types of systems in underground mining or tunneling environments. Available in several versions including non-AMR PEMCO solutions, it is capable of working with any IEE802.11b/g, 2.4GHz Wi-Fi network such as the Mine Net™ Mesh platform, or for ranging applications such as AMR PEMCO's ollision Avoidance Protection System (CAPS).

Dual operation models are available for simultaneous broadcasting in two frequencies. The first dual version is Wi-Fi and Super High Frequency (SHF) RFID for existing users of the AMR PEMCO Mine Net™ tracking system wishing to upgrade to the Mine Net Mesh system.

A second dual version is available for customers utilizing highly precise tracking applications such as that employed by Ventilation-On-Demand (VOD), the AMR PEMCO Zone Acquisition Device (ZAD), or for the Collision Avoidance Protection System (CAPS). The broadcast transmission rate of any version is adjustable at the factory, or by trained service technicians for greater flexibility.

The tag can be worn by personnel in a variety of ways using either the integrated slot ideal for lanyards, inside an accessory pouch located on the waist or helmet, or simply placed inside a vest or chest pocket.

The Wi-Fi and Wi-Fi / RFID versions are compliant with IEC 60079-0 and 60079-11 for Intrinsically Safe operation in hazardous environments and certified under MSHA Part 23 in the U.S.A., and SANS 60079-0: 2012 Ed 5 and SANS 60079-11: 2012 Ed 4 in South Africa.

FEATURES AND BENEFITS

- Versatile use and wearable options

- Up to 240 hours of continuous operation depending on broadcast rate

- IPv4 Addressable supporting thousands of tags per system via TCP/IP protocols

- Rechargeable with 8-10 year battery life

- Single broadcast versions available for:
    - IEEE 802.11b/g Wi-Fi
    - Two-way synchronous ranging for Ventilaton-On-Demand (VOD) or Collision Avoidance

- Dual tag versions available for:
    - Wi-Fi / RFID for Mine Net migration to Mine Net Mesh
    - Wi-Fi / Ranging for precision applications such as Ventilaton-On-Demand (VOD)

- Intrinsically safe certifications in the U.S.A. and South Africa

SPECIFICATIONS	
Enclosure Rating	NEMA 4X, Molded Plastic
Operating Voltage	3.6 VDC
Operating Life	50 - 240 hours based on transmission rates
Operating Temp	-40 to 85 C
Dimensions	57.4 mm x 55.2 mm x 28.2 mm (2.26" x 2.17" x 1.1")
Weight	108 g (3.8 oz)
Frequency Options	315MHz SHF, 2.4 GHz Wi-Fi, 4.5 GHz
Typical Transmission Range (LOS)	Wi-Fi - 182m (600 FT) SHF – 76m (250 FT)
Communication Options	RFID, IEEE 802.11b/g
Address Range	TCP / IPv4
Gain	1.6 dBi
Power Output	+ 18 dBm
Display	Bi-Color LED Indicator
Battery Type	Lithium-Ion, 1500 mAh
Battery Life	8 - 10 Years based on charge cycles
Warranty	12 months
Certifications	MSHA, South Africa

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