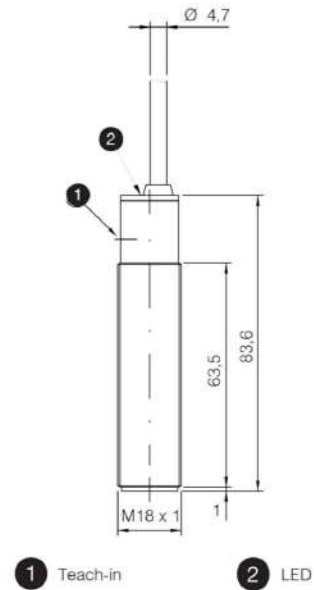


# VK1D/SPH-MA

Ultrasonic Sensor

**voxin tech.**  
making machines smart



## Detection properties

Nominal sensing distance	1600mm
Thermal drift of Sr	$\pm 2\%$
Repeat Accuracy	0,50%
Beam angle	$15^\circ \pm 2^\circ$
Resolution	$\leq 3\text{mm}$
Sensitivity adjustment	Teach-in button
Hysteresis	1%
thermal compensation	Yes
Minimum sensing distance (blind zone)	150mm
Linearity error	1%

## Application

Function Principle

Diffuse reflection

## Outputs

Output type	2x PNP
Output Function	NO/NC multifunctions
Switching frequency	3Hz

Response time	500ms
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## Electrical data

Operating Voltage	10 - 30Vdc
No-Load supply current	≤50mA
Load current	100mA
Leakage current	10µA @ 30Vcc
Output voltage drop	2,2Vmax. @ IL=100 mA
Max ripple content	5%
LED indicators	green: echo - yellow: output
Time delay before availability	≤300ms
Short-circuit protection	Yes
Reverse Polarity Protection	Yes
Impulsive Overvoltage Protection	Yes

## Mechanical data

Dimensions	M18 x 1 / L = 83,6mm
Weight	170g
Housing Material	stainless steel AISI 316L
Connections	2m PVC Cable
Tightening torque	50Nm
Operating temperature	- 20°C...+ 70°C
Storage temperature	- 35°C...+ 80° C without freeze
Transducer Frequency	230kHz
Diameter/Dimension	M18

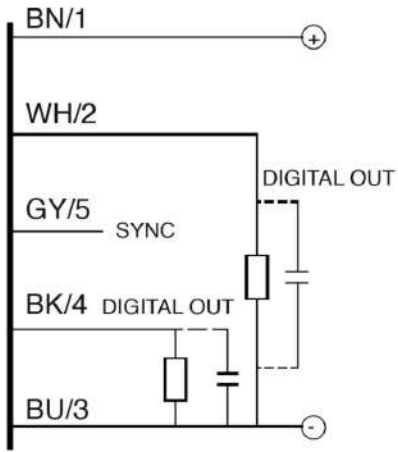
## Test/Approvals

Approvals	CE cULus
EMC compatibility	IEC 60947-5-2
Shocks and vibrations	IEC EN60947-5-2 / 7.4
Degree of protection	IP67

## Accessories

Supplied Accessories	2 nuts M18x1, 2 washers Ø 18
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# ELECTRICAL DIAGRAMS OF THE CONNECTIONS

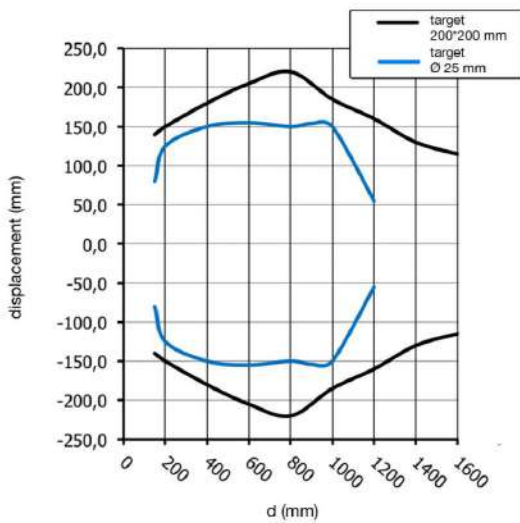


## CONNECTOR



## RESPONSE CURVES

### Disassamento Parallelo



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