



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	VM	AC M12 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 2 mm						
	2	Unshielded standard 4 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	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

VM

technical specification

	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 (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 ⁽¹⁾	
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	

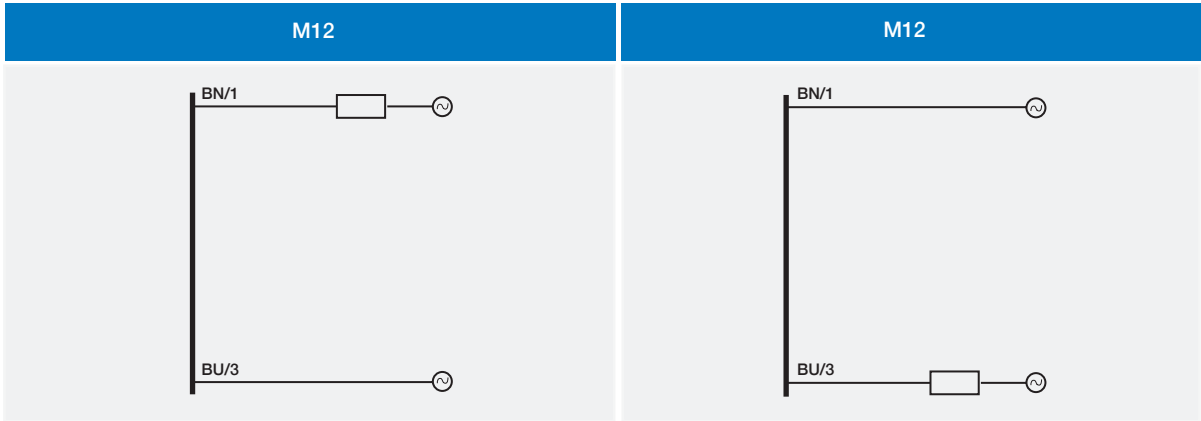
⁽¹⁾ Protection guaranteed only with plug cable well mounted

