Hytera

PD795 Ex

www.hytera.co.uk

The worlds **safest** and most **reliable** digital two-way radio

KEEPING YOU SAFE IN HOSTILE ENVIRONMENTS

If you work in hazardous environments where explosive gases and combustible dusts are prevalent then you can feel reassured that the PD795 Ex radio is the safest and most reliable radio for working in these conditions.

The PD795 Ex is designed to the highest standards and is one of the safest digital hand-held radios available worldwide. It complies with IECEx and ATEX standards as well as FM (North American standard).

At Hytera we understand that maintaining communication in dangerous environments is the single most important factor within your industry.

Contact us:

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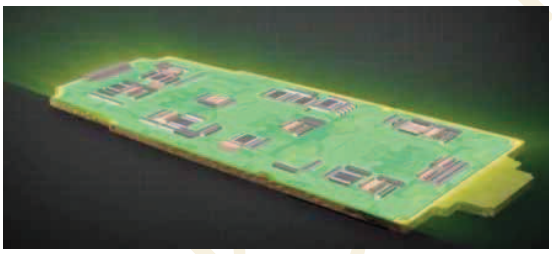
Email: info@hyterauk.co.uk
Web: www.hytera.co.uk

OUTSTANDING DESIGN, CUTTING EDGE TECHNOLOGY

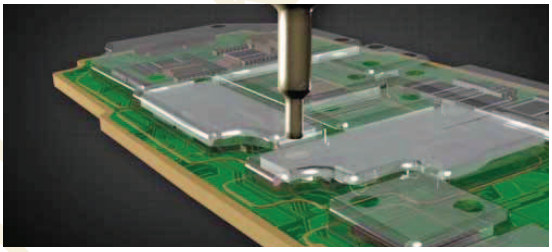
DESIGN FEATURES

TECHNICAL FEATURES



IMPROVED CIRCUIT LAYOUT

All the key components are covered with a protective shield and accurately spaced to ensure the utmost safety, highest performance and to minimise the risk of circuit faults.



PROTECTIVE SILICONE ENCAPSULATION

Silicone encapsulating technology seals and protects all internal circuits from liquid, dust and harmful gas.

UNIQUE BATTERY LOCKING DEVICE

The unique two way locking system prevents the battery becoming dislodged from the radio, this patented design prevents the internal elements from being exposed to dangerous hazards.

CREATIVE FUNCTIONS PRACTICALLY DESIGNED

FUNCTIONS

- ANALOGUE AND DIGITAL CAPABILITY
- GPS
- LONE WORKER
- MAN DOWN
- TEXT AND GROUP TEXT MESSAGES
- 5-TONE SIGNALLING
- SPEED DIALING, PRE-DEFINED TEXT MESSAGING
- SCANNING
  - digital voice and data
  - analogue and digital scanning
- SOFTWARE UPGRADES
- MULTIPLE LANGUAGE SETTINGS
  - German, English, French, Spanish, Polish, Italian, Russian, Turkish, simplied and traditional Chinese, Korean.

OUTSTANDING PERFORMANCE IN TESTING ENVIRONMENTS

Chemical
Ultimate protection when exposed to flamable gases and liquids that when combined could result in explosive situations.

Power
Protects against the risk of explosive dust and air particles that could spark and cause an explosion.

Mining
Outstanding performance in mining conditions that are prone to gas exposure and potential explosive environments.

Fire
Extremely reliable in fire fighting conditions, especially when exposed to oil spills or natural gas leaks.

Pharmaceutical
Exceptional reliability when exposed to solvents and other paharmaceutical products that could result in dust explosions.

Refineries
Possibly one of the most dangerous environments, however you can feel safe in the knowledge that the PD795 Ex will keep open communication at all times.

CERTIFICATION

ATEX Gas Protection

II 2G Ex ib IIC T4
II 2D Ex ib IIIC T120°C IP5X
I M2 Ex ib

ATEX is the European Union directive to which all two-way radios must conform if used in potentially explosive environments. It replaces the Cenelec classication in all European Union member states and EFTA countries.

II	II = Gas group II for other environments (non-mining)
2G	2G = Device category 2 equipment (Gas)
Ex	Ex = Explosion-proof equipment
ib	ib = Type of intrinsic safety protection
IIC	IIC = Protection in gas groups up to IIC
T4	T4 = Device surface temperature will not exceed 135°C

ATEX Dust Protection

Ex ib IIC T4
Ex ib IIIC T120°C IP5X
Ex ib I

IECEx Scheme is the future route to global compliance certication. Its aim is to harmonise standards to allow free movement of goods by establishing a world-wide accepted standard.

II	II = Gas group II for other environments (non-mining)
2D	2D = Device category 2 equipment (Dust)
Ex	Ex = Explosion-proof equipment
ib	ib = Type of intrinsic safety protection
IIIC	IIIC = Protection in dust groups up to IIIC
T120°C	T120°C = Maximum temperature of device surface
IP5X	IP5X = Ingress protection level for Dust: Totally protected against dust

ATEX Mining Protection

Class I, Zone 1 AEx/Ex ib IIC T4 Gb
Class II, III Div 1,
Group E, F, G T120°C
-20°C ⩽Ta ⩽50°C

FM (FM Approvals LLC) is a member of the Nationally Recognised Testing Laboratories of U.S.A. It strives to offer global services with unsurpassed technical integrity and exceptional customer satisfaction.

