



# VM series

Cylindrical M12 in AC inductive sensors



Cylindrical M12 in AC

## features

- Output: cable and M12 plug cable exit
- Models with 2 wires
- IP67 protection degree
- Multivoltage 20 ...253 Vac



## web contents



- Application notes
- Photos
- Catalogue / Manuals



## code description

VM 2 / A 0 - 1 B

series	<b>VM</b>	AC M12 inductive proximity switch
housing	<b>2</b>	Standard body
output state	<b>A</b>	NO output state
	<b>C</b>	NC output state
version	<b>0</b>	2 wires version
distance	<b>1</b>	Shielded standard 2 mm
	<b>2</b>	Unshielded standard 4 mm
connect.	<b>B</b>	Cable exit with tang
	<b>H</b>	M12 plug cable exit



## available models

diameter	installation	distance	plug	distance (mm)	NO	NC
M12	shielded	standard	cable with tang	2	VM2/A0-1B	VM2/C0-1B
			M12		VM2/A0-1H	VM2/C0-1H
	unshielded		cable with tang	4	VM2/A0-2B	VM2/C0-2B
			M12		VM2/A0-2H	VM2/C0-2H



## technical specification

Cylindrical M12 in AC

	VM2/**-1*	VM2/**-2*
		
nominal sensing distance $S_n$	2 mm	4 mm
operating distance	0 ... 1.6 mm	0 ... 3.2 mm
hysteresis	1 ... 20%	
standard target	12x12 mm FE360	
repeatability	5%	
operating voltage	20 ... 253 Vac – 50/60 Hz	
inrush current	7A ( $T_{on} = 10$ ms)	
output current	5 ... 300 mA RMS	
output type	TRIAC – NO or NC	
leakage current	1 mA RMS max.	
switching frequency	25 Hz	
power on delay	200 ms	
ambient temperature range	-25° ... +70°C	
temperature drift of $S_r$	10% $S_r$	
short-circuit protection	-	
LEDs	yellow (output energized)	
protection degree	IP 67 <sup>(1)</sup>	
EMC	in conformity with the EMC Directive according to IEC 60947-5-2	
shocks and vibrations	IEC 60947-5-2	
housing material	nickel-plated brass	
active head material	PBT	
connection	cable 2 m PVC - plug M12	
weight	30 g M12 connector / 100 g cable	
tightening torque	10 Nm	

<sup>(1)</sup> Protection guaranteed only with plug cable well mounted

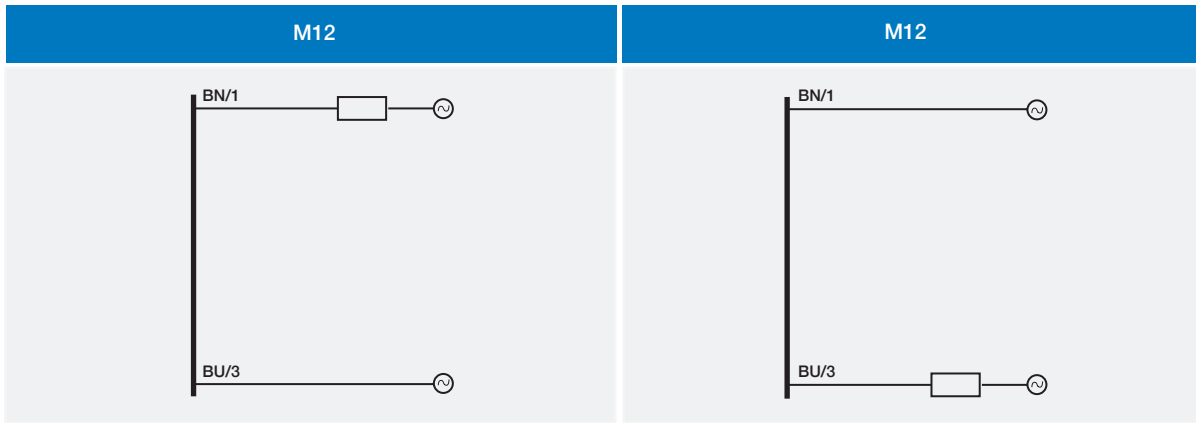
## correction factors

code	steel FE 360	copper	aluminium	brass	stainless steel
VM2/**-1*	1	0.40	0.50	0.55	0.75
VM2/**-2*		0.45		0.60	0.80

