

STP8X

INTRINSICALLY-SAFE HAND-PORTABLES

INTERNATIONAL IECEx SPECIFICATIONS V6

Gas Environment = Ex ib IIC T4 Gb
(-20°C ≤ Ta ≤ +55°C)

- Protection by Intrinsic Safety: Ex ib (1 countable fault)
 - Gas group: IIC (& all lower groups IIB & IIA)
 - Temperature class: T4 (135°C (max. internal surface temp) & all lower groups T3, T2 & T1)
 - Equipment protection level: Gb (Gas Zone 1 & 2)
 - (-20°C ≤ Ta ≤ +55°C) identifies that the product achieved all certification conditions whilst the ambient temperature varied between these temperature extremes
- Dust environment = Ex ib IIIC T90°C Db (-20°C ≤ Ta ≤ +55°C)
- Protection by Intrinsic Safety: Ex ib (one countable fault)
 - Dust group: IIIC (conductive dust & all lower groups IIB & IIIA)
 - Temperature: 90°C (max. temperature case could reach)
 - Equipment protection level: Db (dust zone 21 & 22)
 - (-20°C ≤ Ta ≤ +55°C) identifies that the product achieved all certification conditions whilst the ambient temperature varied between these temperature extremes

ATEX SPECIFICATIONS V6

Gas environment = Ex II 2G Ex ib IICT4 Gb
(-20°C ≤ Ta ≤ +55°C)

- Equipment group: II
 - Equipment category: 2 (Suitable for use in gas zones 1 & 2)
 - Protection by Intrinsic Safety: Ex ib (1 countable fault)
 - Gas group: IIC (hydrogen & the lower classes including IIB – Ethylene & IIA – Propane)
 - Temperature class: T4 (135°C (max. internal surface temp) & all lower groups T3, T2 & T1)
 - Equipment protection level: Gb (gas zones 1 & 2)
 - (-20°C ≤ Ta ≤ +55°C) identifies that the product achieved all certification conditions whilst the ambient temperature varied between these temperature extremes
- Dust environment = Ex II 2D Ex ib IIIC T90°C Db
(-20°C ≤ Ta ≤ +55°C)
- Equipment group: II
 - Equipment category: 2 (suitable for use in zones 21 & 22)
 - Protection by Intrinsic Safety: Ex ib (1 countable fault)
 - Dust group: IIIC (conductive dust & all lower groups IIB & IIIA)
 - Temperature: 90°C (max. temperature case could reach)
 - Equipment protection level: Db
 - (-20°C ≤ Ta ≤ +55°C) identifies that the product achieved all certification conditions whilst the ambient temperature varied between these temperature extremes

VOICE SERVICES

Full duplex calls (to MS & PABX/PSTN)
Half-duplex calls (individual & group)
Priority call
Emergency call (pre-emptive priority)
Intelligent alarm reporting
Talking party identity
Calling line identity presentation
DTMF dialling⁵
MSISDN dialling⁵
DTMF post-dial tone entry (full-keypad version only)
Dynamic group number assignment
Background (hidden) groups
DMO individual call
DMO group call

DMO emergency call
DMO intelligent emergency call
TMO/DMO independent volume control
Ambiance listening
Privacy mode
Whisper mode
Group focus

DATA SERVICES & APPLICATIONS

Status messaging (in TMO & DMO)⁵
SDS messaging (in TMO & DMO)⁵
Concatenated SDS messaging⁵
Multi-slot packet data
TETRA pager & call out
WAP browsing
Radio applications
Image & map storage on memory card
Lone Worker feature
Missed event application, indicator & soft key
Auto-capitalisation on SDS text entry (full-keypad version only)
Circuit mode data
Up to 30 quick status messages

LOCATION BASED SERVICES

GPS integrated option
GPS-based compass
Bluetooth location system compliant
Over-The-Air GPS reporting using the following protocols:

- ETSI location standard reporting (LIP)
- NMEA
- Sepura compact messaging

SECURITY SERVICES

Authentication
Class 1, 2 & 3 TETRA security
Air Interface encryption
TEA1/2/3/4 supported²
SMART card E2E encryption support²
BOS & Sectra smart card support²
E2E encryption support²

DMO REPEATER SERVICES (LICENCE REQUIRED)

DMO voice repeated
DMO tone signalling repeated
Group status & SDS repeated
Type 1A efficient operation over one RF channel
Presence signal support
Emergency call
Monitoring & participation in calls

ACCESSORIES

STP8X advanced RSM
STP8X advanced RSM (Peltor interface)
STP8X large button PTT
STP8X lightweight headset with PTT
STP8X in-ear headset with PTT
STP8X throat mic headset
STP8X skull mic headset
STP8X lightweight boom headset
STP8X heavy duty headset
STP8X heavy duty helmet headset
STP8X Scorpion headset
STP8X USB programming lead
STP8X hard leather case
STP8X hard leather case flap
STP8X holster case
STP8X lightweight case
STP8X shoulder strap
STP8X extended belt loop
STP8X Klickfast stud kit
STP8X RF/GPS antenna
STP8X Klickfast stud

