



TC-700 Ex PLUS

Analog hand-held radio

The TC-700 Ex PLUS is an ATEX-certified hand-held radio for the professional use in hazardous environments. With the ATEX-certified hand-held radios from HYT for professional applications, you have the possibility to communicate unhindered in the team. If a solution needs to be found in a critical solution, you can establish a permanent connection so that you can completely concentrate on solving your problem.

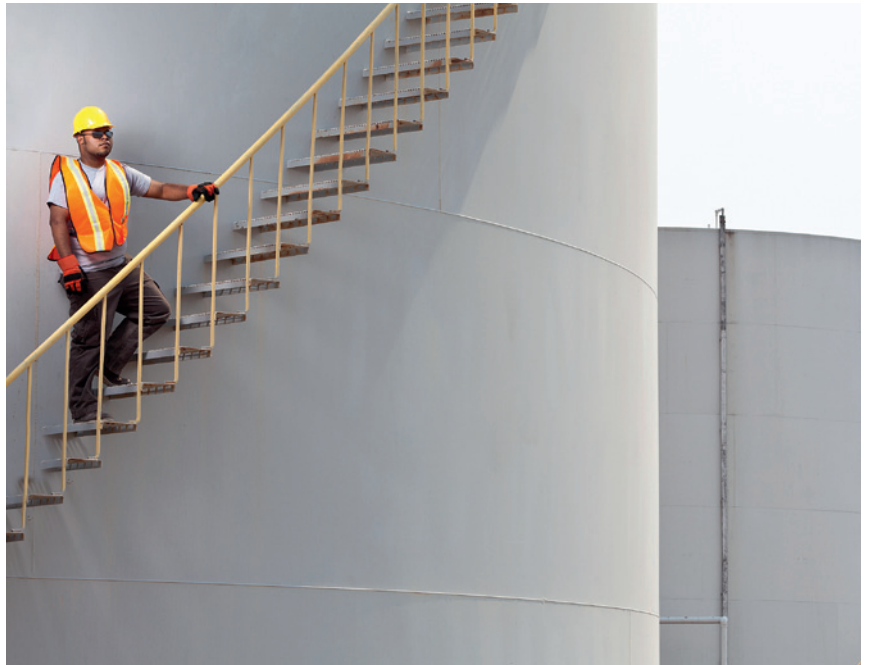
HYT
Two-way Radio



Radio

TC-700 Ex PLUS

Analog hand-held radio



Highlights

Intrinsically safe hand-held radio

Radio transceivers that are being used in potentially explosive environments of oil and gas plants or in gas-contaminated rooms, must be designed and manufactured with safety in mind in order to provide complete safety. The ATEX hand-held radio TC-700 Ex PLUS enables you to establish immediate radio contact on site with the push of a button without endangering yourself.

Productivity

The supplied lithium-ion battery with 1700 mAh enables an operating time of 14 hours at an operating cycle of 5-5-90.

Adaptability

The intrinsically safe TC-700 Ex PLUS supports a large selection of ATEX-certified audio accessories, such as hand-held microphones, bone-conduction headsets and simple ear plugs.

Expanded safety functions

The clearly visible emergency call button triggers a defined emergency communication procedure. An even greater protection for working in hazardous environments is provided by the optional man down function of the TC-700 Ex PLUS. This function automatically requests support if the radio transceiver is lying on the floor for a defined period of time.

Lone Worker Function

The Lone Worker Function offers you additional safety if you are working alone and outside from your team. If you do not respond to a warning tone that is emitted at regular intervals, an emergency call is automatically transmitted.

Safety check

If you do not respond to the safety check signal, a defined emergency procedure is activated.

Secure battery lock

The secure lock of the battery ensures that the battery cannot fall out if the radio transceiver should be dropped.

Improved voice quality

The TC-700 Ex PLUS combines advanced voice technologies to provide optimal voice quality during your communication. The whisper function, for example, ensures that even the most soft-spoken messages are transmitted in a comprehensible way.

HDC2400™ and HDC1200 signalling

The signalling with HDC2400 enables functions, such as identification, call timer, voice storage, individual call, group call and broadcast call.



Functions

Integrated scrambler

The scrambler function provides you with increased security in communication.

Channel indicator

With this function, the radio transceiver indicates the number of the currently set channel during switch-on or when switching channels, thereby offering you a high degree of convenience.

Battery charge display

Upon pressing the function key, the radio transceiver reports the current charge state (very low, low, satisfactory or high).

Storing messages

Messages as well as service and programming protocols can be stored in the memory of the radio transceiver. As a result, the device is extremely service and maintenance-friendly.

Auto contact

This function is particularly useful in demanding communication environments, e.g. when climbing onto tall systems, in conveyor operation and for rescue missions. If this function is activated, the radio transceiver automatically transmits an alarm if you are located outside of the communication range.

Stun / Kill & Revive

This function protects against unauthorised use of lost or rented devices using a remote-controlled blocking of the transmitting or transmitting/receiving mode. A blocked device can be used again only after entering the unblock code.

Power-on self test

At power-on, the radio transceiver automatically performs a self-test and checks the radio status. If an error is detected in the process (e.g. CPU error or EEPROM error), the device issues an alarm. This enables you to quickly detect device errors.

Safe design

Maintaining the ATEX standard (Ex II 2G Ex ib IIB T3), the safely designed casing and the battery lock enable the safe use of state-of-the-art radio technology in hazardous environments.

Safe accessories

The TC-700 Ex PLUS features suitable accessories for use in hazardous environments.

Ergonomic design






The construction of the TC-700 Ex PLUS facilitates its operation in critical situations.

Extensive safety functions







Various safety functions, such as an emergency call button, man down and lone worker function (optional) protect you in critical situations.



Standard accessories

				
Lithium-ion battery 1700 mAh BL1703-Ex	Charging station CH10L11-Ex	Mains adapter PS1018	Belt clip BC09	Hand strap RO04

Optional accessories (excerpt)

					
6-way quick charger MCL07-Ex	Carrier bag (leather) LCBN57	Intrinsically safe earphone with inline PTT microphone ESM01-Ex	Intrinsically safe hand-held microphone SM08M1-Ex	Receive-only earphone ESS01	Programming cable PC19

The illustrations shown above are only for reference purposes. The products themselves may vary from these representations.

Technical data

General data	
Frequency ranges	VHF: 136 – 174 MHz UHF: 420 – 470 MHz
Channel capacity	16
Channel spacing	12.5 / 20 / 25 kHz
Operating voltage	7.4 VDC
Standard battery	1700 mAh (Lithium-ion battery)
Battery service life (5-5-90 operating cycle)	approx. 14 hours
Operating temperature range	-20 °C to +50 °C
Frequency stability	± 2.5 ppm
Dimensions (H x W x D) (with battery, without antenna)	122 mm x 55 mm x 38 mm
Weight (with antenna and battery)	426 g
Antenna impedance	50 Ω

All technical indications were tested according to the corresponding standards. Subject to change on the basis of continuous development.

Transmitter	
Transmitting power	≤ 1 W / 3.5 W
Modulation	16 KΦF3E / 11 KΦF3E
Interfering signals and harmonics	-36 dBm (< 1 GHz) -30 dBm (> 1 GHz)
FM noise	40 / 45 dB
Nominal audio distortion	≤ 3 %

Receiver	
Sensitivity	0,25 / 0,35 μV
Selectivity	60 / 70 dB
Intermodulation	65 dB
Spurious response rejection	70 dB
Signal-to-noise ratio	40 / 45 dB
Nominal audio power output	0.5 W
Nominal audio distortion	≤ 5 %

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