## electrical diagrams of connections

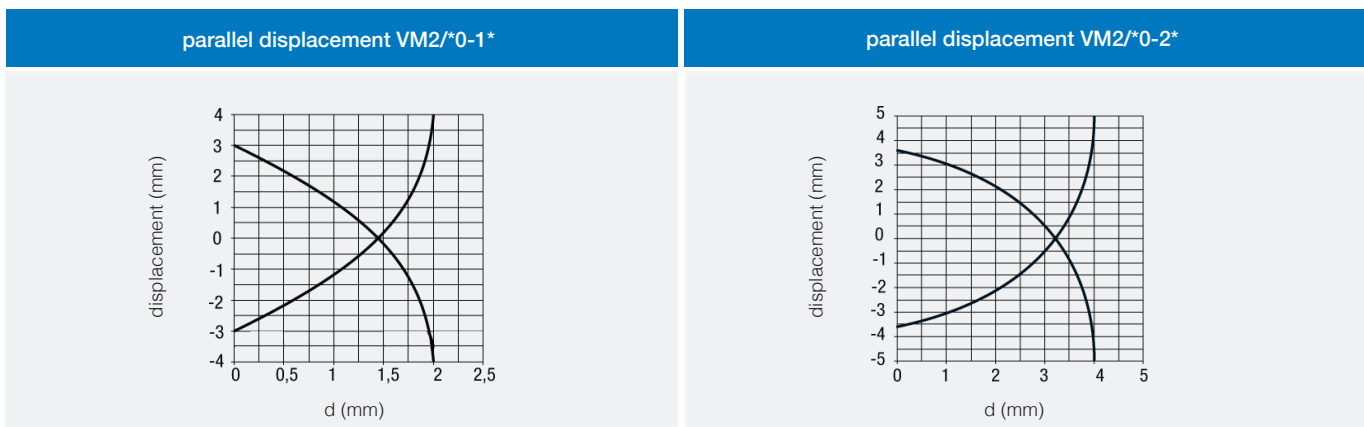


Cylindrical M12 in AC

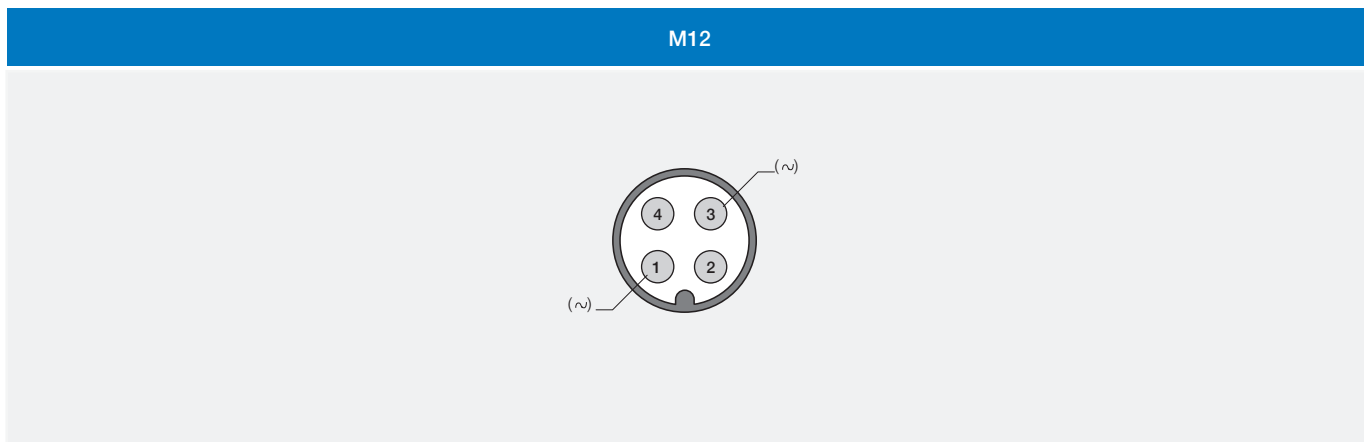


- BN brown
- BU blue
- BK black
- WH white

## response diagram



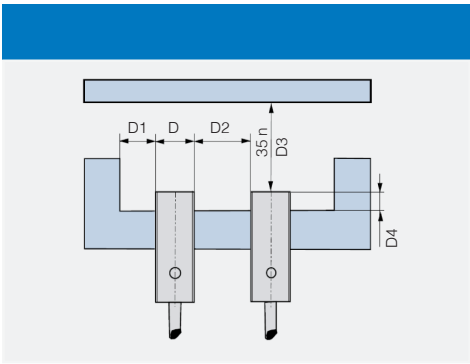
## plug





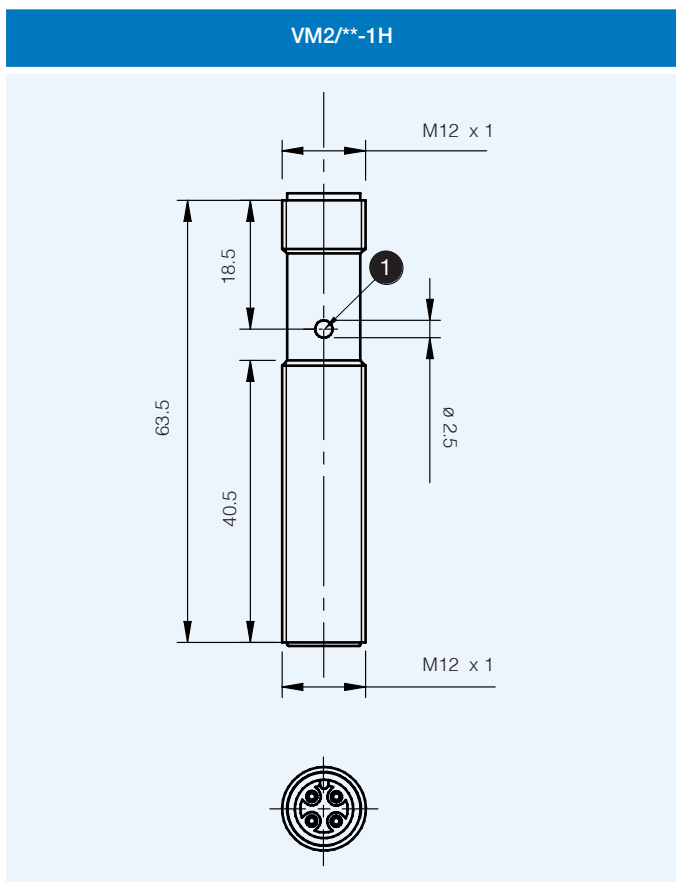
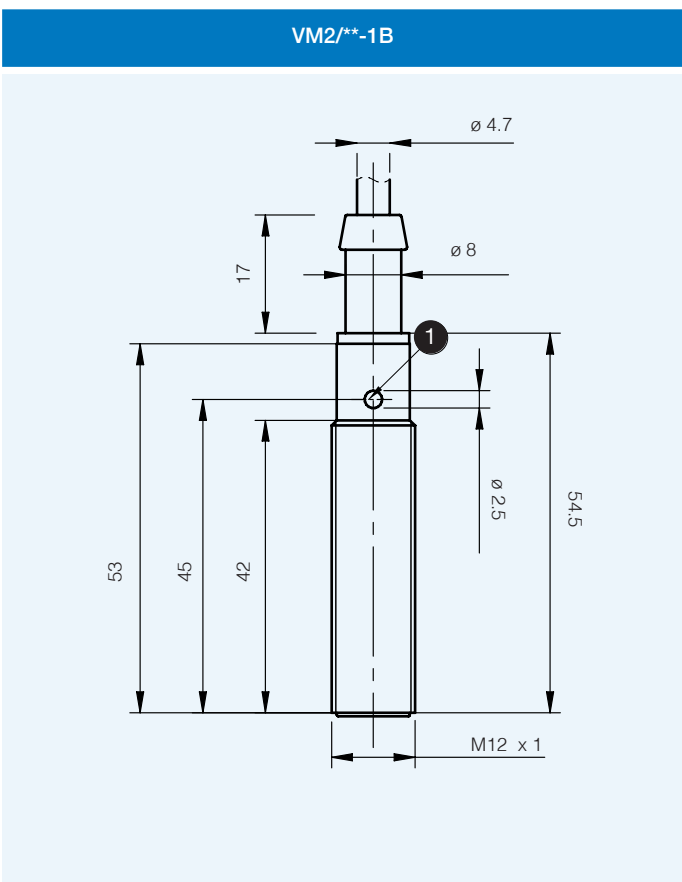
# installation