correction factors

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

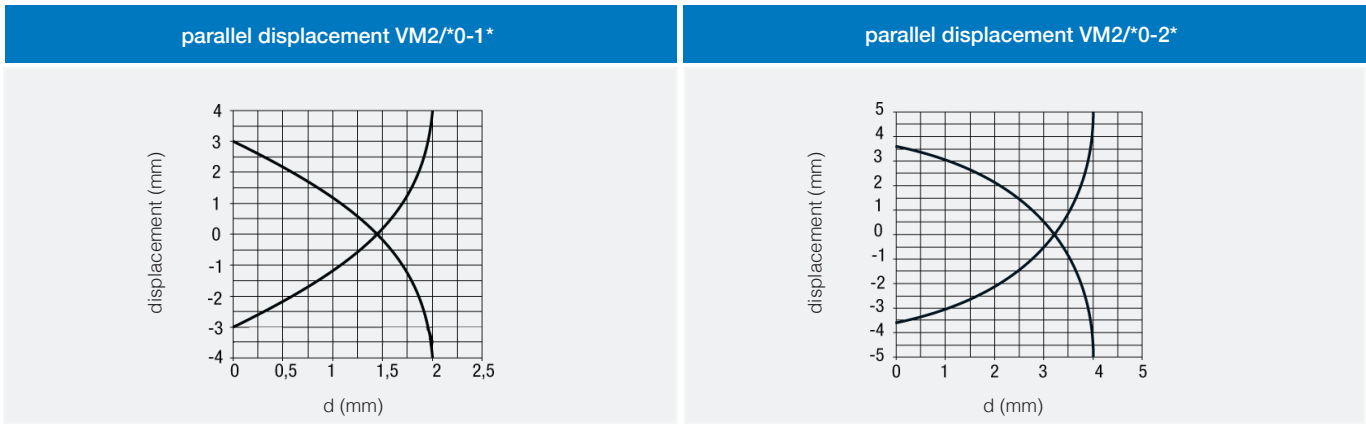
electrical diagrams of connections

2 wires versions

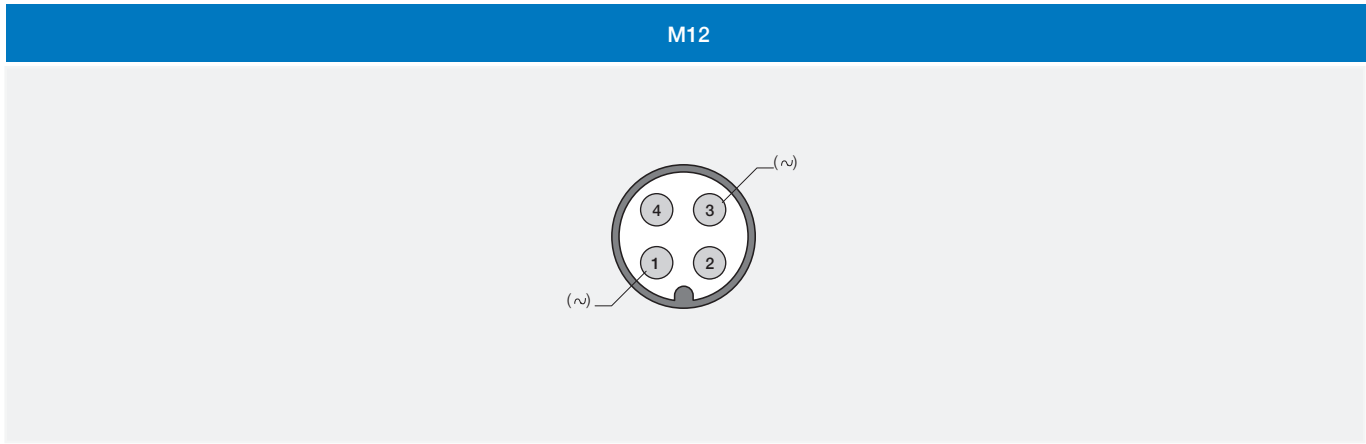


Cylindrical M12 in AC

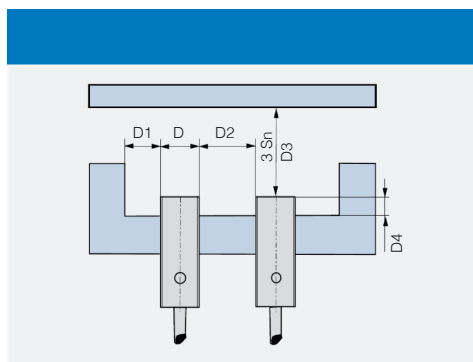
response diagram



plug

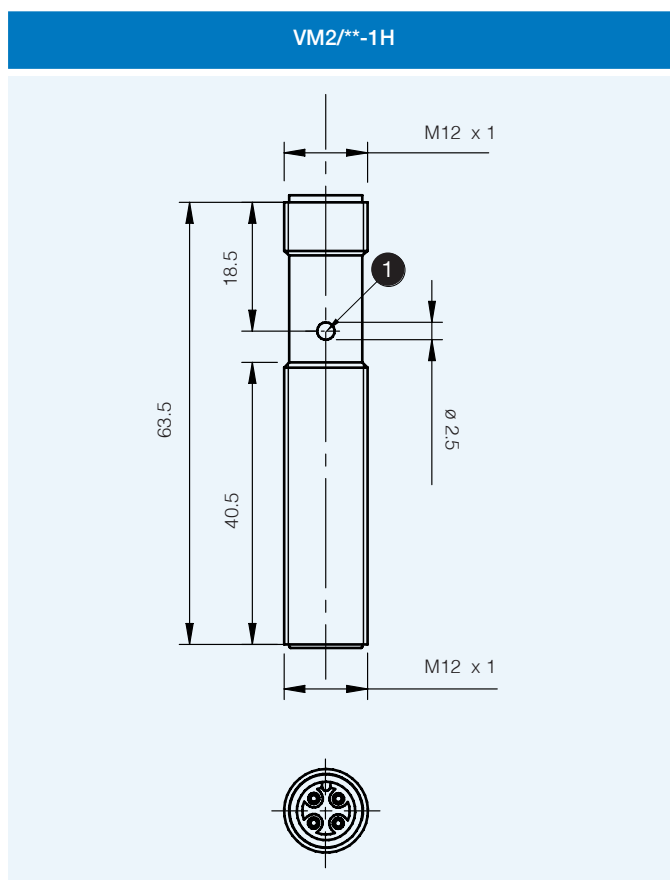
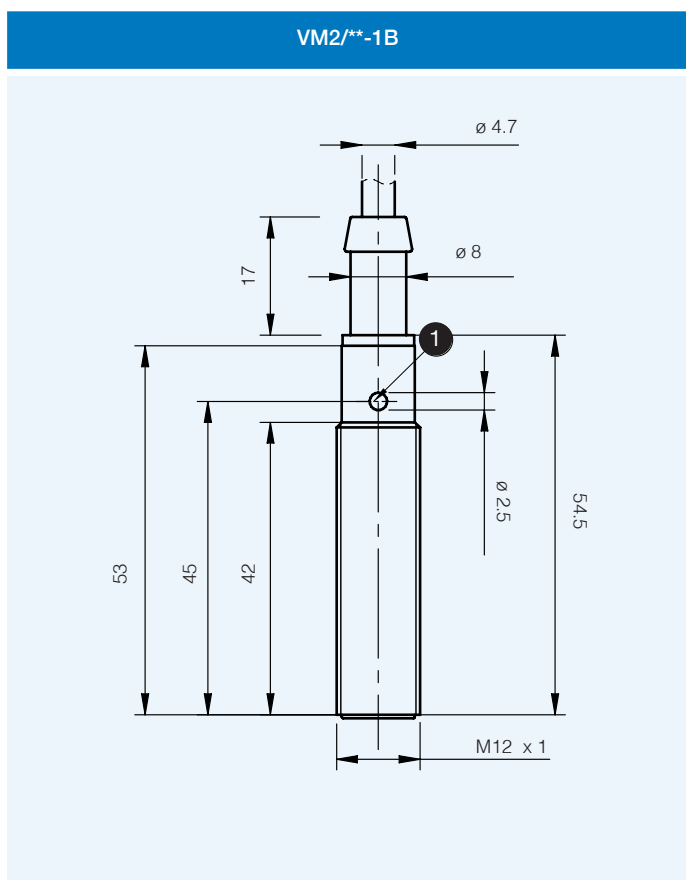


