

# Ferrolux FL 10

## Systematic line and fault location



- **Precise direction guidance with right/left arrows**
- **“SignalSelect” for clear route location**
- **Depth and signal current intensity measurement at the push of a button**
- **Route sensor weighs less than 1 kg for non-tiring use**
- **“DirectSignal” for effective line location**

### DESCRIPTION

The Ferrolux location system is the solution for your day-to-day tasks. You can use the system to quickly and easily find cable faults. You can locate lines just as quickly, measure how deep they are and save data including GPS co-ordinates in the memory.

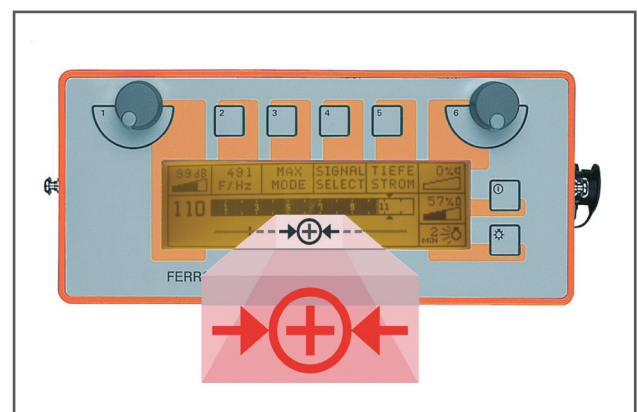
The route sensor for location tasks weighs less than 1 kg, which means you can use it for lengthy periods without getting tired.



Special features such as the SuperMax Signal, DirectSignal and SignalSelect make your job easier and the results more accurate.

### SignalSelect

SignalSelect is a patented method for finding the direction of a signal on a line, and greatly increases the certainty and efficiency of route location. This method is particularly useful in areas where several systems are in close proximity.

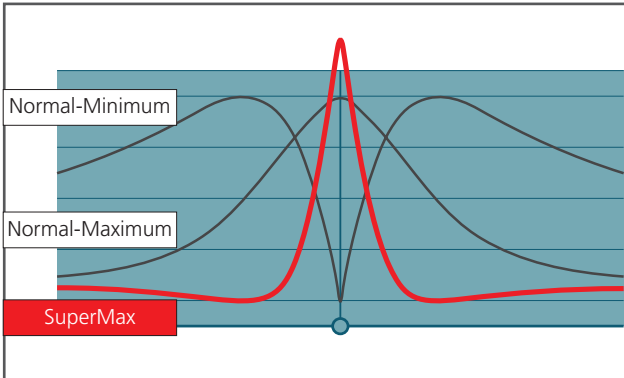
The Ferrolux generators produce a specially encoded audio frequency signal, which is fed in directly or inductively. The FLE 10 / FS 10 receiver system selects the signal via the target line and identifies the direction of signal flow.



- Clear display
-  Signal flow from the generator to the remote end
-  Signal flow from the remote end to the generator
- Independent of line length
- For any type of line (cable, pipe)
- Inductive or direct signal connection

**SuperMax**

The existing Maximum method is relatively inaccurate, and has therefore mostly used for ground surveys. The Ferrolux FLE 10 / FS 10 receiver system combines the conventional Maximum and Minimum methods to achieve a new, improved method called SuperMax. Even relatively untrained operators can use this method to achieve excellent location results.



■ **Maximum method**

*Advantage:* optimum reception via the line  
*Drawback:* very broad location range

■ **Minimum method**

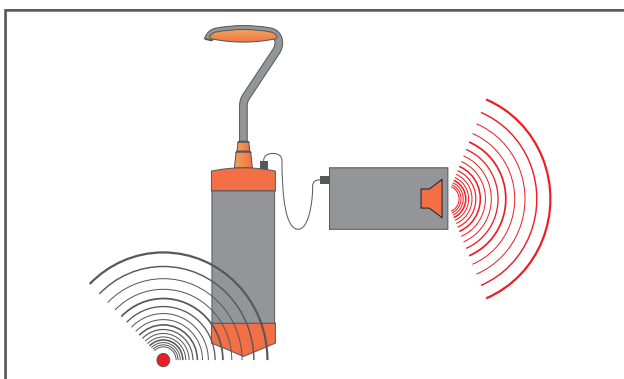
*Advantage:* very accurate location  
*Drawback:* very susceptible to asymmetric field geometry

■ **SuperMax method**

Very accurate location with an optimum signal via the line and no signal beside the line

**DirectSignal**

An analogue reception signal is directly audible through the internal loudspeaker or headphones. Listening to the reception signal increases available information, and supports the visually displayed information on the receiver, facilitating effective line location. There are separate knobs for setting the signal amplification and volume.

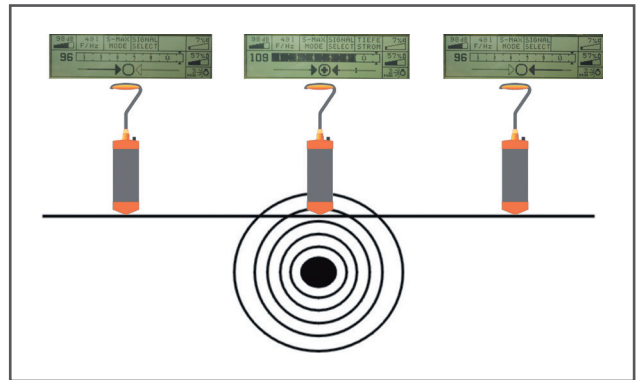


- Directly audible analogue reception signal
- Highly sensitive antennas for signal reception
- Filtering and adjustment for the optimum audible range

**Directional left/right guidance**

The arrows show you whether to move the FS 10 route sensor to the left or right in order to keep it directly over the line. The arrow shaft shortens the closer you are to the line.