Cylindrical M12 in AC

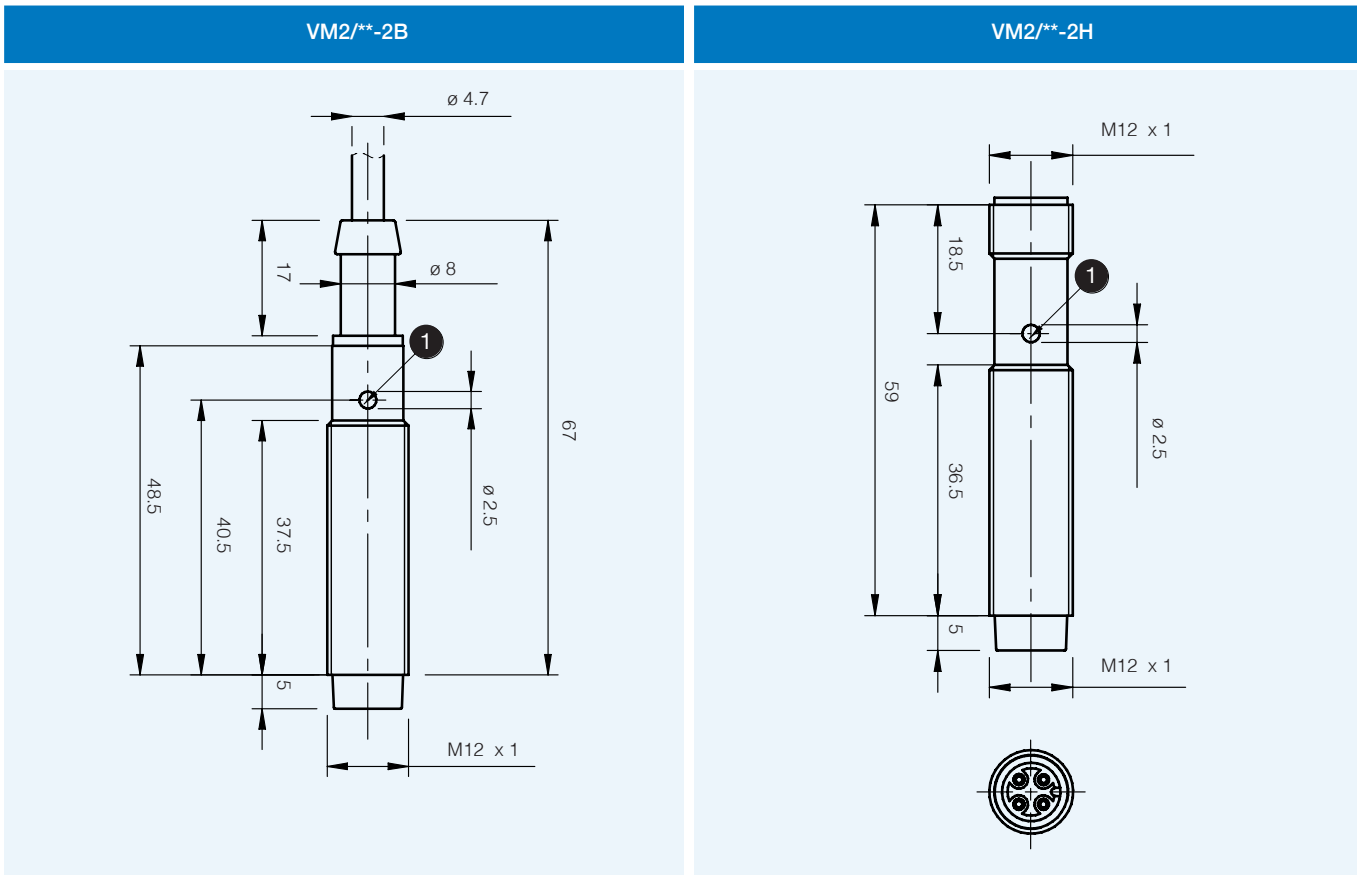


code	D4	D1	D2	D3
VM2/**-1*	≥ 1.2 mm	≥ 2 mm	≥ 12 mm	≥ 6 mm
VM2/**-2*	≥ 5 mm	≥ 4 mm	≥ 24 mm	≥ 12 mm

# dimensions (mm)

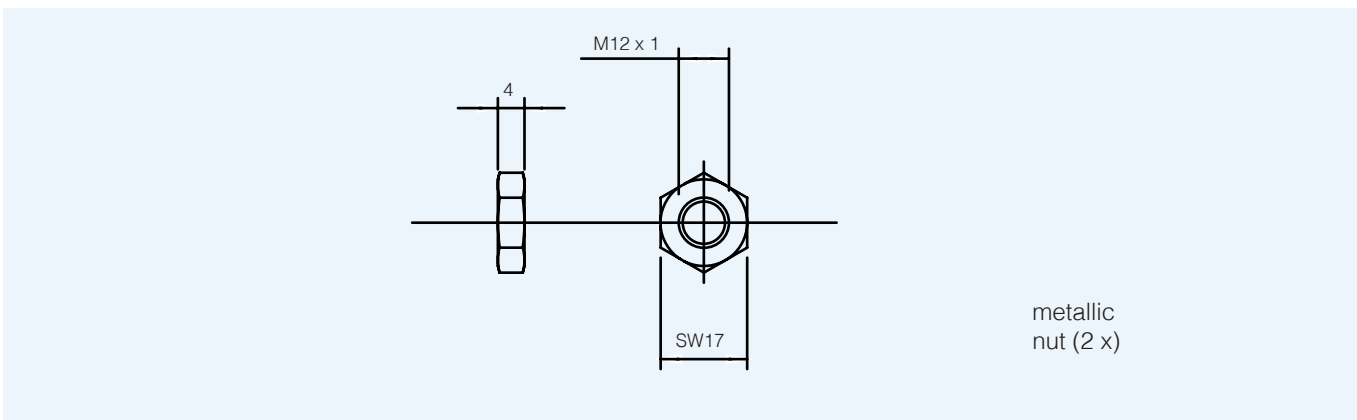


1 LED



### dimensions (mm)

accessories included in all M12 models





## notes

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20 horizontal light blue lines for writing notes.