VM



code	D4	D1	D2	D3
VM2/*-1*	≥ 0 mm	≥ 2 mm	≥ 12 mm	≥ 6 mm
VM2/*-2*	≥ 6 mm	≥ 4 mm	≥ 24 mm	≥ 12 mm

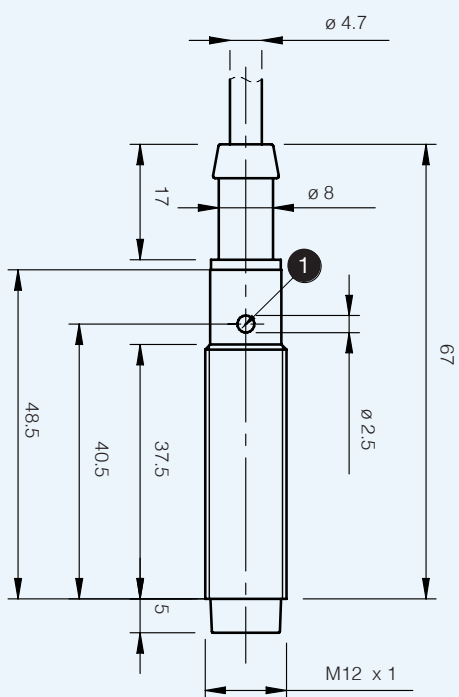
dimensions (mm)



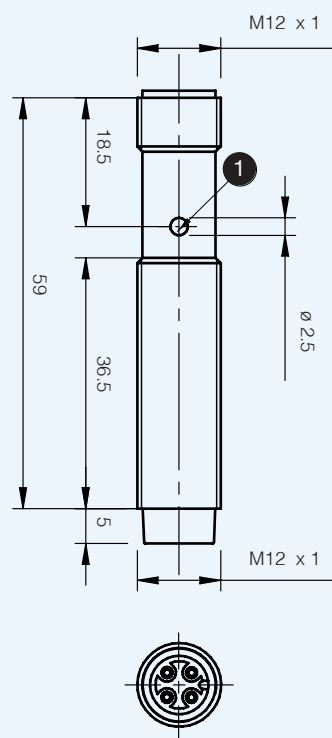
1 LED



VM2/**-2B

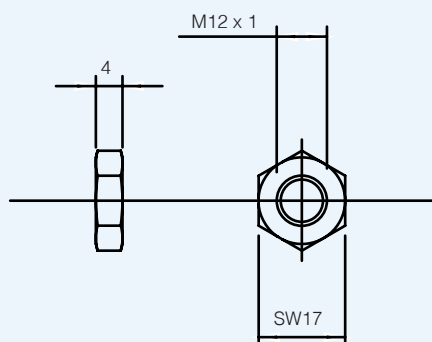


VM2/**-2H



dimensions (mm)

accessories included in all M12 models



metallic
nut (2 x)



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
M18	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

	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	7 A ($T_{on} = 10$ 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 ⁽¹⁾	
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	

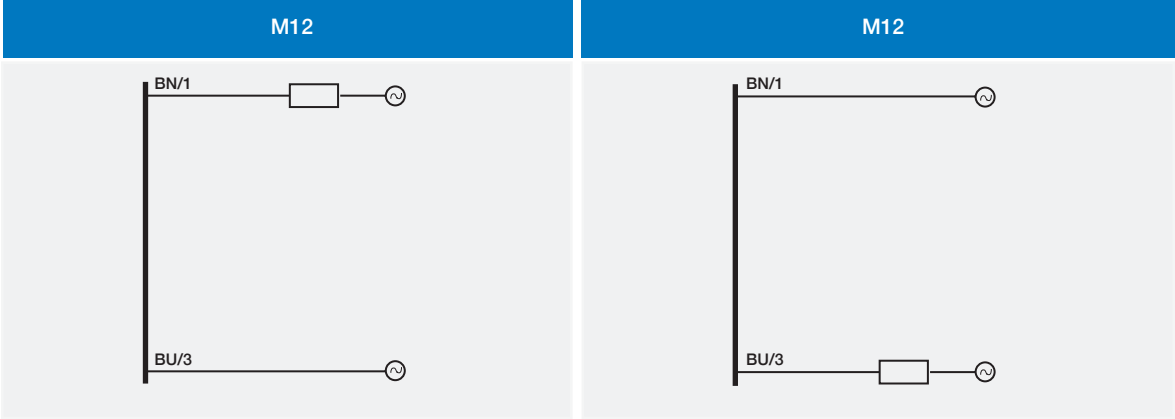
⁽¹⁾ Protection guaranteed only with plug cable well mounted

