



LINHA **PE**

PE SERIES/ LÍNEA PE

SENSOR FOTOELÉTRICO MINIATURA QUADRADO

MINIATURE SQUARE PHOTOELECTRIC SENSOR/ SENSOR FOTOELÉTRICO
MINIATURA CUADRADO

ESPECIFICAÇÕES TÉCNICAS

TECHNICAL SPECIFICATIONS/ ESPECIFICACIONES TÉCNICAS

PT

EN

ES



PRINCIPAIS CARACTERÍSTICAS

- Formato universal, ideal para substituição de uma ampla gama de sensores;
- Grau de proteção IP67, adequado para ambientes agressivos;
- Ajuste rápido e estável;
- NA ou NF selecionável por botão;
- Distância sensora ajustável;



CÓDIGO DE COMPRA

PE D - BK 25DN-K8

Tipo	
D	Difuso
R	Retroreflectivo
B	Barreira

Luz	
Em branco	LED
BK	Led com supressão de fundo
L	Laser (Classe I)

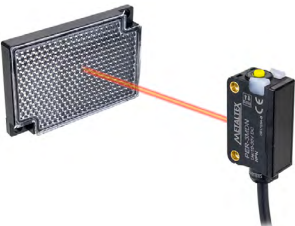
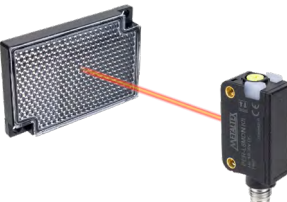
Distância sensora	
25	25 cm
30	30 cm
1M	1 metro
3M	3 metros
8M	8 metros
20M	20 metros

Conexão	
Em branco	Saída cabo 2 m
K8	Conector M8 4 pinos
Tipo de saída	
N	NPN
P	PNP

MODELOS

PT

Difuso				
Conexão	Fonte de luz	Lógica de Saída	Sinal de Saída	Código
Cabo 2 m 	LED Vermelho 640 nm	NA ou NF configuração via botão	NPN	PED-30DN
			PNP	PED-30DP
Conector M8 4 pinos 	LED Infravermelho 860 nm	NA ou NF configuração via botão	NPN	PED-1MDN-K8
			PNP	PED-1MDP-K8
	LED Vermelho 630 nm	NA ou NF por fio	NPN	PED-BK25DN-K8
			PNP	PED-BK25DP-K8

Retroreflectivo Polarizado				
Conexão	Fonte de luz	Lógica de Saída	Sinal de Saída	Código
Cabo 2 m 	LED Vermelho 640 nm	NA ou NF configuração via botão	NPN	PER-3MDN
			PNP	PER-3MDP
Conector M8 4 pinos 	Laser Vermelho 650 nm Classe I 	NA e NF	NPN	PER-L8MDN-K8
			PNP	PER-L8MDP-K8

Barreira				
Conexão	Fonte de luz	Lógica de Saída	Sinal de Saída	Código
Cabo 2 m 	LED Infravermelho 850 nm	NA ou NF configuração via botão	NPN	PEB-20MDN
			PNP	PEB-20MDP
Conector M8 4 pinos 			NPN	PEB-20MDN-K8
			PNP	PEB-20MDP-K8

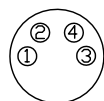
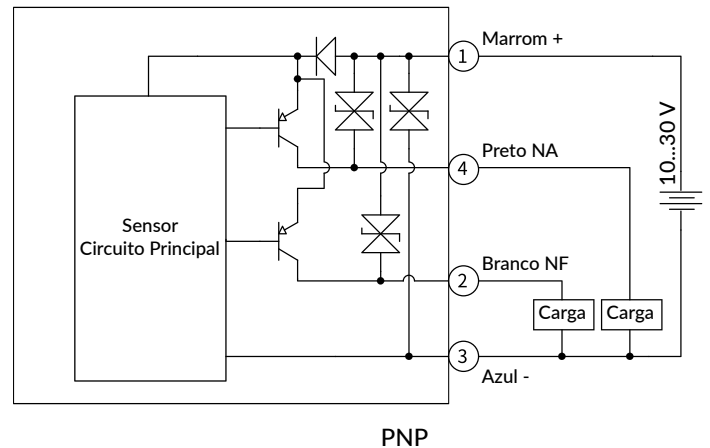
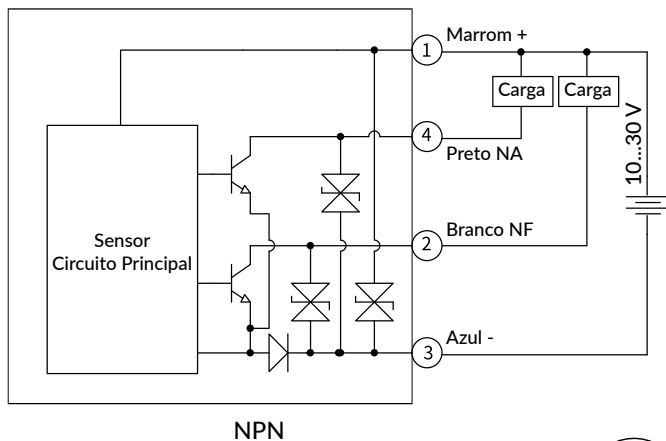
ESPECIFICAÇÕES GERAIS

PT

Modelo	Difuso com supressão de fundo	Difuso		Retroreflectivo Polarizado		Barreira
Distância sensora	0,2 a 25 cm	30 cm	1 m	3 m	8 m	20 m
Alvo padrão	Spot Φ11 mm @ 25 cm	Spot Φ8 mm @ 30 cm	-	-	Spot Φ10 mm @ 5 m	Objeto opaco ≥Φ10 mm (dentro da faixa de Sn)
Alimentação	10...30 VCC ±10%					
Fonte de luz	LED vermelho 630 nm	LED vermelho 640 nm	LED Infravermelho 860 nm	LED vermelho 640 nm	Laser vermelho (650 nm) Classe I	LED Infravermelho 850 nm
Ajuste de distância	Potenciômetro de 5 voltas	Pressione o botão de 2 a 5s, até as luzes amarela e verde piscarem a 4 Hz, solte-o para finalizar			Potenciômetro de 5 voltas	Pressione o botão de 2 a 5 s, até as luzes amarela e verde piscarem a 4 Hz, solte-o para finalizar
Tempo de resposta	3,5 ms	0,5 ms	1 ms	1 ms	0,5 ms	<1 ms
Indicação	LEDs indicadores de alimentação e operação					
Corrente de carga	100 mA	200 mA	200 mA	200 mA	100 mA	200 mA
Corrente de consumo	≤20 mA	≤25 mA	≤25 mA	≤25 mA	≤20 mA	Emissor: ≤20 mA, Receptor: ≤20 mA
Circuito de proteção	Proteção contra curto-circuito, sobrecarga, sobretensão e inversão de polaridade					
Proteção luz ambiente	Interferência da luz solar ≤ 10.000 lux e Interferência da luz incandescente ≤ 3.000 lux					
Temperatura ambiente	-25 ~ 55 °C				-10 ~ 50 °C	-25 ~ 55 °C
Material de construção	Corpo: PC/ABS					
Acessórios inclusos	Suporte metálico e parafusos			Espelho prismático, suporte metálico e parafusos		Suporte metálico e parafusos
Grau de proteção	IP67					