# VK series

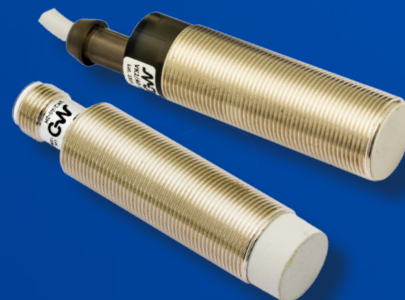
Cylindrical M18 in AC inductive sensors



Cylindrical M18 in AC

## features

- Output: cable and M12 plug cable exit
- Models with 2 wires
- IP 67 protection degree
- Multivoltage 20 ...253 Vac



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## code description

VK 2 / A 0 - 1 B

series	VK	AC M18 inductive proximity switch
housing	2	Standard body
output state	A	NO output state
	C	NC output state
version	0	2 wires version
distance	1	Shielded standard 5 mm
	2	Unshielded standard 8 mm
connect.	B	Cable exit with tang
	H	M12 plug cable exit



## available models

diameter	installation	distance	plug	distance (mm)	NO	NC
M12	shielded	standard	cable with tang	5	VK2/A0-1B	VK2/C0-1B
			M12		VK2/A0-1H	VK2/C0-1H
	unshielded		cable with tang	8	VK2/A0-2B	VK2/C0-2B
			M12		VK2/A0-2H	VK2/C0-2H



## technical specification

Cylindrical M18 in AC

	VK2/**-1*	VK2/**-2*
		
nominal sensing distance $S_n$	5 mm	8 mm
operating distance	0 ... 4 mm	0 ... 6.5 mm
hysteresis	1 ... 20%	
standard target	18x18 mm FE360	24x24 mm FE360
repeatability	5%	
operating voltage	20 ... 253 Vac – 50/60 Hz	
inrush current	7A (Ton = 10 ms)	
output current	5 ... 300 mA RMS	
output type	TRIAC – NO or NC	
leakage current	1 mA RMS max.	
switching frequency	25 Hz	
power on delay	200 ms	
ambient temperature range	-25° ... +70°C	
temperature drift of $S_r$	10% $S_r$	
short-circuit protection	-	
LEDs	yellow (output energized)	
protection degree	IP 67 <sup>(1)</sup>	
EMC	in conformity with the EMC Directive according to IEC 60947-5-2	
shocks and vibrations	IEC 60947-5-2	
housing material	nickel-plated brass	
active head material	PBT	
connection	cable 2 m PVC - plug M12	
weight	30 g M12 connector 107 g cable	
tightening torque	25 Nm	

<sup>(1)</sup> Protection guaranteed only with plug cable well mounted

## correction factors

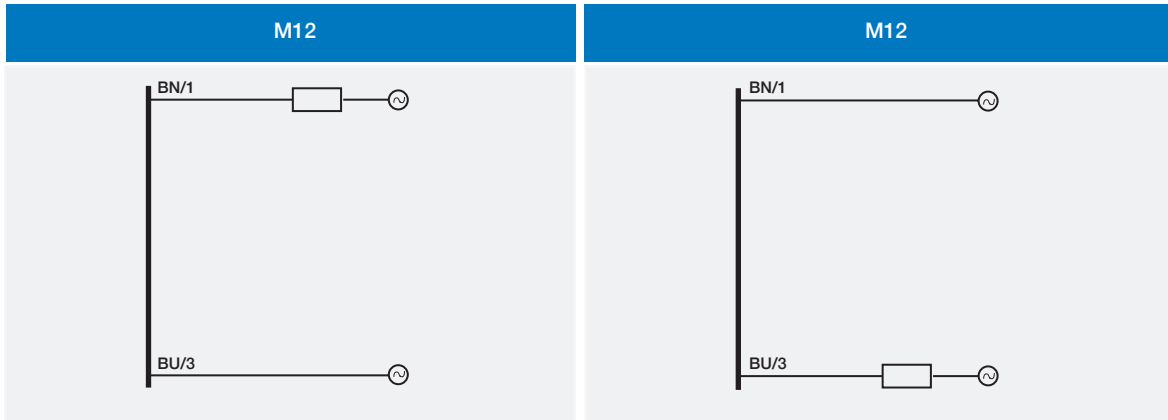
code	steel FE 360	copper	aluminium	brass	stainless steel
VK2/**-1*	1	0.35	0.40	0.50	0.80
VK2/**-2*		0.40	0.45	0.55	0.95



