



- For tracing ducts, pipes and sewers and their blockages
- Smallest in the market: Diameters starting from 4.6mm
- For telecom and electric installation, civil engineering etc.
- Transmitting frequencies 33kHz and 512Hz



## Small sondes for microducts

Vesala produces the smallest sondes in the industry. Small sondes are especially intended for calibrating fiber optic microducts and locating their blockages e.g. before jetting fibers. Sondes are jetted in a duct equipped with a shock absorber and a calibrating head. Except for MPL4-33, these sondes can also be mounted to a push rod using the M5 or M6 female tread fitting of their battery compartment. Sondes have flexible construction which helps them pass duct curves.



### Shock absorbers and other accessories

Shock absorbers protect sondes in case they hit obstacles. A selection of different size calibrating heads enable instant duct calibrating.



Duct inner diam. (ø/mm)	Calibrating head (ø/mm)	Shock absorber (ø/mm)	Fitting to sonda (thread)
6	4.8	4.0	M3.5
8	6.4	6.4	M5
8	6.6	9.0	M6
10	8.0		
12	9.6		
14	11.2		
16	12.8		

M5  M6

**New**

FM56 Flexible Thread Adapter (M5 to M6 female) (Product #V14800)

### Spare batteries



BR425-kit10: Spare battery kit (10 pcs) for MPL4-33 and MPL6-33 sondes (Product #V14027)



BR535-kit10: Spare battery kit (10 pcs) for MPL7-33 and MPL9-33 sondes (Product #V140147)

### NanoSonde MPL4-33 (ø4.6 mm)



3V lithium battery

**Basic setup:** (Product # V14010), MPL4-33 sonda, M3.5 fitting, shock absorber with 4.8mm head, 2 pcs 3V lithium batteries, spare battery cap, plastic storage box, quick guide.

### MicroSonde MPL6-33 (ø6.4 mm)



3V lithium battery

**Basic setup:** (Product #V14020) MPL6-33 sonda, battery compartment with M5 mounting, 2 pcs 3V lithium batteries, plastic storage box, quick guide.

### MicroSonde VMS6-33 (ø6.4 mm)

**New**



3V lithium battery

**Basic setup:** (Product #V19010) VMS6-33 sonda, battery compartment with M5 mounting, 2 pcs 3V lithium batteries, plastic storage box, quick guide.

### MicroSonde MPL7-33 (ø7.5 mm)



3V lithium battery

**Basic setup:** MPL7-33 sonda, battery compartment with M6 mounting (product #V14031) or M5 mounting (product #V14030), 2 pcs 3V lithium batteries, plastic storage box, quick guide.

### MiniSonde MPL9-33 (ø9 mm)



3V lithium battery

**Basic setup:** MPL9-33 sonda, battery compartment with M6 mounting (product #V14041) or M5 mounting (product #V14040), 2 pcs 3V lithium batteries, plastic storage box, quick guide.

## Sonde versions and technical specifications

Model	Sonde diam. / length	Frequency *)	Min. micro duct diam.	Range in free air **)	Range in cast iron duct	Battery type	Battery life	IP / IK code
MPL4-33	4.6 / 94 mm	33 kHz	6 mm	2.3 m	0 m	CR/BR425	9 h	IP67 / IK02
MPL6-33	6.4 / 84 mm	33 kHz	8 mm	2.3 m	0 m	CR/BR425	9 h	IP67 / IK03
VMS6-33	6.4 / 114 mm	33 kHz	9 mm	4.7 m	0 m	CR/BR535	6 h	IP67 / IK04
MPL7-33	7.5 / 114 mm	33 kHz	10 mm	5.1 m	0 m	CR/BR535	6 h	IP67 / IK07
MPL9-33	9.0 / 138 mm	33 kHz	12 mm	5.7 m	0 m	CR/BR535	6 h	IP67 / IK07

\*) 33kHz is compatible with the Vesala CL43 receiver and many other locators.

\*\*) Indicated ranges are typical tracing distances with the Vesala CL43 receiver, maximum range is typically longer. 33kHz frequency does not work with metal ducts.

## Sondes for heavy use

PL18 sondes are affordable yet powerful and robust. They can be used to locate ducts, conduits and sewers with a minimum Ø21 mm and their blockages. PL18-33 is ideal for non-conductive ducts, such as plastic and concrete.

PL18-05 is intended to be used with cast iron ducts. It can be used with ducts made of other metals such as stainless steel too, but operating distance will remain shorter.

PL42-05 is Vesala's most powerful sonde particularly for large metal ducts.