ESQUEMA DE LIGAÇÃO

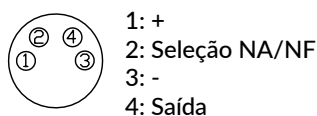
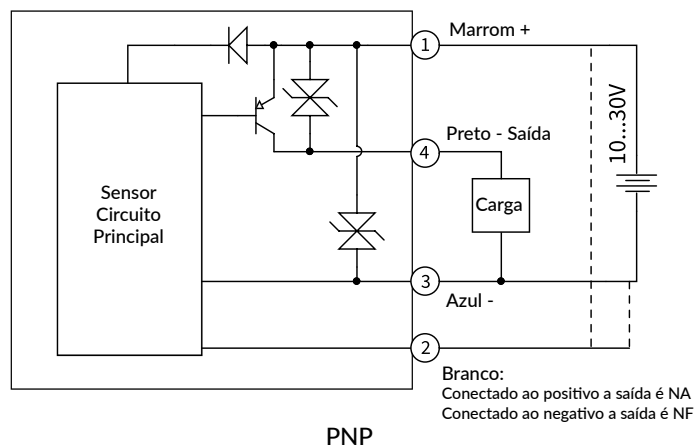
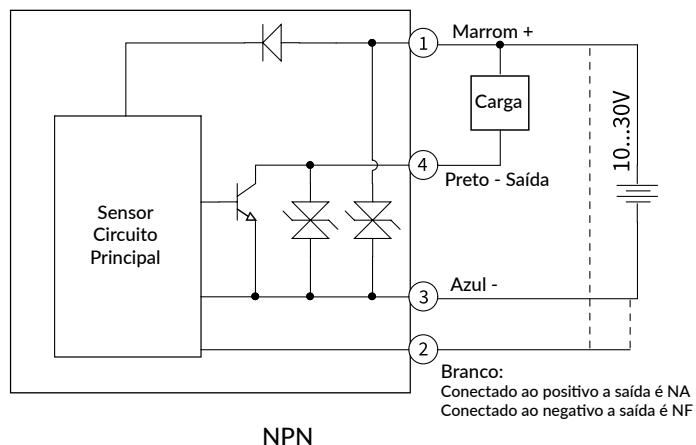
PER-L8MDx-K8



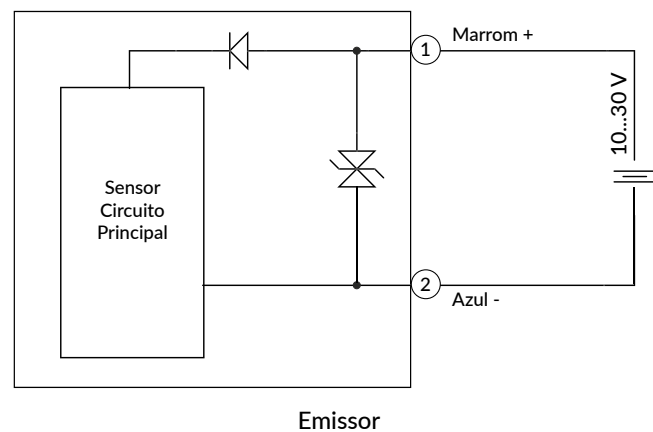
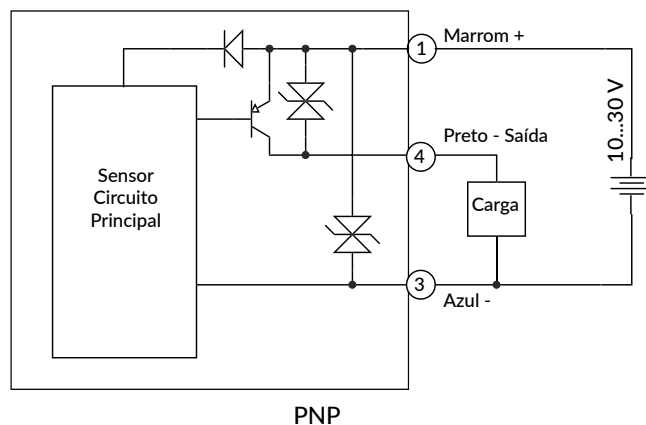
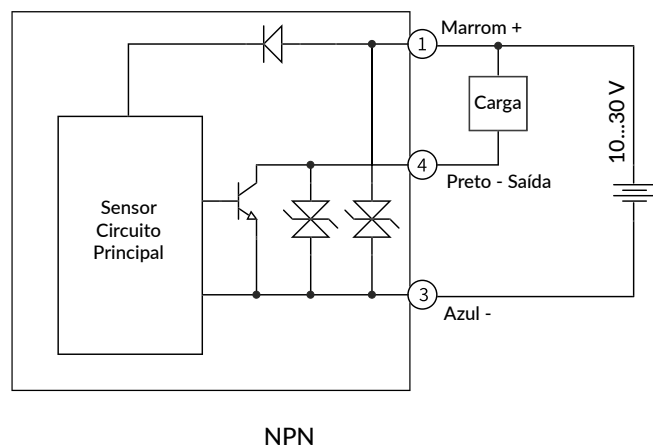
1: +
2: Saída
3: -
4: Saída

PED-BK25Dx-K8

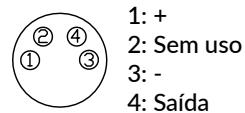
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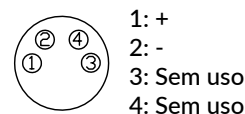
PED-30Dx, PED-1MDx-K8, PER-3MDx, PEB-20Mx e PEB-20MDx-K8