A marking across the arrow shaft appears when the FS 10 route sensor reaches a 45° angle to the side to the line.



- Clear direction display
- Distance-based direction display
- Clear indication when the user is standing over the line

**FLE-I Log PC software**

The I-Log software allows you to import the route data stored in the Ferrolux receiver. Combined with the optional GPS module, it provides precise data on the route, detected faults and their positioning.

## TECHNICAL DATA\*



Generators	FLG 10	FLG 50	FLG 200
<b>Output power</b>	0 ... 10 Watt	0 ... 50 Watt	0 ... 200 Watt
<b>Increment</b>	0.5 Watt	2.5 Watt	10 Watt
<b>Output frequencies</b>	491 Hz / 982 Hz / 8440 Hz	491 Hz / 982 Hz / 8440 Hz	491 Hz / 982 Hz / 8440 Hz
<b>Custom frequencies available (&lt;10 kHz)</b>	yes	yes	yes
<b>Operating temperature</b>	-20 °C ... +50 °C	-20 °C ... +50 °C	-20 °C ... +50 °C
<b>Protection class</b>	IP 54	IP 54	IP 20
<b>Dimensions</b>	250 x 120 x 170 mm	410 x 175 x 335 mm	450 x 320 x 133 mm
<b>Weight</b>	2.9 kg	14 kg	12 kg
<b>SignalSelect</b>	yes	yes	yes
<b>Measuring functions</b>	Loop impedance Voltage Current	Loop impedance Voltage Current	Loop impedance Voltage Current
<b>Power supply</b>	NiMh 12 V / 4 Ah	Lead gel battery 12 V / 12 Ah	100 ... 240 V AC
<b>Operating time</b>	approx. 2.5 h at 10 Watt	approx. 6 h	Mains operation only
<b>Impedance adjustment</b>	0.5 ... 1024 Ω	0.5 ... 1024 Ω	0.5 ... 1024 Ω

### Audio frequency receiver FLE 10

<b>Receiver frequencies</b>	
passive	50 Hz / 60 Hz / 100 Hz / 120 Hz
active	491 Hz / 982 Hz / 8440 Hz
<b>Dynamic range</b>	referred to a cable depth = 1 m
50 HZ	10 mA ... 10,000 A      120 dB
491 Hz	400 μA ... 400 A          120 dB
982 Hz	180 μA ... 180 A          120 dB
8440 Hz	20 μA ... 20 A            120 dB
<b>Depth measurement</b>	0.1 m ... 7 m (active frequencies only)
<b>Current measurement</b>	1 mA ... 400 A / 180 A / 20 A
<b>Power supply /</b>	Alkaline batteries 4 x LR 6      > 20 h
<b>Operating time</b>	NiCd/NiMh 4 x R 6            > 13 h
<b>Dimensions (W x H x D)</b>	
FLE 10	220 x 100 x 110 mm
FS 10	550 x 100 x 40 mm (without handle)
<b>Weight</b>	
FLE 10	approx. 1.5 kg
FS 10	approx. 0.9 kg
<b>Temperature range</b>	-20 °C ... +55 °C

### ALL THE ADVANTAGES OF THE FERROLUX GENERATORS AT A GLANCE

- Automatic impedance adjustment
- Automatic or manual frequency selection
- Multi-frequency operation – transmits three frequencies simultaneously
- Displays output voltage which is dangerous to touch
- Overload protection/display

## SPECIAL ACCESSORIES



DEB 3-10 step voltage sensor with three frequencies



Separation filter 10 W



Cable selection drum



Transmitter coil 8440 Hz



Standard headphones



Transmitter clamp 100 mm

### ORDERING INFORMATION

Product	Order no.
FLG 10 set	813123
FLG 50 set	813134
FLG 200 portable set	82000072
<b>Accessories</b>	
Standard headphones	899003874
Reel with 25 m lead (contact proof)	810002785
Reel with 100 m lead (contact proof)	810002784
Step voltage sensor with three frequencies	899005110
Cable selection drum	899003640
Transmitter coil 8440 Hz for FLG 10	810695
Separation filter 10 W	820008823
Transmitter clamp 50 mm	810000093
Transmitter clamp 100 mm	810003540
Flexible universal tongs UZF 150	810003542
Threading device for UZF 150	810668
Transmitter coil 9820 Hz	810394
Case for FL 10 complete and FL 10 single receiver	810002598
Vehicle charging lead for FLG 10	810000019
Vehicle charging lead for FLG 50	810000006



Transmitter clamp 50 mm



Flexible universal tongs UZF150

Further information about probes or pipeline sondes and additional accessories can be found in the brochure „Fibreglass location cables and probes“.

\* We reserve the right to make technical changes.

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#### CERTIFICATION ISO

Registered to ISO 9001 Cert. no. 000677 QM08

**FL10\_DS\_EN\_V02**

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