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

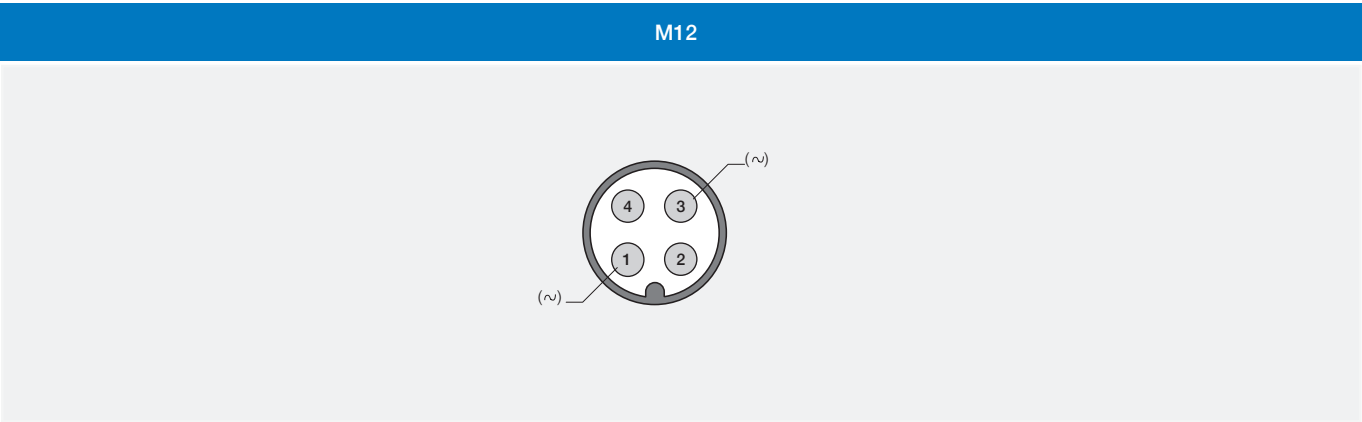
electrical diagrams of connections

2 wires versions

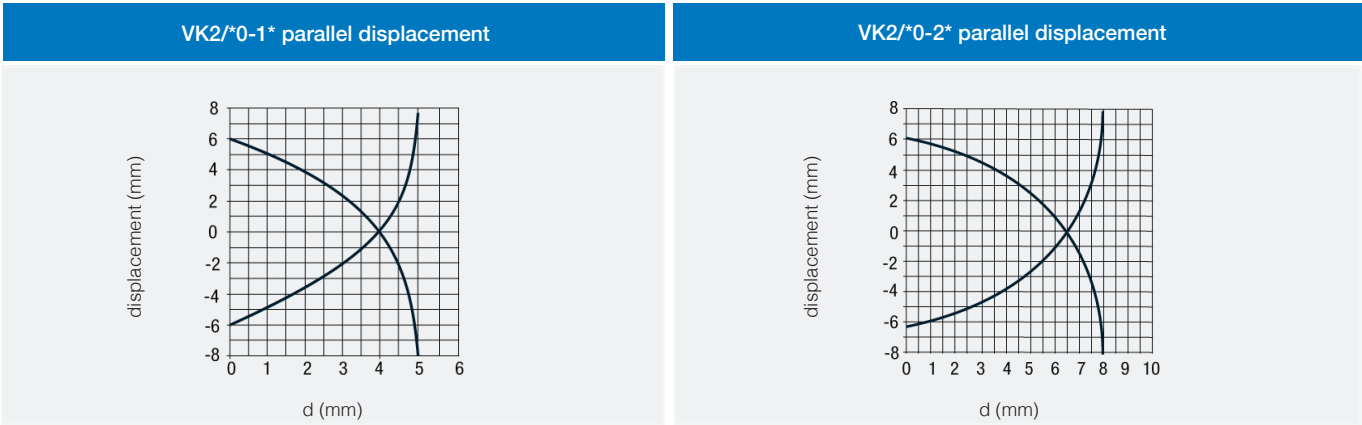


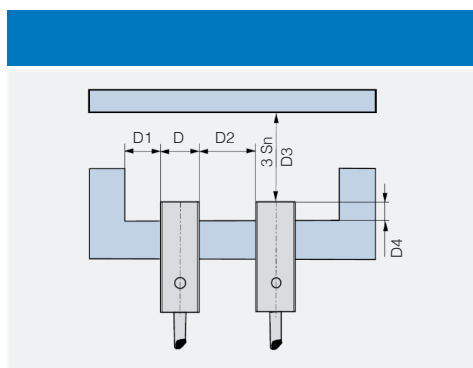
- BN brown
- BU blue
- BK black
- WH white