## electrical diagrams of connections

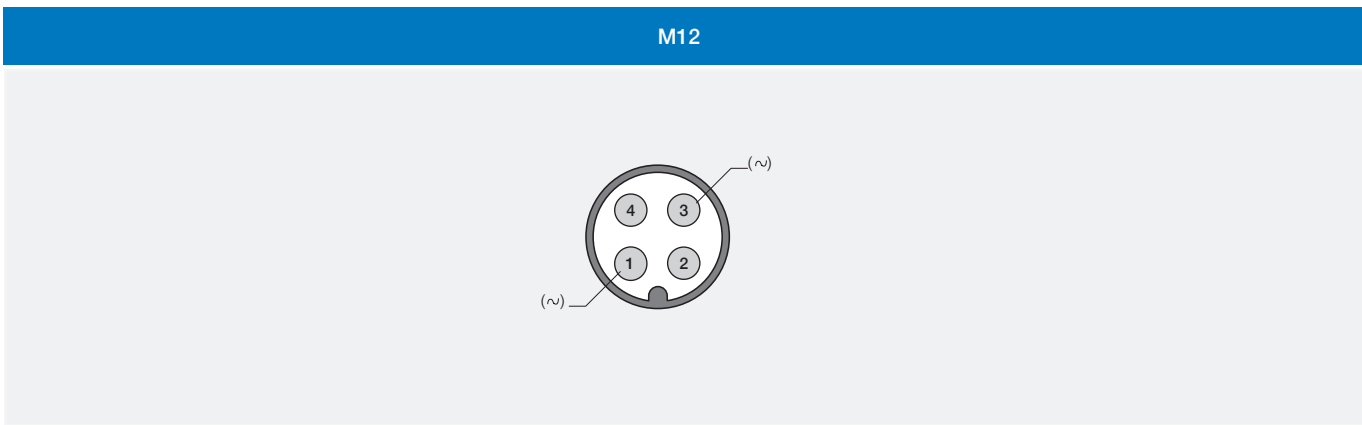


Cylindrical M18 in AC

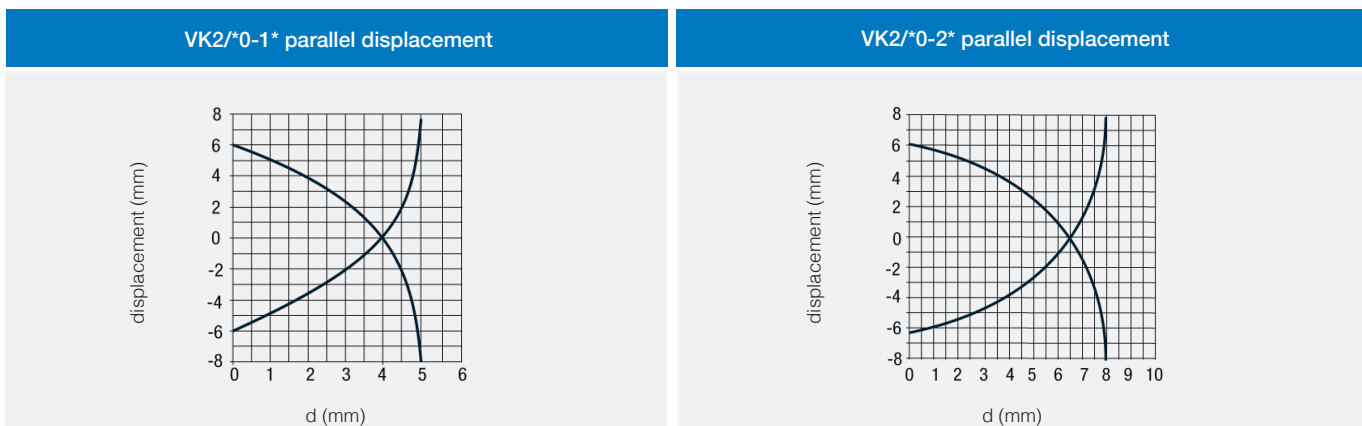


- BN brown
- BU blue
- BK black
- WH white

## plug



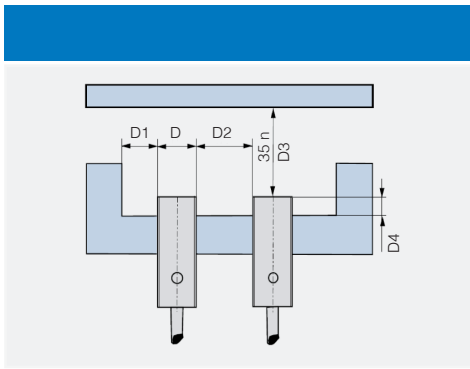
## response diagram





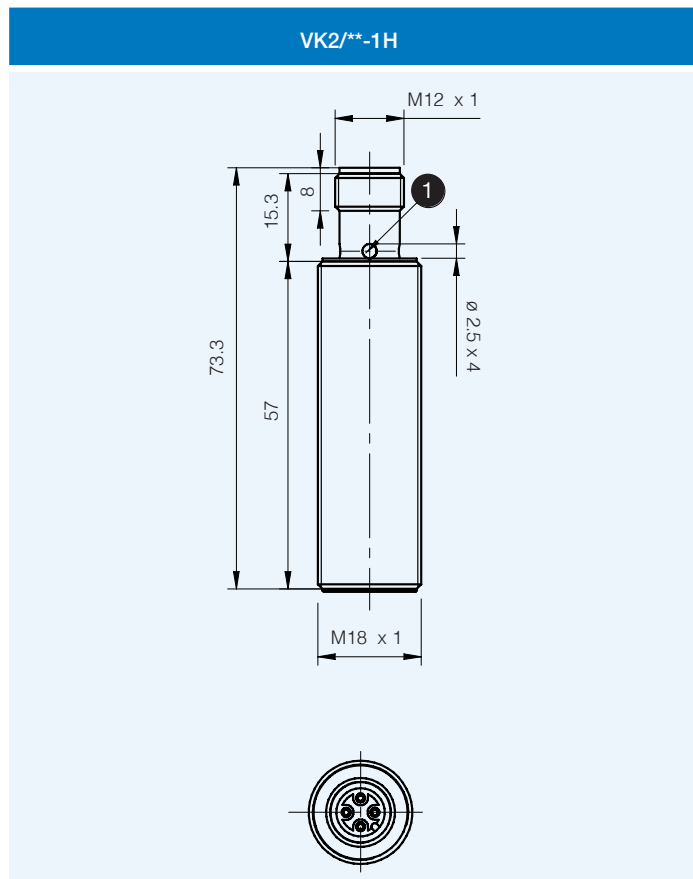
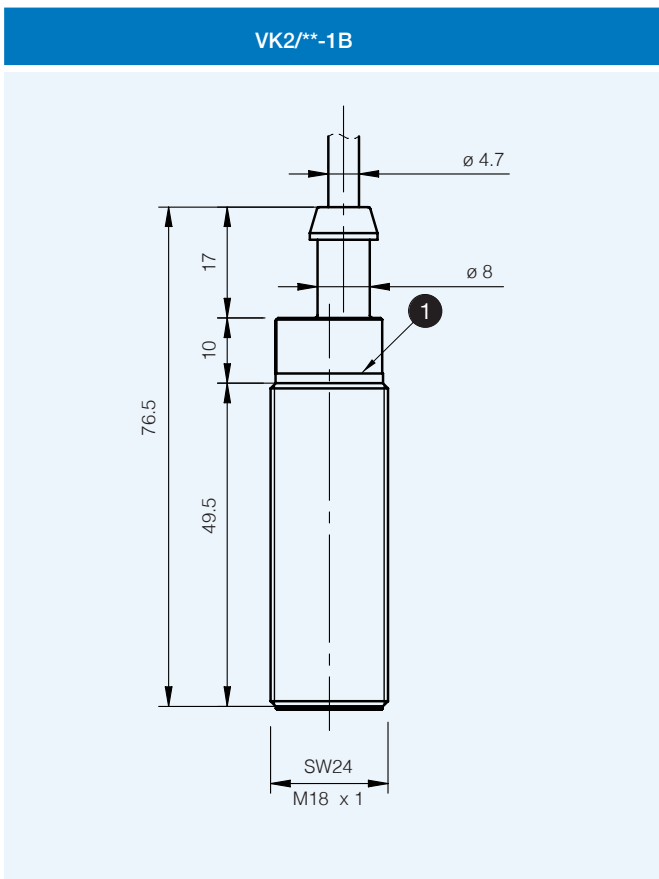
Cylindrical M18 in AC

