

## Radio handheld transmitter

### EFS-HS8L, EFS-HS12L EFS-HSxFT, EFS-HSxMT

#### General description

With our own developed radio remote control system **EFB + EFS** users get ready-to-use, complete and industrial-suited devices. The system or the devices are very versatile and can be reconfigured at any time (programming adapter is required).

The radio handheld transmitters **EFS-HS8L, EFS-HS12L** and **EFS-HSxFT, EFS-HSxMT** can be used in combination with our standard 433MHz or 868MHz receivers.

The radio systems are also available with narrow band modules for longer range and lower breakdown susceptibility.

The setting of the desired operation mode is done quickly and conveniently via a programming adapter using a Windows PC program. The software is available for free after registration in our customer portal [www.elseco.eu](http://www.elseco.eu).

The power is supplied by a 9V block battery or optionally with 2x 3.6V lithium batteries (type AA) with significantly higher capacity.

Customer requests regarding labeling are generally possible from the 1st piece.

#### Function

The handheld transmitters are available with different RF modules for 433MHz or 868MHz. The transmitters work with max. 40bit coding. The code can be programmed almost randomly. Also a group function can be programmed (e.g. EFS-HS12L: keys 1-4 are defined as group keys and keys 5-12 can be used in each group. Thereby 32 functions can be operated). When used with 2-, 3- or 4-digit numbers, up to 9999 functions are possible.

By each key or code a funktion can be controlled. However, one or more receivers can be controlled with one transmitter. Likewise, several transmitters can controll a receiver.

The handheld transmitters have a range in the free field of approx. 100m to max. approx. 1000m (depending on RF module and antenna used), which can be reduced caused by buildings, interference radiation and interfering fields.

#### Technical data

Enclosure	120 x 65 x 23 mm, Color gray-white or black
Protection	IP54 (incl. battery compartment)
Antenna	internal antenna (option: stub antenna)
Frequency	433,92 MHz or 868,3 MHz
Authorization	general approval in the territory of the EU and Switzerland
Transmit power	dep. on RF module 10mW (10dBm) to max. 16 mW (12dBm)
Modulation	ASK, On-Off Keying (OOK)
Code setting	programmable (option: programming adapter)
Keyboard	membrane keyboard with 8 or 12 keys (individually labeled)
Keys	max. 6 colored membrane keys or 6 metal keys membrane keys in the colors: black, gray, white, red, green, blue, yellow or orange
Auxiliary voltage	9V block battery or 2x 3.6V lithium battery (option)
Power consumption	rest: approx. 0.04mA to max. 0.1mA (dep. on RF module) send: approx. 8mA to max. 40mA (dep. on RF module)
Display	LED during transmission mode (only with membrane keypad)
Environment	operating temperatur -10...+50°C

[Designs according to customer requirements, please ask!](#)

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Technical changes, errors and misprints reserved



Radio handheld transmitter EFS-HS8Lgr and EFS-HS12Lsw



EFS-HS3FT with custom labeling



Radio handheld transmitter EFS-HS6FT



Radio handheld transmitter EFS-HS1MT