STP8X belt clip
STP8X spare RUSC cover
STP8X single pocket desktop charger
STP8X six-way charger PSU & interconnects
STP8X in-vehicle charger

DIMENSIONS

Height: 139mm
Width: 61mm/54mm
Depth: 44mm
Weight: ≤338g
Frequency bands:
380-430MHz: STP8X038 (full keypad)
STP8X138 (reduced keypad)
407-473MHz: STP8X040 (full keypad)
STP8X140 (reduced keypad)

POWER SUPPLY

7.4V (nominal) lithium polymer battery pack
Intelligent reporting battery
1400mAh battery

PRODUCT OPTIONS

Bluetooth
GPS
Micro SD card (up to 4Gb supported)
Man-Down alarm³
DMO repeater type 1A
Air Interface encryption options
E2E encryption options
Wide range of languages & keymats supported⁶

DISPLAY & USER INTERFACE

Large 30x38mm active LCD area
Hi-resolution display (176 x 220 pixels)
Transflective TFT display, 262K colours
Normal, large & very large text options
16 configurable soft keys (full-keypad)/seven configurable soft keys (reduced-keypad) (+ emergency key)
Two context keys
Call history
Phone book (2000 entries)
9900 talkgroups in TMO/DMO
5000 multi-level talkgroup folders
Intelligent search facility
Quick groups
Transmit inhibit with on/off status messaging
Fixed & definable scan lists
Remaining charge-time indication
Missed call indicator
Large, tactile keypad
Intuitively-enhanced user interface
Choice of three user interface styles: compatibility, list & grid modes
Sepura Picture Message
Smart menu

RF PERFORMANCE

RF power: MS power class 4 (1W)
RF power: customisable for TMO/DMO/REP
Adaptive power control supported
Receiver class: A & B
Receiver static sensitivity -112dBm (-115dBm typical)
Receiver dynamic sensitivity -103dBm (-106dBm typical)

PRODUCT PERFORMANCE

Voice audio 1W⁴
Operational temperature -20°C to 55°C
Storage temperature -40° to 85°C¹
Dust & water protection IP67 (dustproof, waterproof & submersible)
Shock, drop & vibration ETS 300 019

1 – As defined in ETSI EN300 019-2-1 and EN300 019-2-2

2 – Availability is subject to export licence

3 – The Man-Down alarm should in no way be regarded as a substitute for compliance with appropriate risk assessment and other safety procedures or practices

To enable Man-Down, a software licence is required

4 – Using internal STP8X speaker

5 – Reduced-keypad variant uses Sepura pseudo-keyboard text entry

6 – Reduced-keypad version supports multiple languages on one keymat. Full-keypad version supports multiple languages and localised keymats

Sepura's policy is to continually improve its products and services. The specifications, features and facilities described in this document were correct at publication, but are subject to change without notice.

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STP8X

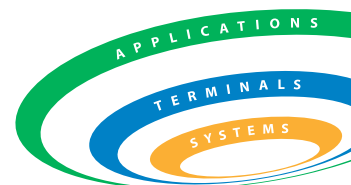
INTRINSICALLY-SAFE
HAND-PORTABLES



The STP8X series meets the highly demanding V6 of the IECEx/ATEX standard. Comprising full-keypad and reduced-keypad variants, the series offers an impressive array of features and a full range of accessories.

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Going further in critical communications



STP8X ACCESSORIES

A selection of the wide-ranging portfolio of accessories for the STP8X series:

NEW DESIGN*

STP8X ADVANCED REMOTE
SPEAKER MIC (RSM)**



NEW DESIGN*

STP8X LARGE BUTTON PTT**



* November 2015

RUGGED DESIGN

The STP8X offers unrivalled levels of ruggedness and robustness. Its IP67 rating means that it is able to withstand submersion in up to 1m of water for 30 minutes and is completely dustproof. Suitable for the harshest and most challenging environments, the STP8X meets V6 of the IECEx/ATEX standards.

Version 6 is a highly **rigorous testing regime** for Intrinsically-Safe radios, demanding that the product withstand being heated to 80°C at 90% relative humidity for 28 days, followed by being rapidly chilled to between -25°C and -30°C for 24 hours to attempt to induce brittleness. Upon emerging from the cold chamber, it is immediately impacted and drop tested and submitted to a formal IP test for both liquid and vacuum-assisted dust ingress, in order to check that its integrity has not been breached.

LOUD AND CLEAR

Clear communication is fundamental to user safety. The STP8X provides unrivalled clarity of audio, achieved through its award-winning innovative hardware and software, enabling users to communicate quickly and efficiently in noisy environments where heavy machinery and protective headgear or clothing is used.