Receptor NPN/PNP

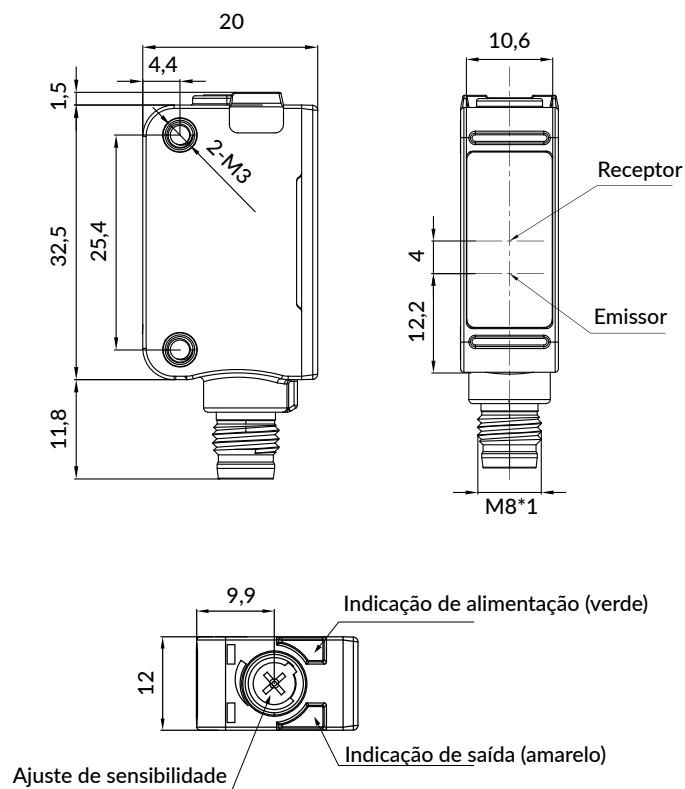


Emissor

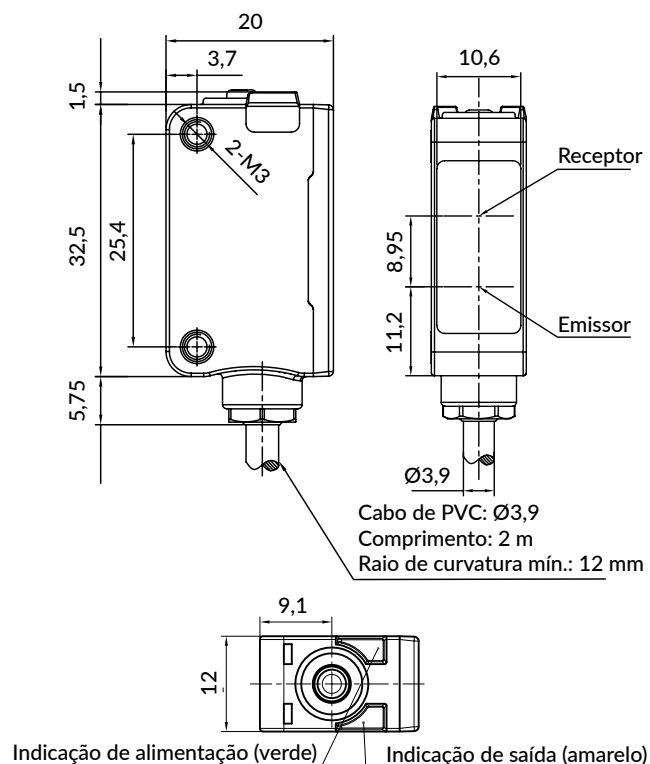


DIMENSÕES (mm)

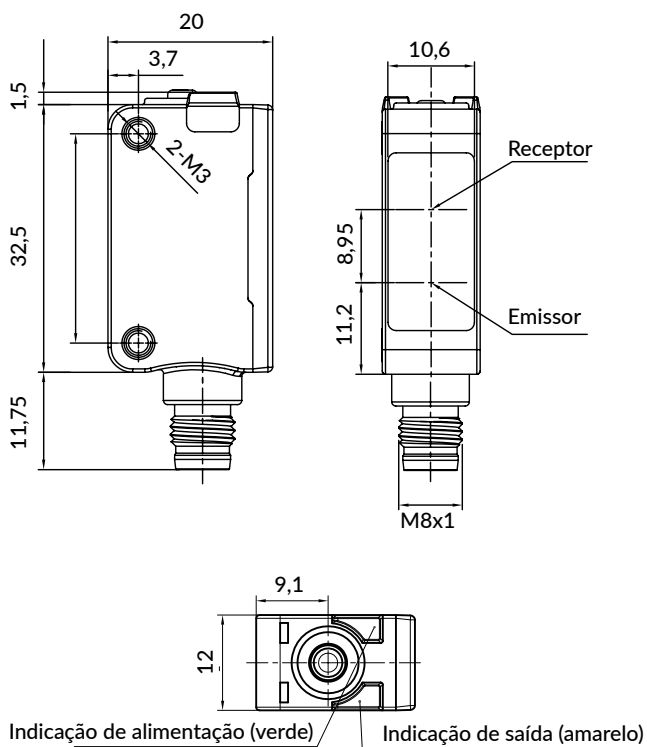
PED-30Dx / PER-3MDx / PEB-20Mx



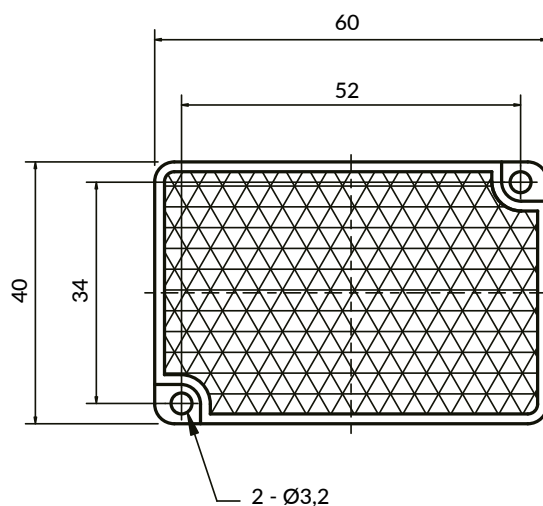
PED-30Dx / PER-3MDx / PEB-20Mx



PED-1MDx-K8 e PEB-20MDx-K8



Espelho prismático



FEATURES

- Universal design, suitable for replacing a wide range of sensors;
- IP67 protection grade, suitable for harsh environments;
- Fast and stable setting;
- NO or NC selectable by button;
- Adjustable distance sensor.