## installation



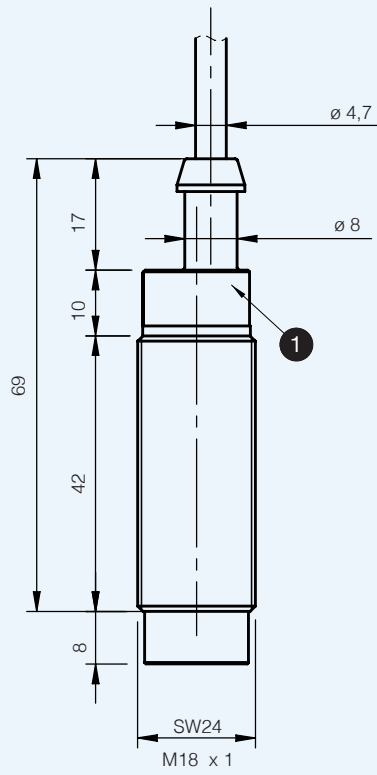
code	D4	D1	D2	D3
VK2/**-1*	≥ 1.35 mm	≥ 5 mm	≥ 18 mm	≥ 15 mm
VK2/**-2*	≥ 8.5 mm	≥ 8 mm	≥ 36 mm	≥ 24 mm

## dimensions (mm)

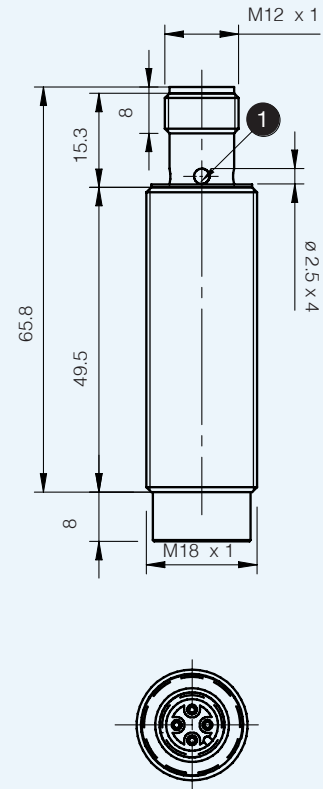


1 LED

VK2/\*\*-2B



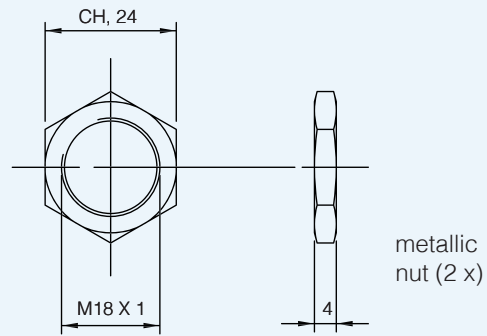
VK2/\*\*-2H



Cylindrical M18 in AC

## dimensions (mm)

accessories included in all M18 models





notes

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20 horizontal light blue lines for writing notes.



# VT series

Cylindrical M30 in AC inductive sensors



Cylindrical M30 in AC

## features

- Output: cable and M12 plug cable exit
- Models with 2 wires
- IP 67 protection degree
- Multivoltage 20 ...253 Vac



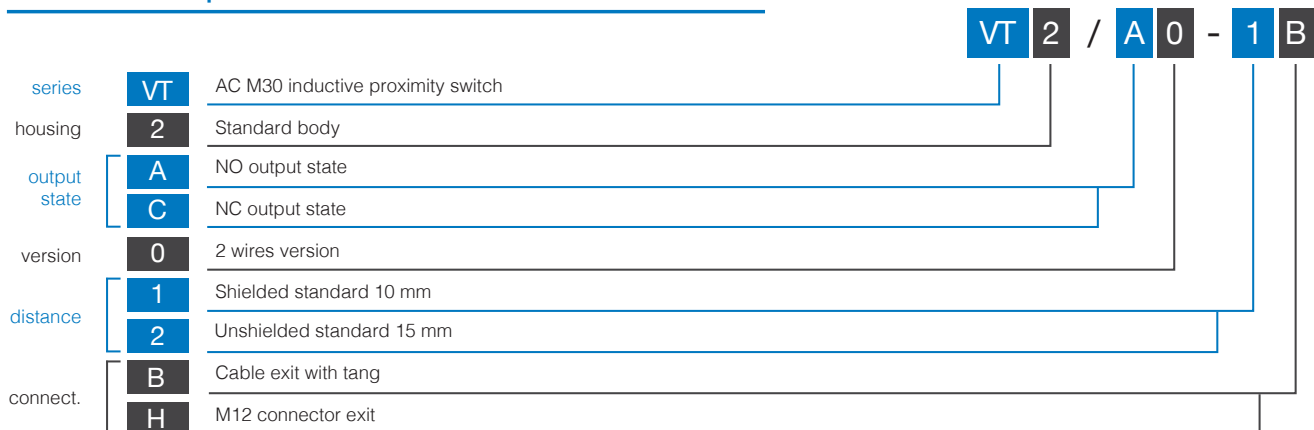
## web contents



- Application notes
- Photos
- Catalogue / Manuals



## code description





## available models

diameter	installation	distance	connection	distance (mm)	NO	NC
M12	shielded	standard	wire with tang	10	VT2/A0-1B	VT2/C0-1B
			M12		VT2/A0-1H	VT2/C0-1H
	unshielded		wire with tang	15	VT2/A0-2B	VT2/C0-2B
			M12		VT2/A0-2H	VT2/C0-2H



## technical specification

Cylindrical M30 in AC

	VT2/**-1*	VT2/**-2*
		
nominal sensing distance	10 mm	15 mm
operating distance	0 ... 8.1 mm	0 ... 12.1 mm
hysteresis	1 ... 20%	
standard target	12x12 mm FE360	
repeatability	5%	
operating voltage	20 ... 253 Vac – 50/60 Hz	
inrush current	7A (Ton = 10 ms)	
output current	5 ... 300 mA RMS	
output type	TRIAC – NO or NC	
leakage current	1 mA RMS max.	
switching frequency	25 Hz	
power on delay	200 ms	
ambient temperature range	-25° ... +70°C	
temperature drift of Sr	10% Sr	
short-circuit protection	-	
LEDs	yellow (output energized)	
protection degree	IP 67 <sup>(1)</sup>	
EMC	in conformity with the EMC Directive according to IEC 60947-5-2	
shocks and vibrations	IEC 60947-5-2	
housing material	nickel-plated brass	
active head material	PBT	
connection	cable or M12 plug	
weight	30 g M12 connector 100 g cable	
tightening torque	50 Nm	