plug



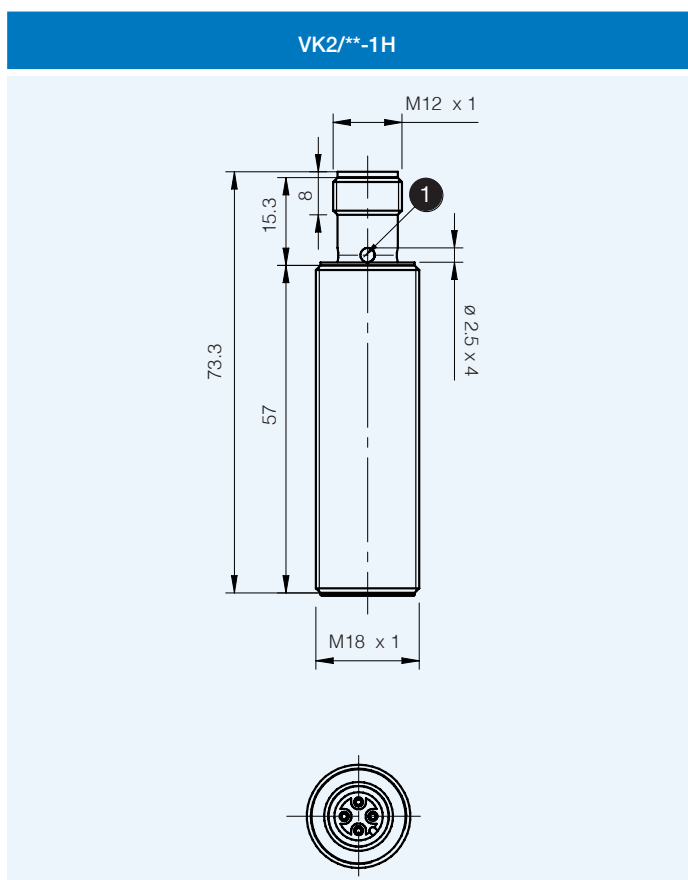
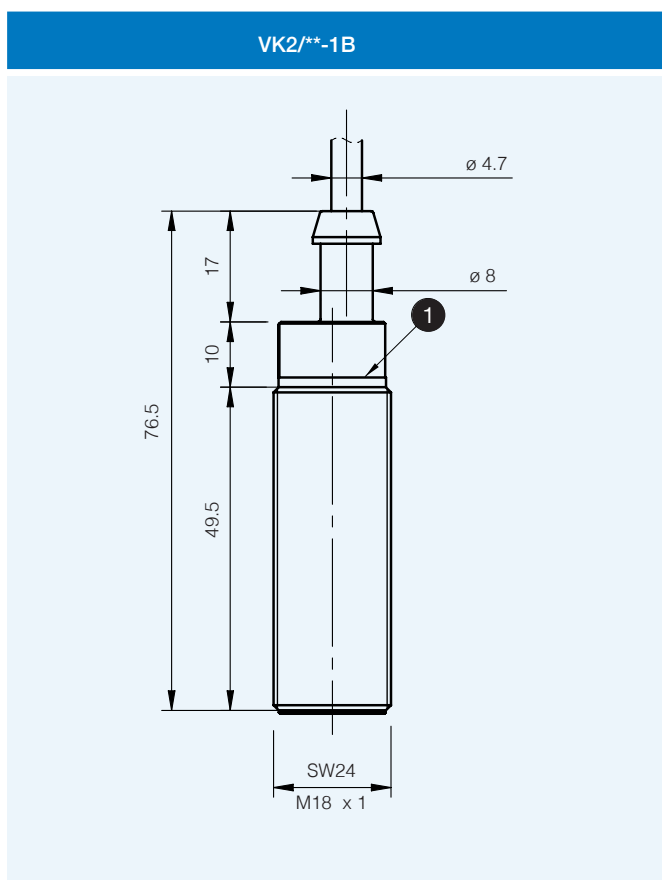
response diagram





code	D4	D1	D2	D3
VK2/*-1*	≥ 0 mm	≥ 5 mm	≥ 18 mm	≥ 15 mm
VK2/*-2*	≥ 8 mm	≥ 18 mm	≥ 36 mm	≥ 24 mm

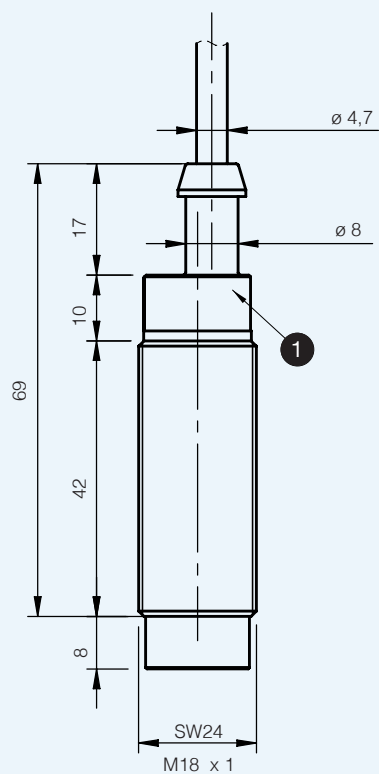
dimensions (mm)