HOW TO ORDER

PE D - BK 25DN-K8

Type	
D	Diffuse
R	Retroreflective
B	Through

Light	
Nil	LED
BK	Led with background suppression
L	Laser (Class I)

Sensing distance	
25	25 cm
30	30 cm
1M	1 meter
3M	3 meters
8M	8 meters
20M	20 meters

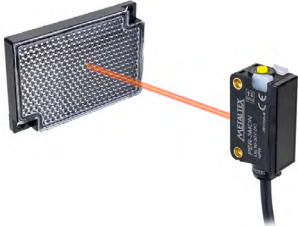
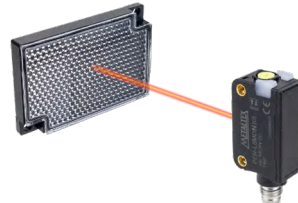
Connection	
Nil	2 m cable
K8	M8 - 4 pin connector

Output type	
N	NPN
P	PNP

MODELS

EN

Difuse				
Connection	Light source	Output logic	Output signal	Part Number
2 m cable 	Red LED 640 nm	NO or NC button configuration	NPN	PED-30DN
			PNP	PED-30DP
M8 4-pin connector 	Infrared LED 860 nm	NO or NF button configuration	NPN	PED-1MDN-K8
			PNP	PED-1MDP-K8
	Red LED 630 nm	NO or NC by wire	NPN	PED-BK25DN-K8
			PNP	PED-BK25DP-K8

Polarized Retroreflective				
Connection	Light source	Output logic	Output signal	Part Number
2 m cable 	Red LED 640 nm	NO or NC button configuration	NPN	PER-3MDN
			PNP	PER-3MDP
M8 - 4-pin connector 	Red Laser 650 nm Class I 	NO and NC	NPN	PER-L8MDN-K8
			PNP	PER-L8MDP-K8

Through-beam				
Connection	Light source	Output logic	Output signal	Part Number
2 m cable 	Infrared LED 850 nm	NO or NC button configuration	NPN	PEB-20MDN
			PNP	PEB-20MDP
M8-4-pin connector 			NPN	PEB-20MDN-K8
			PNP	PEB-20MDP-K8

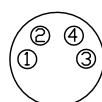
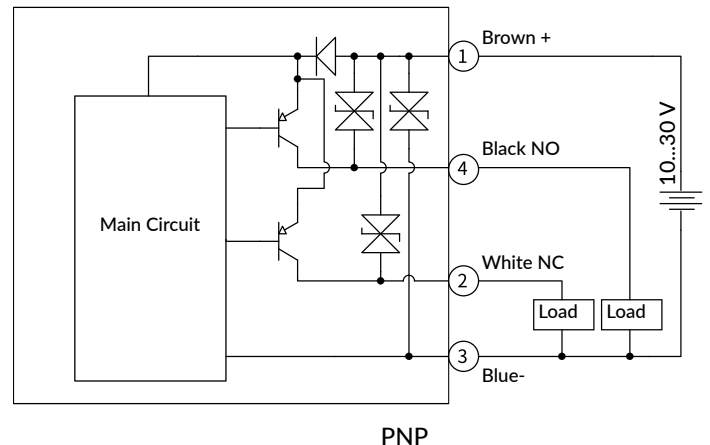
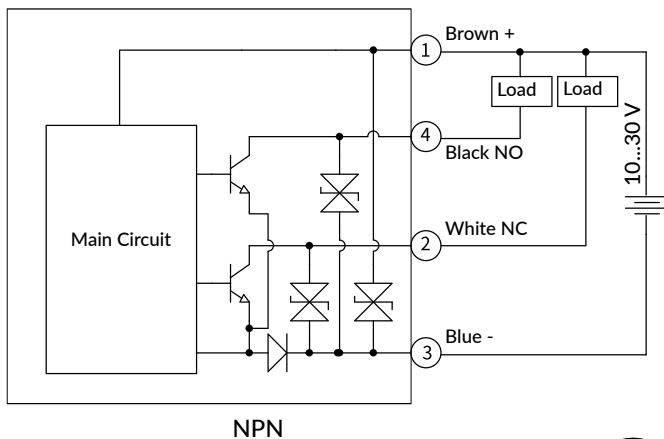
GENERAL SPECIFICATIONS

EN

Type	Diffuse with background suppression	Diffuse		Polarized Retroreflective		Through-beam
Sensing distance	0,2 to 25 cm	30 cm	1 m	3 m	8 m	20 m
Standard target	Spot Φ11 mm @ 25 cm	Spot Φ8 mm @ 30 cm	-	-	Spot Φ10 mm @ 5 m	≥Φ10 mm opaque object (within Sn range)
Power supply	10...30 VCC ±10%					
Light source	Red LED 630 nm	Red LED 640 nm	Infrared LED 860 nm	Red LED 640 nm	Red Laser (650 nm) Class I	Infrared LED 850 nm
Distance adjustment	5-turn potentiometer	Press the button for 2 to 5 seconds, until the yellow and green lights flash at 4 Hz, then release it to finish.			5-turn potentiometer	Press the button for 2 to 5 seconds, until the yellow and green lights flash at 4 Hz, then release it to finish.
Response time	3,5 ms	0,5 ms	1 ms	1 ms	0,5 ms	<1 ms
Indication	Indicator LEDs for operation and power					
Load current	100 mA	200 mA	200 mA	200 mA	100 mA	200 mA
Consumption current	≤20 mA	≤25 mA	≤25 mA	≤25 mA	≤20 mA	Emitter: ≤20 mA, Receiver: ≤20 mA
Circuit protection	Protection against short circuit, overload, overvoltage, and reverse polarity.					
Ambient light protection	Anti-sunlight interference ≤ 10,000 lux e Incandescent light interference ≤ 3,000 lux					
Ambient temperature	-25 ~ 55 °C				-10 ~ 50 °C	-25 ~ 55 °C
Housing material	Housing : PC/ABS					
Included accessories	Metal bracket and screws			Prismatic mirror, metal bracket and screws		Metal bracket and screws
Protection grade	IP67					