EASE OF USE

The STP8X series features an enhanced user interface, with a choice of **three presentation styles**, which users can select according to their personal preference or operational requirements:

- Compatibility mode, allowing existing Sepura users to be immediately familiar with the STP8X
- Smartphone-style grid and list modes

This choice of user interface helps to minimise training costs.

MINIMISE TRAINING COSTS

Both variants in the series also feature a highly-tactile keypad, designed for use with gloved hands. The reduced-keypad version is specifically intended for users who require swift access to specific functions. The inclusion of **Bluetooth connectivity** in the STP8X enables users to connect easily and wirelessly to suitable peripheral devices and accessories. This minimises the use of wires and cables and makes it ideal for users, such as those on oil rigs or in manufacturing environments, who are frequently close to moving machinery.

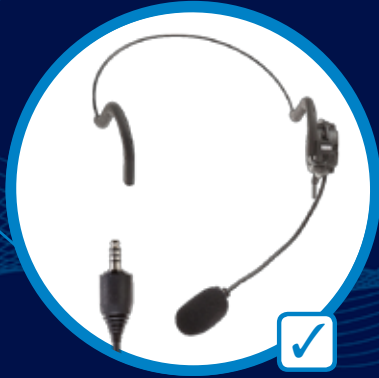
In addition, the 'Twist and Zoom' feature uses **smartphone technology** to allow a portrait image (stored on a Micro SD card) to be zoomed to full-screen size, allowing the user to see full detail of an image as they rotate the radio.

✓ HOT SWAP ACCESSORIES

STP8X THROAT MIC HEADSET
(ATTACHES TO RSM OR PTT)



STP8X LIGHTWEIGHT
BOOM HEADSET
(ATTACHES TO RSM OR PTT)



STP8X SKULL MIC HEADSET
(ATTACHES TO RSM OR PTT)



HAND-PORTABLE

STP8X SERIES

- › Robust, user-friendly and designed with user safety in mind, the STP8X series offers an IP67 environmental protection rating (dustproof, waterproof, submersible); loud, clear audio; a choice of intuitive user interfaces; and an highly tactile keypad.
- › The **full-keypad** version is designed to give swift and easy access to a full set of functionality. The **reduced keypad** version offers the same functionality, yet gives easy, safe and direct access to specific functions – ideal for use with gloved hands.
- › A proven technology, the STP8X is in use throughout the world in areas such as fire and rescue, open-cast mining, petrochemicals, airports, policing and the military.

HOT-SWAP ACCESSORIES

The STP8X RSM and PTT support a hot-swap Nexus interface. Sepura-approved and certified Nexus-based headsets can be attached to, or removed (hot-swapped) from the RSM[†] or PTT[†] whilst in a dust or gas hazardous environment.

**Peltor interface variant also available. Please check latest IECEx/ATEX certificates for approved Peltor headsets.

[†]Accessories connected directly to the STP8X RuSC connector, such as the RSM and PTT, cannot be attached or removed in a hazardous environment. STP8X Scorpion headsets are not hot-swappable in a hazardous area when used with the STP8X large button PTT or the STP8X advanced RSM.

INFORMATION SECURITY

Air Interface and end-to-end (E2E) encryption options on the STP8X offer protection against eavesdropping and ensure the confidentiality of sensitive operational information.

RANGE OF ACCESSORIES

The STP8X is supported by a **comprehensive range of approved IS accessories** designed to ensure safe, reliable operation and loud, clear audio – vital in hazardous environments. The range allows for customisation and a product that is perfectly tailored to user needs.

DATA CAPABILITIES

Users of IS radios often need to interact or communicate automatically with a variety of other systems, particularly those at the back-end of an operation. The growing range of Sepura radio applications, including use of WAP and SDS technologies, enables tasks such as automated job allocation or database look-ups. Users can also rapidly review data stored on the radio via its removable Micro SD card.

FLEET INTEGRATION

The STP8X is fully compatible with Radio Manager 2, Sepura's market-leading fleet management tool, thus reducing the total cost of ownership and allowing users to manage their fleets efficiently.

SCREEN LEGIBILITY

Screen clarity is fundamental when operating in demanding environments. The large, hi-resolution display utilises dual illumination technology to ensure crystal-clear viewing in all light conditions, including harsh sunlight.

SEPURA PICTURE MESSAGE

Sepura Picture Message allows the radio to securely receive images and any associated text, permitting simultaneous distribution to multiple user groups via SDS.

SMART MENU

Customer-defined smart menus give intuitive access to hundreds of soft key features. Related functions can be grouped together, allowing features to be activated quickly with no need to remember complicated key combinations.

LONG BATTERY LIFE

The STP8X offers **exceptional battery life**, to cope with long shifts and a large number of calls.

USER SAFETY

The STP8X offers **the most advanced Man-Down solution in the TETRA IS market**, with motion- and tilt-monitoring as well as a local alarm and over-the-air alerting. This is backed by an integrated GPS receiver, allowing swift location of personnel, ensuring their safety.

Rugged design, quality
audio, easy to use