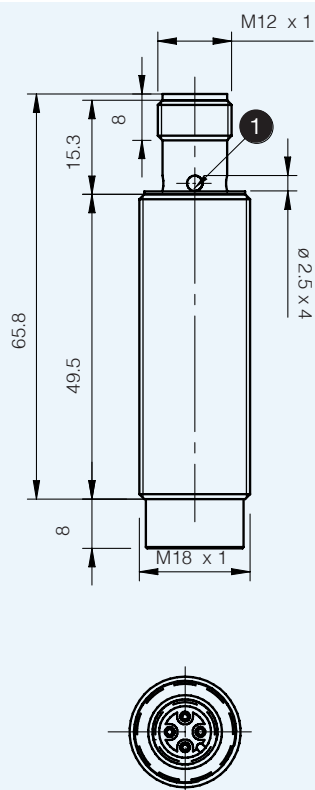
1 LED



VK2/**-2B

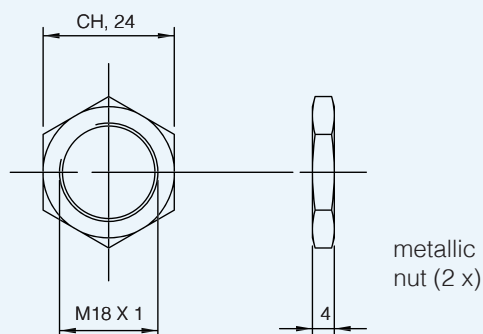


VK2/**-2H



dimensions (mm)

accessories included in all M18 models





notes



VT series

Cylindrical M30 in AC inductive sensors



features

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



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Cylindrical M30 in AC

code description

	VT	2	/	A	0	-	1	B
series	VT	AC M30 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 10 mm						
	2	Unshielded standard 15 mm						
connect.	B	Cable exit with tang						
	H	M12 connector exit						

available models

diameter	installation	distance	connection	distance (mm)	NO	NC
M30	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

VT

technical specification

	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	30X30 mm FE360	45X45 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 ⁽¹⁾	
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	

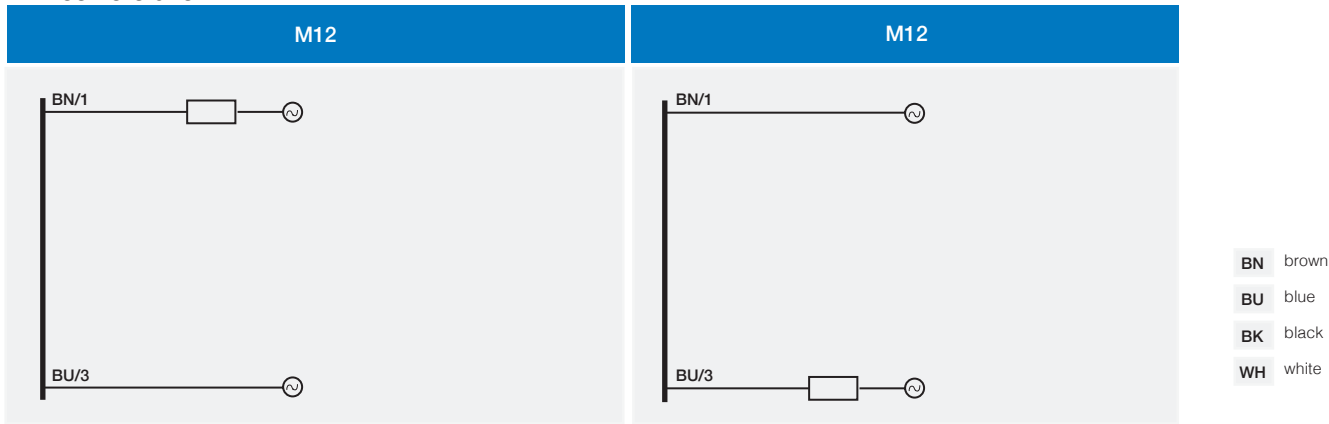
⁽¹⁾ Protection guaranteed only with plug cable well mounted