WIRING

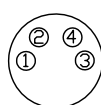
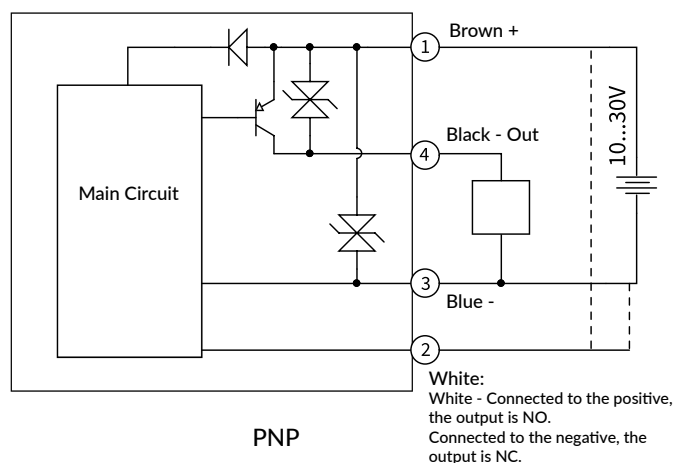
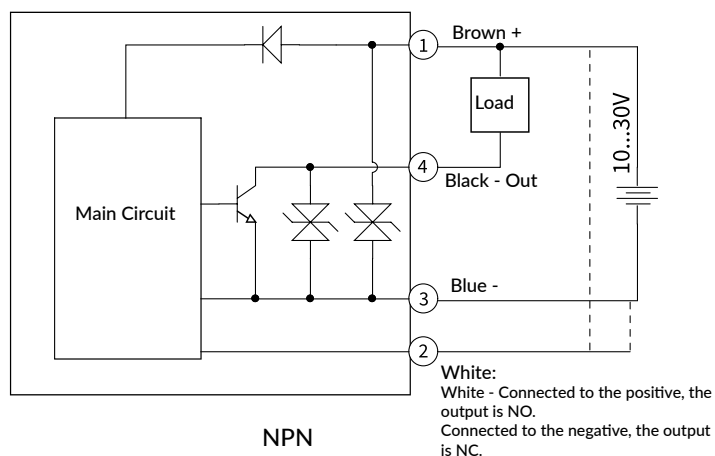
PER-L8MDx-K8



- 1: +
- 2: Output
- 3: -
- 4: Output

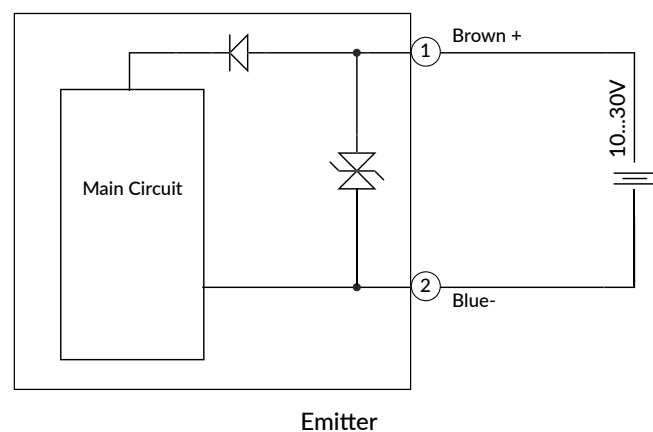
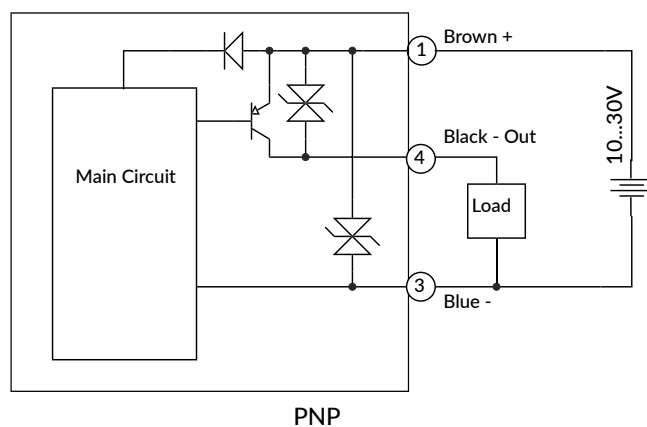
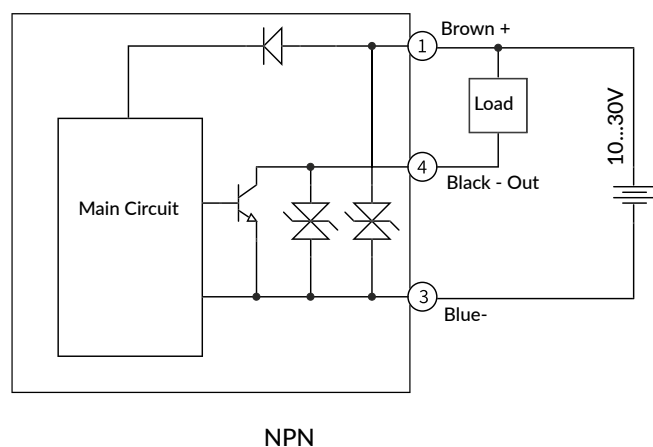
PED-BK25Dx-K8