PL18 sondes have an M10 male or M12 female thread in their battery compartment for push rods. With adapters (accessory) also rods with M5, M6 or M10 mounting can be used.

The PL18-FM flexible mounting adapter (accessory) enables PL18-sonde pass through corners. With PL18-FM, M6 threaded rods can be used too.

PL18 sondes are packed in a handy plastic storage box with one lithium battery. PL42-05 is packed in a small carrying/storage case including 8 pcs LR6 batteries.



PL18-33 sonde mounted to a push rod with the PL-MSA adapter

### Sonde PL18-33 (Ø18 mm)



**Basic setup:** PL18-33 sonde, battery compartment with M12 mounting (product #V14051) or with M10 male mounting (product #V14050), 1 pc 3.6V lithium battery, plastic storage box, quick guide.

### Sonde PL18-05 (Ø18 mm)



**Basic setup:** PL18-05 sonde, battery compartment with M12 mounting (product #V14061) or with M10 male mounting (product #V14060), 1 pc 3.6V lithium battery, plastic storage box, user guide.

### MegaSonde PL42-05 (Ø42 mm)



**Basic setup:** (Product #V14080), PL42-05 sonde, battery compartment with M12 mounting, 8 pcs LR6 1.5V alkaline batteries, plastic carrying case, user guide.

### Adapters and accessories



3.6V lithium spare battery (for PL18 sondes)



Mounting adapter from M12 to M10 and M5 or M6: PL-MSA5 (product #V14057) and PL-MSA6 (product #V14058)



PL18-FM flexible battery compartment/mounting adapter, M6 and M12 thread (product #V14194)

## Sonde versions and technical specifications

Model	Sonde diam. / length	Frequency *)	Min. straight duct diam.	Range in free air **)	Range in cast iron duct **)	Battery type	Battery life	IP / IK code
PL18-05	18 / 110 mm	512 Hz	21 mm	5.3 m	3.5 m	LS14250	8 h	IP68 / IK08
PL18-33	18 / 85 mm	33 kHz	21 mm	10 m	0 m	LS14250	20 h	IP68 / IK08
PL42-05	42 / 234 mm	512 Hz	50 mm	13 m	8.4 m	8 x LR6	5 h	IP68 / IK08

\*) 512Hz is standard frequency for metal ducts. 33kHz frequency does not work with metal ducts.

\*\*) Indicated ranges are typical tracing distances with Vesala the CL43 receiver in free air or from cast iron duct, maximum range is longer.

## Where and how to use sondes

### Who needs sondes?

- Especially fiberoptic telecom installers and electric installers
- Water, heating and sewer installers and renovators
- Excavation contractors

Vesala's MPL sondes in particular can be used for microduct calibrating: Sonde and a shock absorber are first jetted through the duct to ensure that the duct is OK for jetting the fiber. If the duct is blocked, it can be located above ground accurately by locating the sonde signal with a receiver.

Larger cable ducts, conduits, pipes and sewers and their blockages can be located with PL18 and PL42 duct sondes. Exact locating considerably saves working time and helps avoiding unnecessary excavation.

Suitable sonde is chosen according to the task: Bigger sondes are more robust and they have longer tracing distance. Big sondes are usually pushed into a duct with a push rod whereas jetting with compressed air is the typical method with small sondes.

### Transmitted frequencies & duct materials

- **33kHz** (32.768 kHz) is the industry standard frequency suitable for locating non-conductive ducts. It is compatible with Vesala CL43 receiver and other brand 33kHz locators.
- **512Hz** frequency is to be used especially with cast iron and stainless steel ducts, though other duct materials can be used too. Vesala's CL43 is the best choice for the receiver but other brand 512Hz receivers can be used as well.

### Push rods

From Vesala you can also get a high quality Volta push rod for your sonde. Glass fiber rods are available in various lengths and rigidities. Most common sizes are listed below.

Prod #	length / diam. / thread
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Z30120	50m / 4.5mm / M5
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Z30130	100m / 6 mm / M6
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Z30150	150m / 9 mm / M12
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Inserting a sonde into a micro duct before connecting duct to a jetting machine.

### Receiver for sonde locating

#### CL43 Compact locator

CL43 is a handy and affordable locator which can be equipped with a selection of sondes and probes according to customer preference. CL43 works with all Vesala sonde frequencies.

By adding the CTT33 transmitter to the equipment, CL43 locator can be used as a full featured cable locator.



CL43 receiver and a variety of extra accessories in the carrying case. Suggested setup for 33kHz sondes is version CL43-PA (product #V00111).



Exact location of the sonde and duct saves unnecessary digging.

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