



**Model Number**

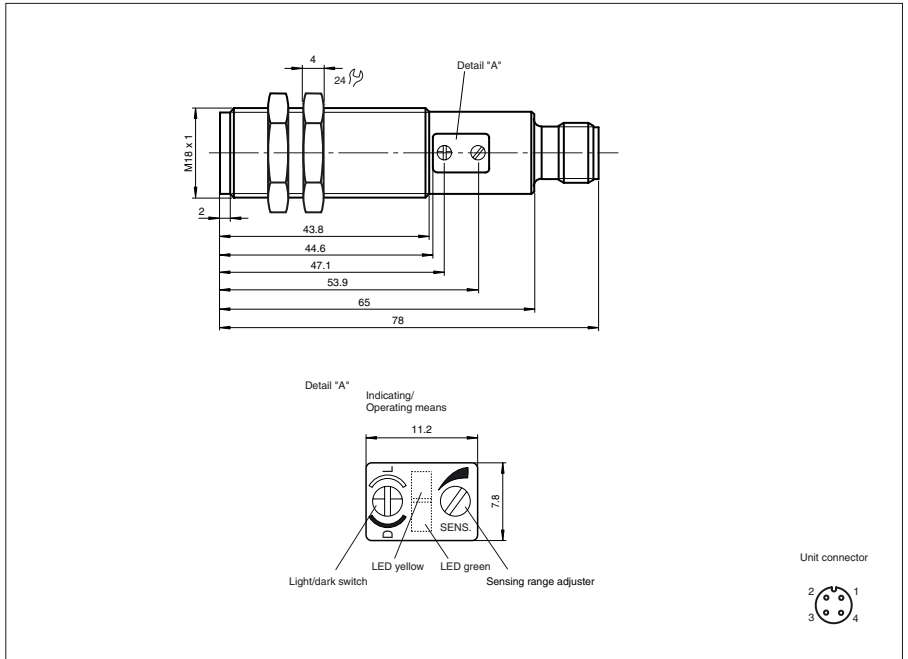
**VT18-8-H-120-M/32/40a/65b/118**

Background suppression sensor with 4-pin, M12 x 1 connector

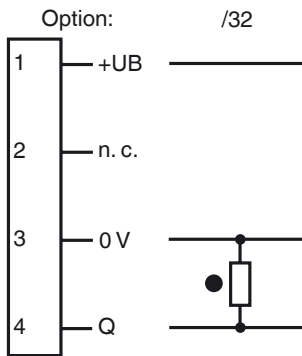
**Features**

- Adjustable background suppression
- Array control panel with highly visible LED display
- Flashing power on LED in case of short-circuit
- Multiple device installation possible, no mutual interference (no cross-talk)
- Not sensitive to ambient light, even with switched energy saving lamps
- Protection class II

**Dimensions**

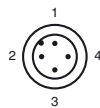


**Electrical connection**



○ = Light on  
● = Dark on

**Pinout**



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

## Technical data

### General specifications

Detection range	20 ... 120 mm , adjustable
Detection range min.	20 ... 40 mm
Detection range max.	20 ... 120 mm
Light source	LED
Light type	modulated visible red light 660 nm
Black/White difference (6 %/90 %)	< 10 % at a distance of 120 mm
Diameter of the light spot	approx. 6 mm at a distance of 120 mm
Optical face	frontal
Ambient light limit	30000 Lux

### Functional safety related parameters

MTTF <sub>d</sub>	860 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Indicators/operating means

Operation indicator	LED green, flashes in case of short-circuit
Function indicator	LED yellow, lights up with receiver lit
Control elements	Sensing range adjuster, light-on/dark-on changeover switch

### Electrical specifications

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Ripple		10 %
No-load supply current	I <sub>0</sub>	< 35 mA
Protection class		II , rated voltage ≤ 50 V AC with pollution degree 1-2 according to IEC 60664-1

### Output

Switching type	light/dark on, switchable	
Signal output	1 PNP output, short-circuit protected, reverse polarity protected, open collector	
Switching voltage	30 V DC	
Switching current	max. 200 mA	
Switching frequency	f	500 Hz
Response time		1 ms

### Conformity

Product standard	EN 60947-5-2
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### Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-30 ... 70 °C (-22 ... 158 °F)

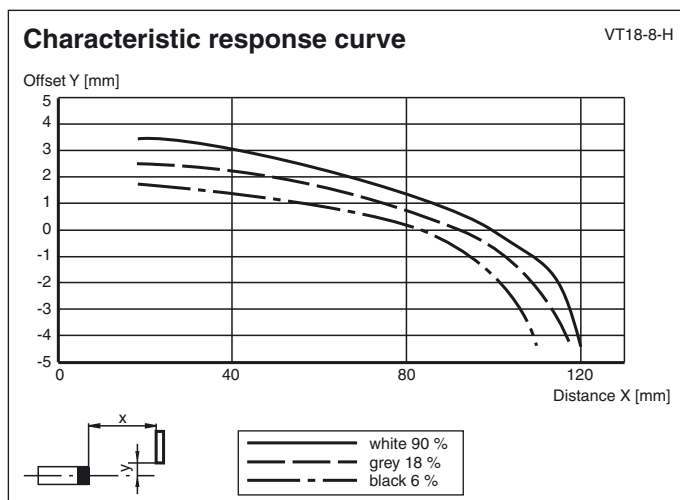
### Mechanical specifications

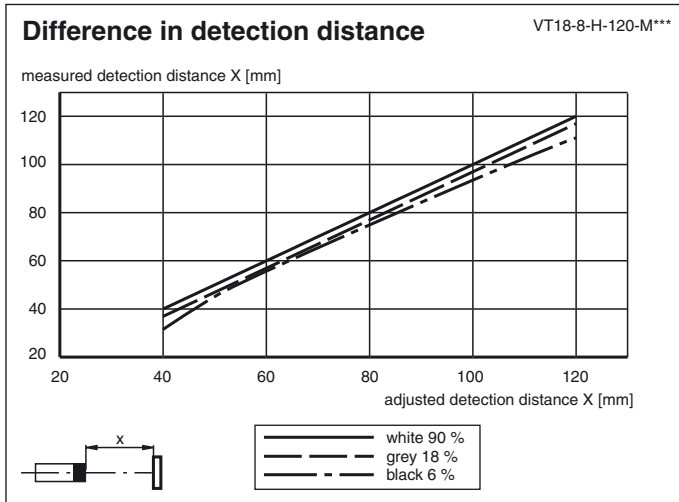
Degree of protection	IP67
Connection	4-pin, M12 x 1 connector
Material	
Housing	brass, nickel-plated
Optical face	PMMA
Mass	60 g

### Approvals and certificates

CE conformity	yes
UL approval	cULus Listed, Type 1 enclosure
CCC approval	CCC approval / marking not required for products rated ≤36 V

## Curves/Diagrams





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