EN

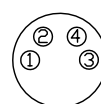


- 1: +
- 2: Selection NO/NC
- 3: -
- 4: Output

PED-30Dx, PED-1MDx-K8, PER-3MDx, PEB-20Mx e PEB-20MDx-K8

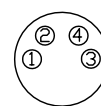


Receiver NPN/PNP



- 1: +
- 2: Unused
- 3: -
- 4: Output

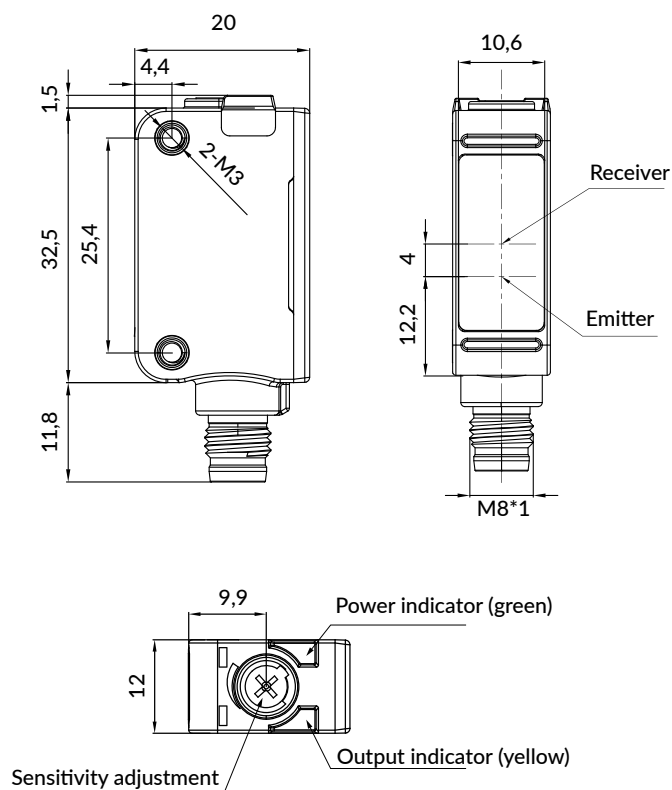
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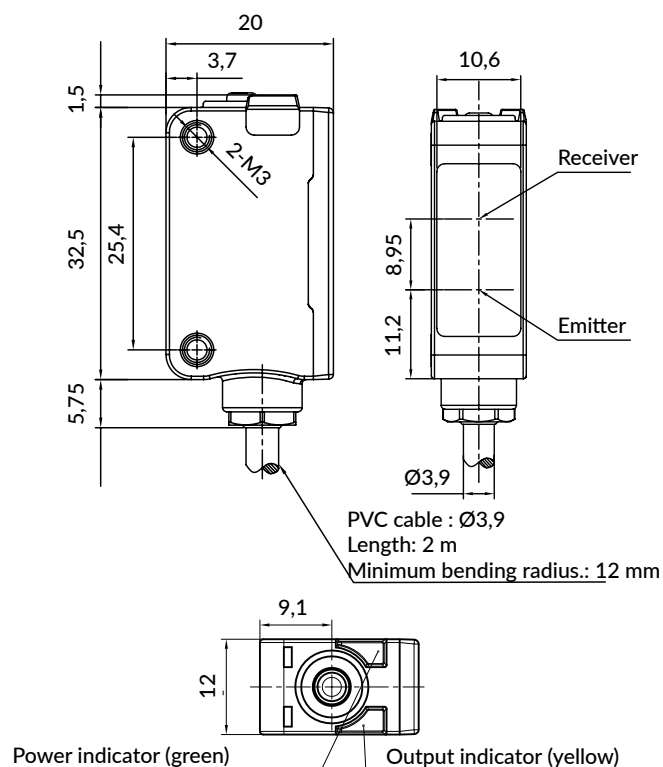
- 1: +
- 2: -
- 3: Unused
- 4: Unused

DIMENSIONS (mm)

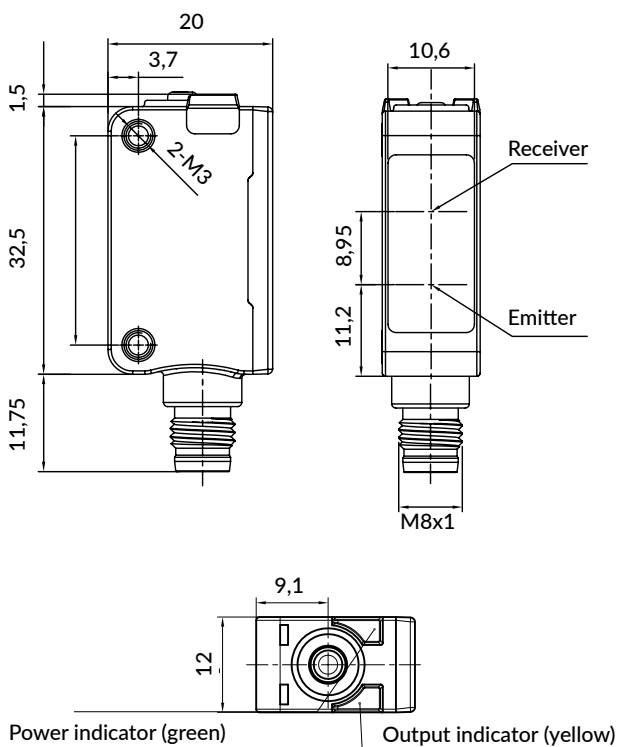
PED-30Dx / PER-3MDx / PEB-20Mx



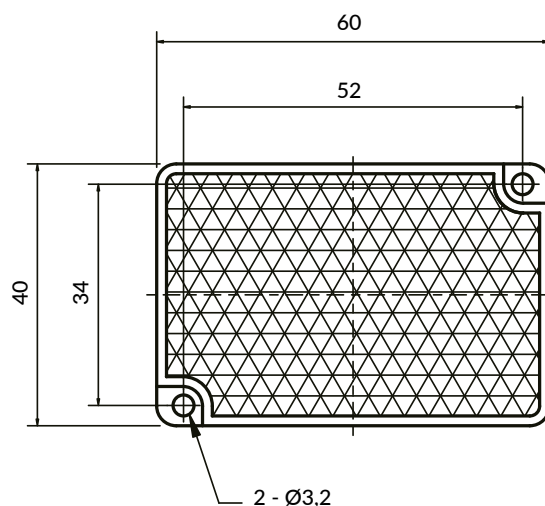
PED-30Dx / PER-3MDx / PEB-20Mx



PED-1MDx-K8 e PEB-20MDx-K8

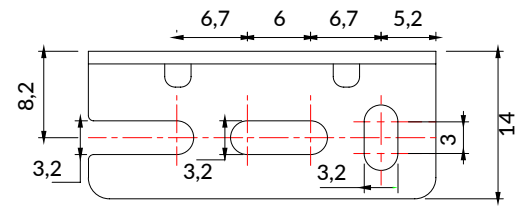
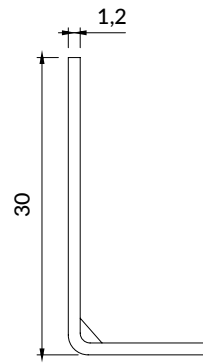
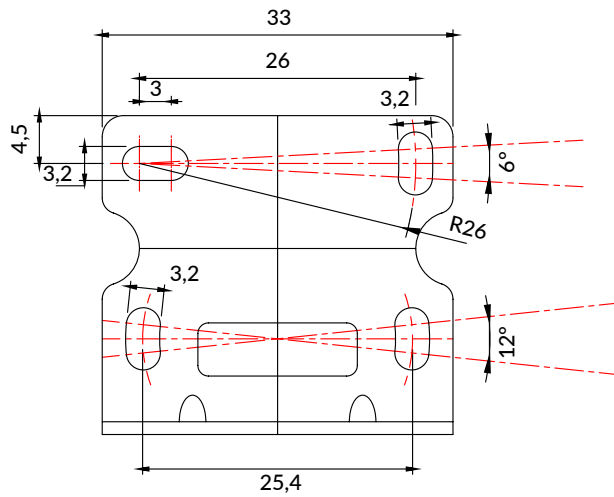