correction factors

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

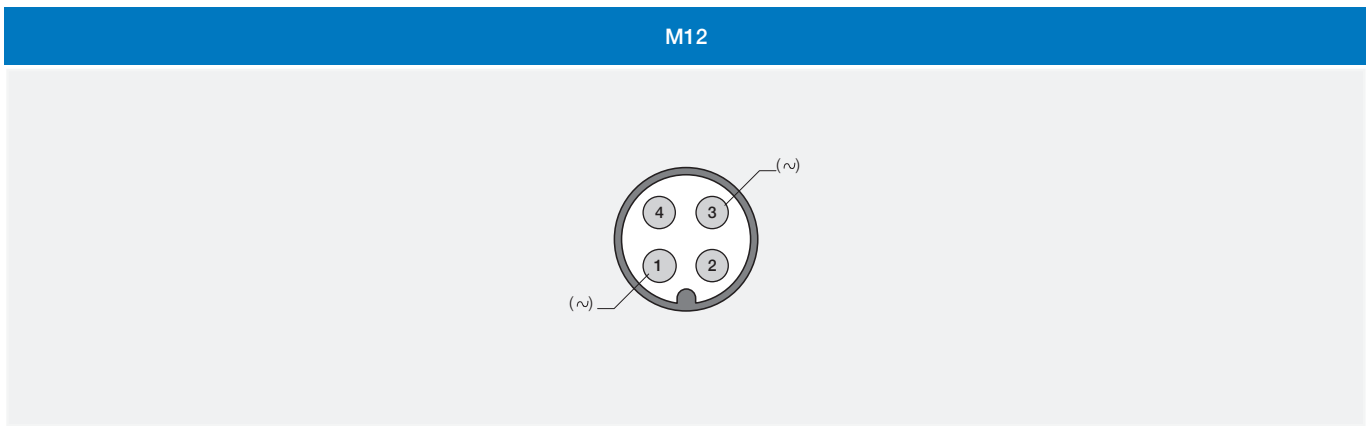
electrical diagrams of connections

2 wires versions

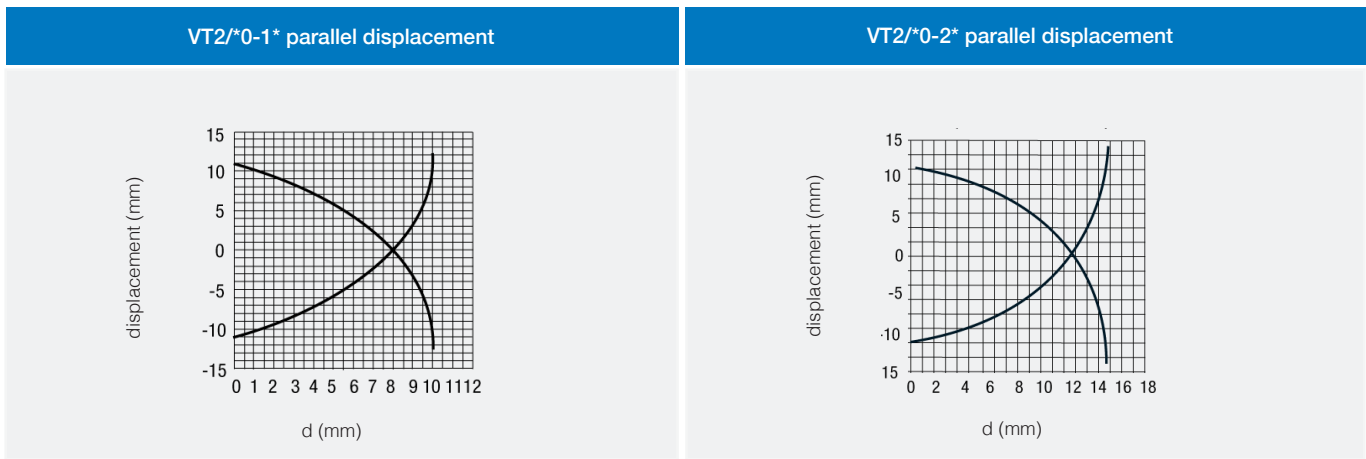


Cylindrical M30 in AC

plug

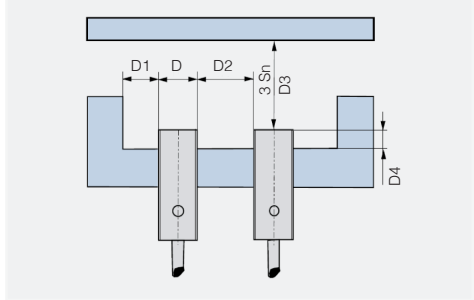


response diagram

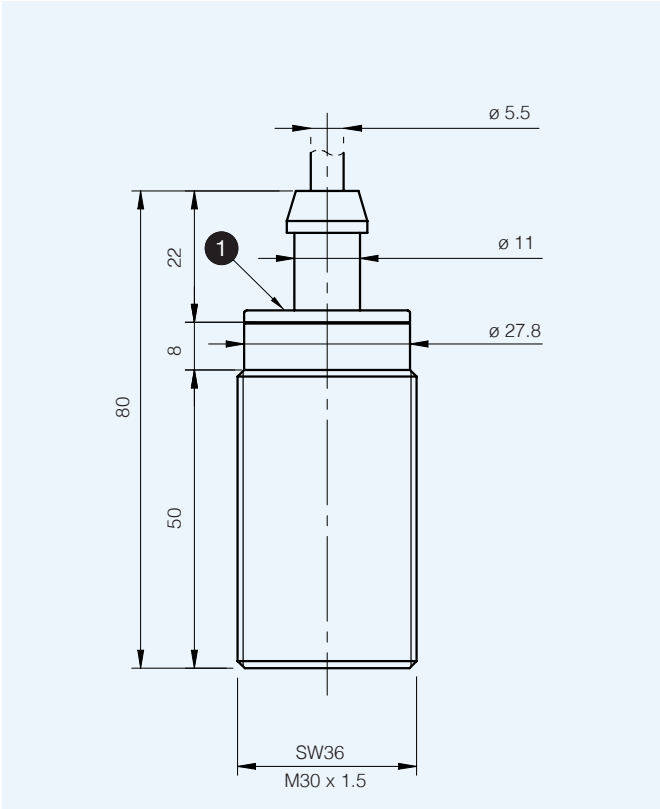