I	I = Gas group I for mining
M2	M2 = Device category 2 equipment (Mining)
Ex	Ex = Explosion-proof equipment
ib	ib = Type of intrinsic safety protection level

ACCESSORIES

Standard

- Li-Ion Battery
- Power Adapter
- MCU Rapid-rate Charger
- Belt Clip
- Leather Strap
- Antenna

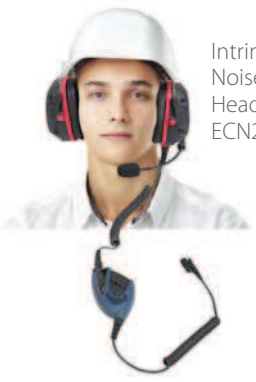
Optional

Intrinsically Safe Remote Speaker Microphone(IP67) SM18N4-Ex

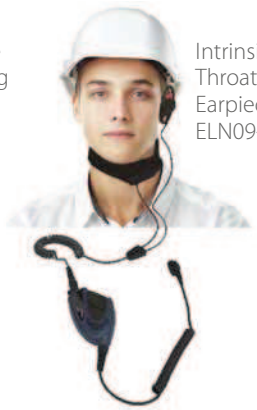
Carrying Case with Leather swivel LCY005

Programming Cable (USB Port) PC38

Intrinsically Safe Bone Conduction Headset(IP67) 1 EBN10-Ex



Intrinsically Safe Noise-cancelling Headset ECN20-Ex



Intrinsically Safe Throat-vibrating Earpiece(IP67) ELN09-Ex

SPECIFICATIONS

General

Frequency Range	UHF1: 400-470MHz; VHF: 136-174MHz
Channel Capacity	1024
Zone Capacity	64 (each with a maximum of 16 channels)
Channel Spacing	12.5KHz / 20KHz / 25KHz
Operating Voltage	7.4V (rated)
Battery	1800mAh (Li-Ion)
Battery Life(5-5-90 Duty Cycle, High TX Power) High-capacity 1800mAh Li-Ion Battery	Analogue: about 14.5 H / 13 H (GPS) Digital: about 17 H / 15 H (GPS)
Frequency Stability	±1.5ppm
Antenna Impedance	50Ω
Dimensions (H W D) (with standard battery, without antenna)	141X 55 X 39 mm
Weight (with antenna & standard battery)	495g
LCD display	160 x 128 pixels, 65536 color, 1.8-inch, 4 rows

Anti-explosion levels	
ATEX	II 2G Ex ib IIC T4 II 2D Ex ib IIIC T120°C IP5X I M2 Ex ib
IECEx	Ex ib IIC T4 Ex ib IIIC T120°C IP5X Ex ib I
FM/CSA	Class I, Zone 1 AEx/Ex ib IIC T4 Gb Class II, III Div 1, Group E, F, G T120°C -20°C ⩽Ta ⩽50°C

Environmental Specifications

Operating Temperature	20°C ~ +50°C
Storage Temperature	-40°C ~ +85°C
ESD	IEC 61000-4-2 level 4 ±8kV (contact) ±15kV (air)
American Military Standard	MIL-STD-810 C/D/E/F/G
Dust & Water Intrusion	IP67 (non-explosion-proof)
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock & Vibration	Per MIL-STD-810 C/D/E/F/G Standard

GPS

TTFF (Time To First Fix) Cold Start	<1 minute
TTFF (Time To First Fix) Hot Start	<10 seconds
Horizontal Accuracy	<10 meters

Transmitter

RF Power Output	1W
FM Modulation	11K0F3E @ 12.5KHz 14K0F3E @ 20KHz 16K0F3E @ 25KHz
4FSK Digital Modulation	12.5KHz Data Only: 7K60FXD 12.5KHz Data & Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm<1GHz -30dBm>1GHz
Modulation Limiting	± 2.5kHz @ 12.5KHz ± 4.0kHz @ 20KHz ± 5.0kHz @ 25KHz
FM Noise	40dB @ 12.5KHz 43dB @ 20KHz 45dB @ 25KHz
Adjacent Channel Power	60dB @ 12.5KHz 70dB @ 20/25KHz
Audio Response	+1 ~ -3dB
Audio Distortion	⩽3%
Digital Vocoder Type	AMBE++ or SELP
Digital Protocol	ETSI-TS102 361-1,-2,-3

Receiver

Sensitivity	
Analog	0.3μV (12dB SINAD) 0.22μV (typical) (12dB SINAD) 0.4μ V (20dB SINAD)
Digital	0.3μ V /BER5%

Selectivity TIA-603 ETSI	60dB @ 12.5KHz / 70dB @ 20 & 25KHz 60dB @ 12.5KHz / 70dB @ 20 & 25KHz
Intermodulation TIA-603 ETSI	70dB @ 12.5/20/25KHz 65dB @ 12.5/20/25KHz
Spurious Response Rejection TIA-603 ETSI	80dB @ 12.5/20/25KHz 84dB @ 12.5/20/25KHz
Hum and Noise	40dB @ 12.5KHz 43dB @ 20KHz 45dB @ 25KHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	⩽3%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	< -57dBm

#Accurate long-term track (95% value>trackable for 5 satellites in rated-130dBm signal strength).

All Specications are tested according to applicable standards, and subject to change without notice due to continuous development.

Hytera

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