Prismatic mirror



Support

EN



PRINCIPALES CARACTERÍSTICAS

- Formato universal, ideal para la sustitución de una amplia gama de sensores;
- Grado de protección IP67, adecuado para ambientes agresivos;
- Ajuste rápido y estable;
- NA o NC seleccionable por botón;
- Distancia sensora ajustable;



ES



CÓDIGO DE COMPRA

PE D - BK 25DN-K8

Tipo	
D	Difuso
R	Retroreflectivo
B	Barrera

Luz	
En blanco	LED
BK	Led con supresión de fondo
L	Laser (Clase I)

Distancia sensora	
25	25 cm
30	30 cm
1M	1 metro
3M	3 metros
8M	8 metros
20M	20 metros

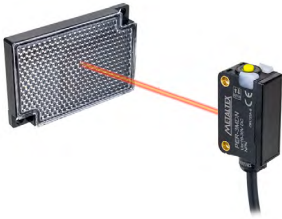
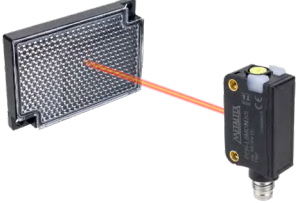
Conexión	
En blanco	Salida a cable de 2 m
K8	Conector M8 con 4 pines

Tipo de salida	
N	NPN
P	PNP

MODELOS

ES

Difuso				
Conexión	Fuente de luz	Lógica de Salida	Señal de Salida	Código
Cable de 2 m 	LED Rojo 640 nm	NA o NC configuración por botón	NPN	PED-30DN
			PNP	PED-30DP
Conector M8 4 pines 	LED Infrarrojo 860 nm	NA o NC configuración por botón	NPN	PED-1MDN-K8
			PNP	PED-1MDP-K8
	LED Rojo 630 nm	NA o NC Seleccionable por conexión	NPN	PED-BK25DN-K8
			PNP	PED-BK25DP-K8

Retroreflectivo Polarizado				
Conexión	Fuente de luz	Lógica de Salida	Señal de Salida	Código
Cable de 2 m 	LED Rojo 640 nm	NA o NC configuración por botón	NPN	PER-3MDN
			PNP	PER-3MDP
Conector M8 4 pines 	Laser Rojo 650 nm Clase I 	NA y NC	NPN	PER-L8MDN-K8
			PNP	PER-L8MDP-K8

Barrera				
Conexión	Fuente de luz	Lógica de Salida	Señal de Salida	Código
Cable de 2 m 	LED Infrarrojo 850 nm	NA o NC configuración por botón	NPN	PEB-20MDN
			PNP	PEB-20MDP
Conector M8 4 pines 			NPN	PEB-20MDN-K8
			PNP	PEB-20MDP-K8

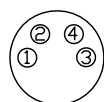
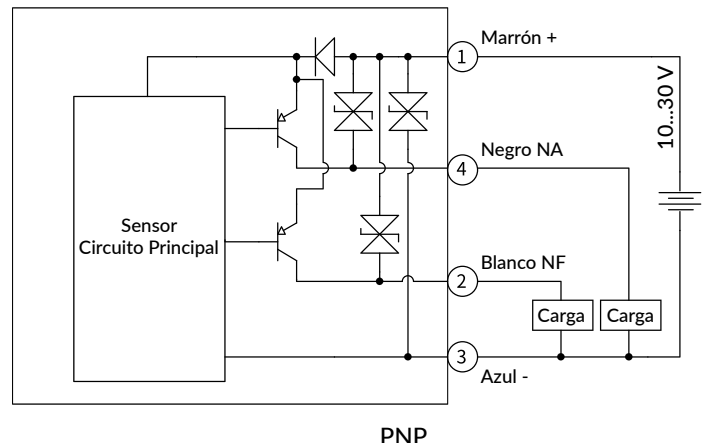
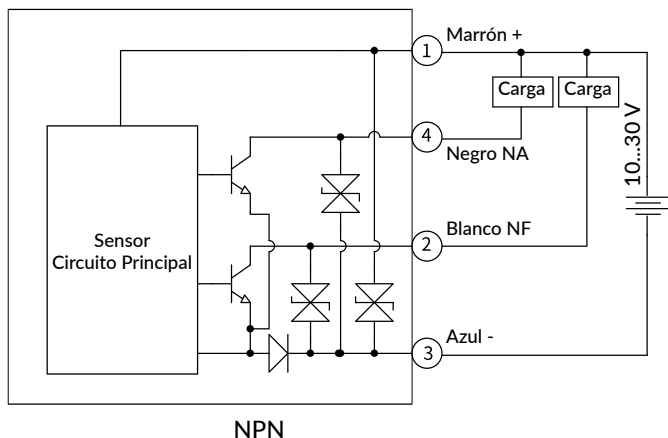
ESPECIFICACIONES GENERALES

ES

Modelo	Difuso con supresión de fondo	Difuso		Retroreflectivo Polarizado		Barrera
Distancia sensora	0,2 a 25 cm	30 cm	1 m	3 m	8 m	20 m
Objeto estándar	Spot Ø11 mm @ 25 cm	Spot Ø8 mm @ 30 cm	-	-	Spot Ø10 mm @ 5 m	Objeto opaco ≥Ø10 mm (dentro del rango de Sn)
Alimentación	10...30 VCC ±10%					
Fuente de luz	LED rojo 630 nm	LED rojo 640 nm	LED Infrarrojo 860 nm	LED rojo 640 nm	Laser rojo (650 nm) Clase I	LED Infrarrojo 850 nm
Ajuste de distancia	Potenciómetro de 5 vueltas	Presionar el botón de 2 a 5s, hasta que las luces amarilla y verde parpadeen a 4 Hz. Suelte para finalizar			Potenciómetro de 5 vueltas	Presionar el botón de 2 a 5s, hasta que las luces amarilla y verde parpadeen a 4Hz. Suelte para finalizar
Tiempo de respuesta	3,5 ms	0,5 ms	1 ms	1 ms	0,5 ms	<1 ms
Indicación	LEDs indicadores de alimentación y operación					
Corriente de carga	100 mA	200 mA	200 mA	200 mA	100 mA	200 mA
Corriente de consumo	≤20 mA	≤25 mA	≤25 mA	≤25 mA	≤20 mA	Emisor: ≤20 mA, Receptor: ≤20 mA
Circuito de protección	Protección contra cortocircuito, sobrecarga, sobretensión e inversión de polaridad					
Protección luz ambiente	Interferencia de luz solar ≤ 10.000 lux, e, Interferencia de luz incandescente ≤ 3.000 lux					
Temperatura ambiente	-25 ~ 55 °C				-10 ~ 50 °C	-25 ~ 55 °C
Material de construcción	Cuerpo: PC/ABS					
Accesorios incluidos	Soporte metálico y tornillos			Espejo prismático, soporte metálico y tornillos		Soporte metálico y tornillos
Grado de protección	IP67					