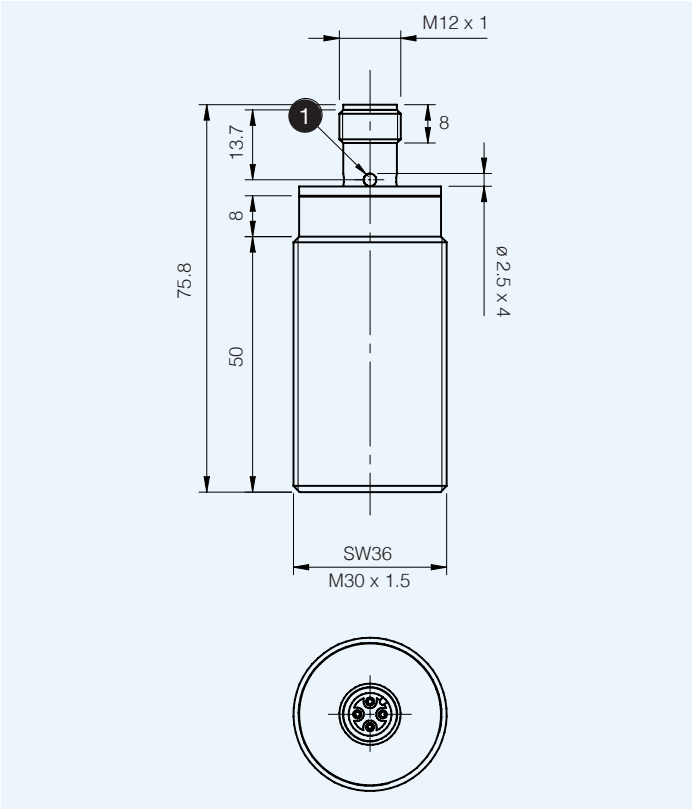


VT

installation

	code	D4	D1	D2	D3
	VT2/**-1*	≥ 0 mm	≥ 10 mm	≥ 30 mm	≥ 30 mm
	VT2/**-2*	≥ 18 mm	≥ 15 mm	≥ 45 mm	≥ 45 mm

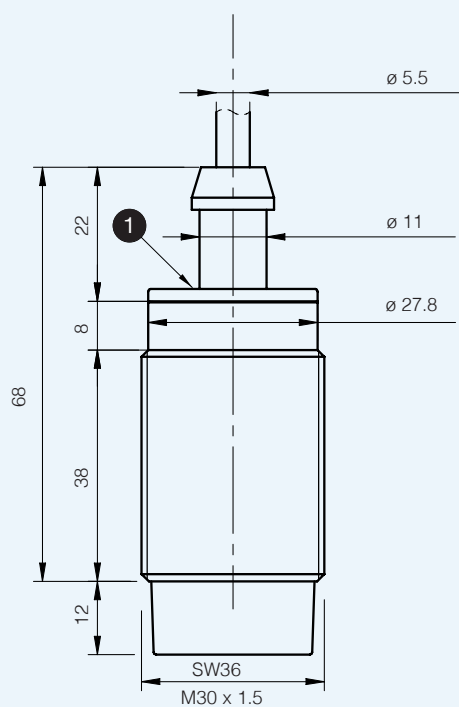
dimensions

VT2/**-1B	VT2/**-1H
	

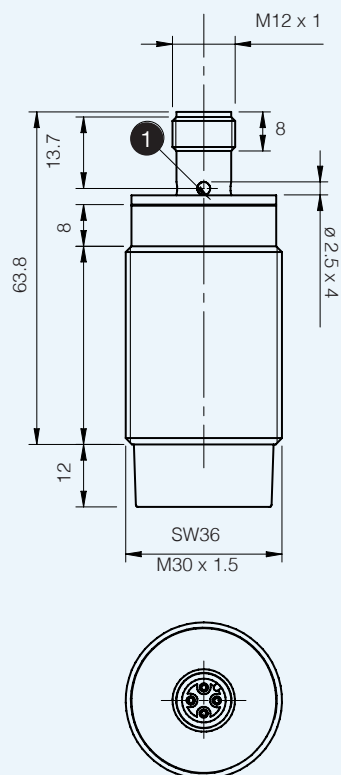
1 LED



VT2/**-2B



VT2/**-2H



1 LED

dimensions (mm)

accessories included in all models