<sup>(1)</sup> Protection guaranteed only with plug cable well mounted

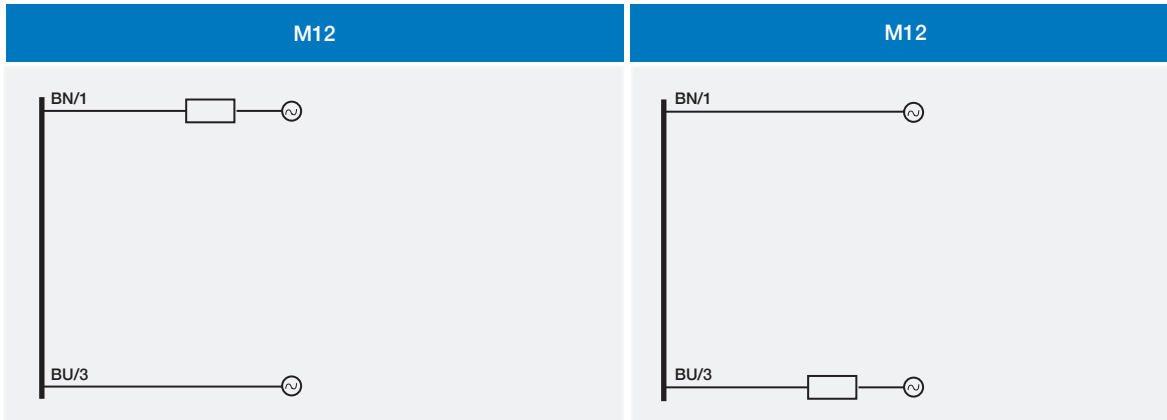
## correction factors

code	steel FE 360	copper	aluminium	brass	stainless steel
VT2/**-1*	1	0,40	0,50	0,55	0,75
VT2/**-2*		0,45		0,60	0,80

