

- 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		

#### Flexible Thread Adapters

M5  M5 or M6

FM55: M5 to M5 female  
(Product #V14805)

FM56: 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)

## 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 / IK04
VMS6-33	6.4 / 114 mm	33 kHz	9 mm	4.7 m	0 m	CR/BR535	6 h	IP67 / IK07
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 / IK08

\*) 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.

### 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, battery cap tool, 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** (product #V14032): MPL7-33 sonda, battery compartment with M5 mounting, battery compartment with M6 mounting, 2 pcs 3V lithium batteries, plastic storage box, quick guide.

### MiniSonde MPL9-33 (ø9 mm)



3V lithium battery

**Basic setup** (product #V14042): MPL9-33 sonda, battery compartment with M5 mounting, battery compartment with M6 mounting, 2 pcs 3V lithium batteries, plastic storage box, quick guide.

## 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.



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

### Sonde PL18-33 (Ø18 mm)



**Basic setup** (product #V14052): PL18-33 sonde, battery compartment with M12 female mounting, battery compartment with M10 male / M6 female mounting, 1 pc 3.6V lithium battery, plastic storage box, quick guide.

### Sonde PL18-05 (Ø18 mm)



**Basic setup** (product #V14061): PL18-05 sonde, battery compartment with M12 female mounting, battery compartment with M10 male / M6 female mounting, 1 pc 3.6V lithium battery, plastic storage box, user guide.

PL18 sondes have M10 male / M6 female and M12 female thread battery compartments for different push rods. With accessory adapters also rods with M5, M6 or M10 mounting can be used.

The PL18-FM flexible mounting adapter (accessory) enables PL18-sonde pass through corners. PL18-FM can be used with M12 or M6 male threaded rods.


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.


### 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: PL-MSA5 (product #V14057)

 PL18-FM flexible battery compartment/mounting adapter, M6 and M12 female 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	6.4 m	4.2 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	16 m	10 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 and VMS sondes can be used especially 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.

Right 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.

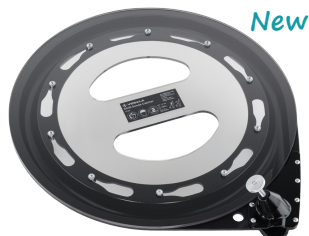
### Transmitted frequencies & duct materials

- **33kHz** (32.768 kHz) is the industry standard frequency suitable for locating non-conductive ducts.
- **512Hz** frequency is used especially with cast iron and stainless steel ducts, though other duct materials can be used too.

With either frequency Vesala's CL43 is the best choice for the receiver but other brand receivers can be used as well.

## Sonde catcher

Sonde Catcher SC39 is an accessory to be mounted to the end of a duct during jetting. It catches the high-speed traveling sonde from the duct end safely so that the sonde remains intact and safe working is guaranteed. SC39 can be mounted on ducts with 8-24mm diameter.

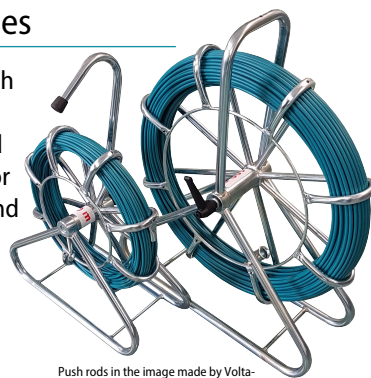


Product #V18010

## Push rods for sondes

Vesala sondes intended for push rod use have M5, M6 or M12 female and M10 male threaded fitting. Typical rod diameters for sondes vary from 3 to 12mm and lengths from 30m to 250m.

It is advisable to use as flexible rod as possible to ensure effortless pushing and to avoid sonde damage.



Push rods in the image made by Volta-Macchine (Italy). Consult your local reseller to get a suitable rod for your sonde.



Inserting a sonde into a micro duct before connecting duct to a jetting machine.

## Receiver for sonde locating

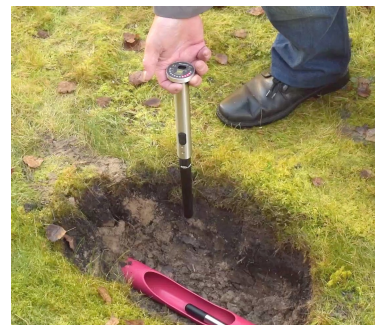
### CL43 Compact locator

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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