## electrical diagrams of connections

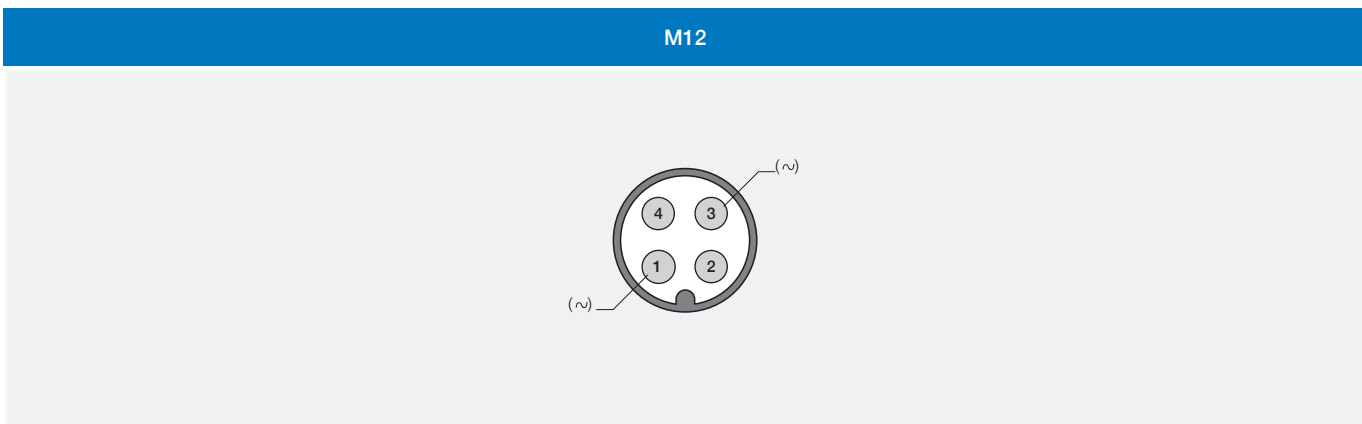


Cylindrical M30 in AC

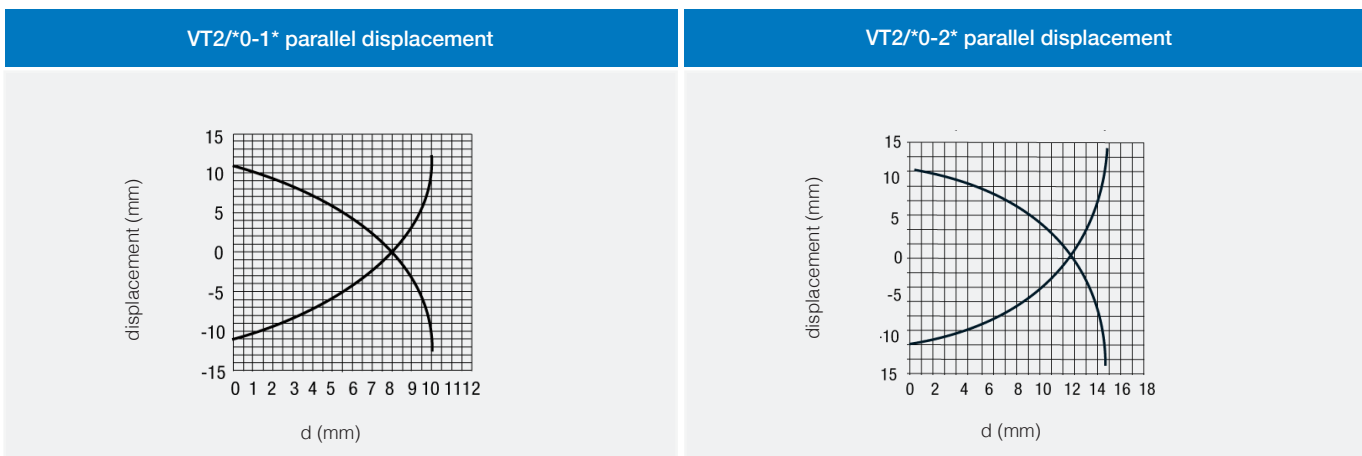


- BN** brown
- BU** blue
- BK** black
- WH** white

## plug



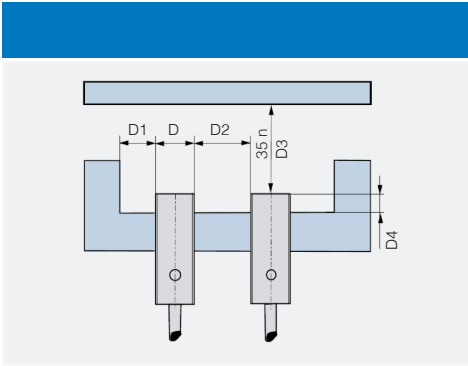
## response diagram





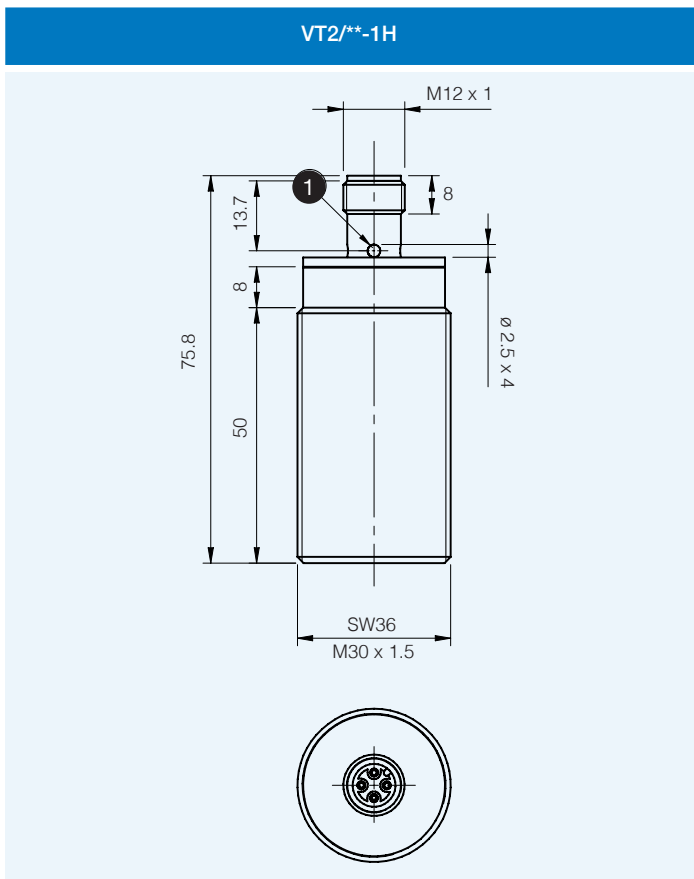
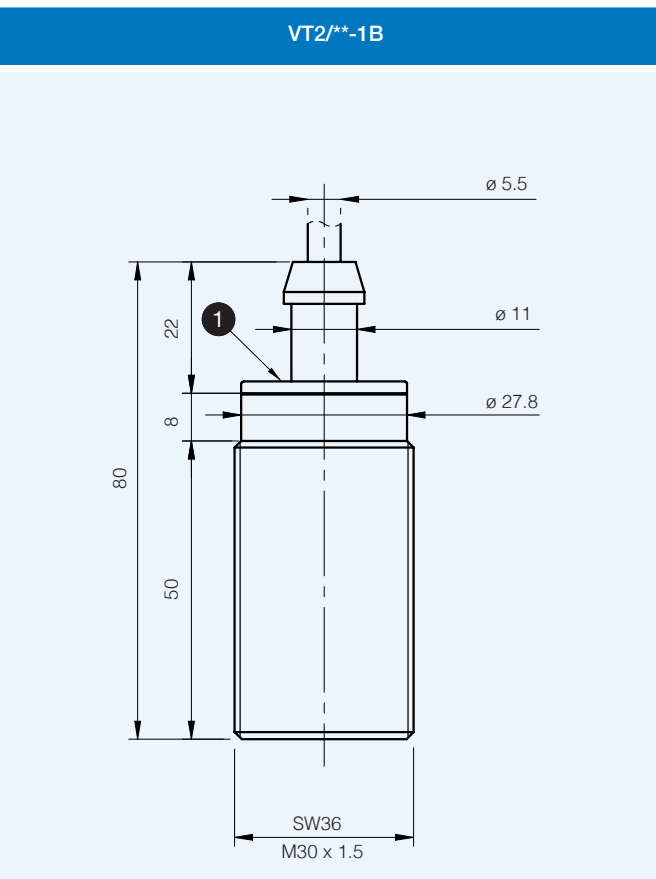
Cylindrical M30 in AC

# installation



code	D4	D1	D2	D3
VT2/**-1*	≥ 1.2 mm	≥ 2 mm	≥ 12 mm	≥ 6 mm
VT2/**-2*	≥ 5 mm	≥ 4 mm	≥ 24 mm	≥ 12 mm

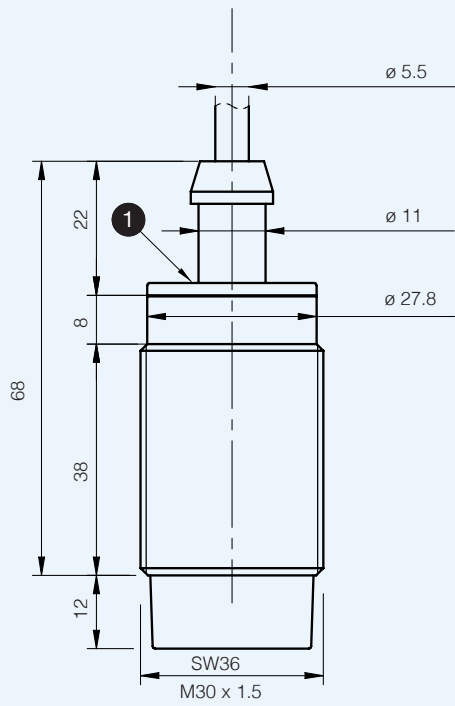
# dimensions



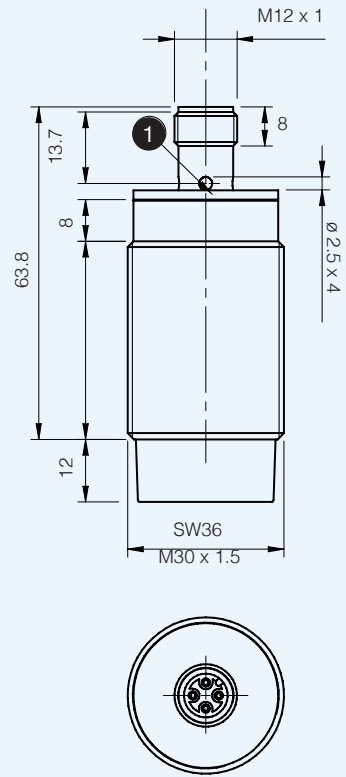
**1** LED



VT2/\*\*-2B



VT2/\*\*-2H



Cylindrical M30 in AC

1 LED

### dimensions (mm)

accessories included in all models