ESQUEMA DE CONEXIÓN

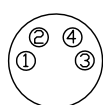
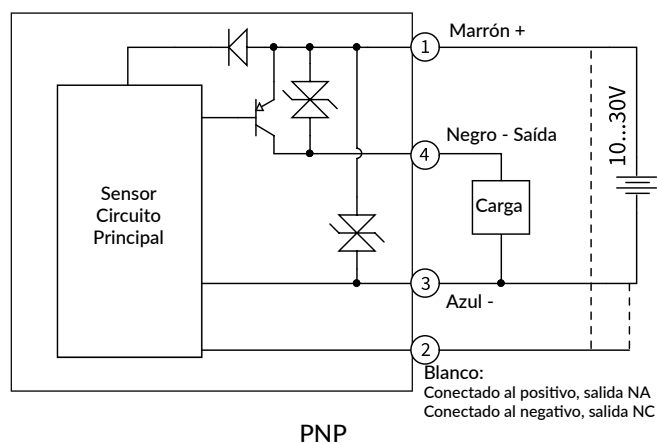
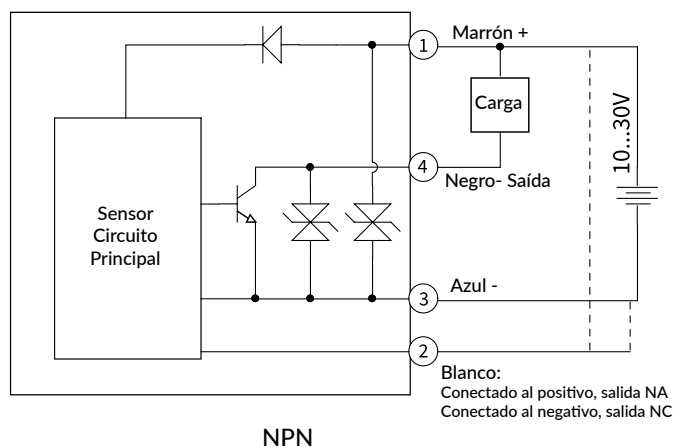
PER-L8MDx-K8



- 1: +
- 2: Salida
- 3: -
- 4: Salida

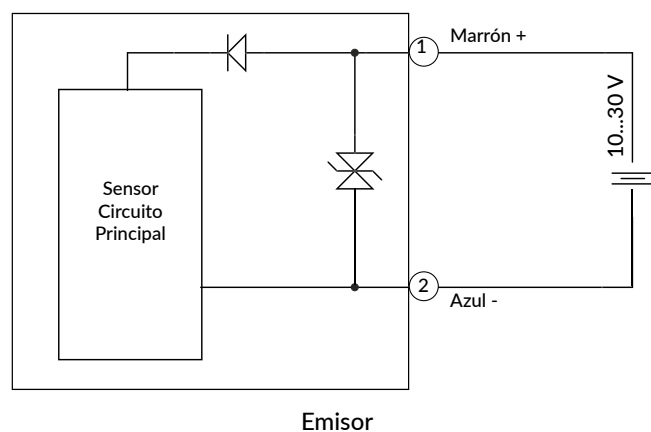
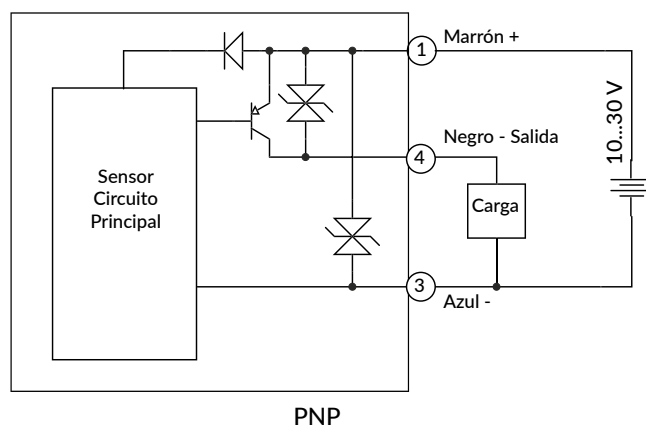
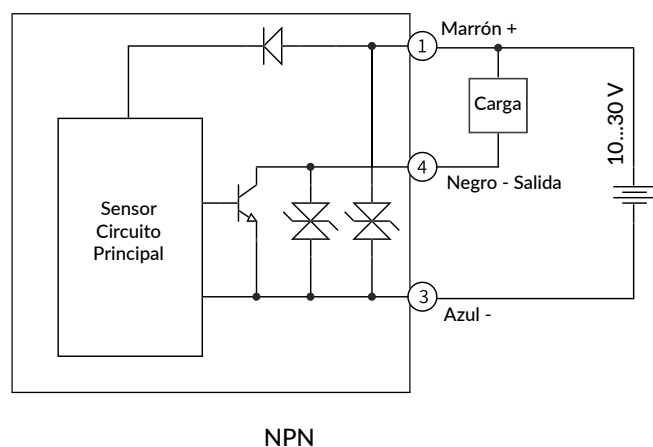
PED-BK25Dx-K8

ES

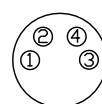


- 1: +
- 2: Selección NA/NC
- 3: -
- 4: Salida

PED-30Dx, PED-1MDx-K8, PER-3MDx, PEB-20Mx y PEB-20MDx-K8

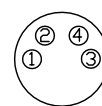


Receptor NPN/PNP



- 1: +
- 2: Sin uso
- 3: -
- 4: Salida

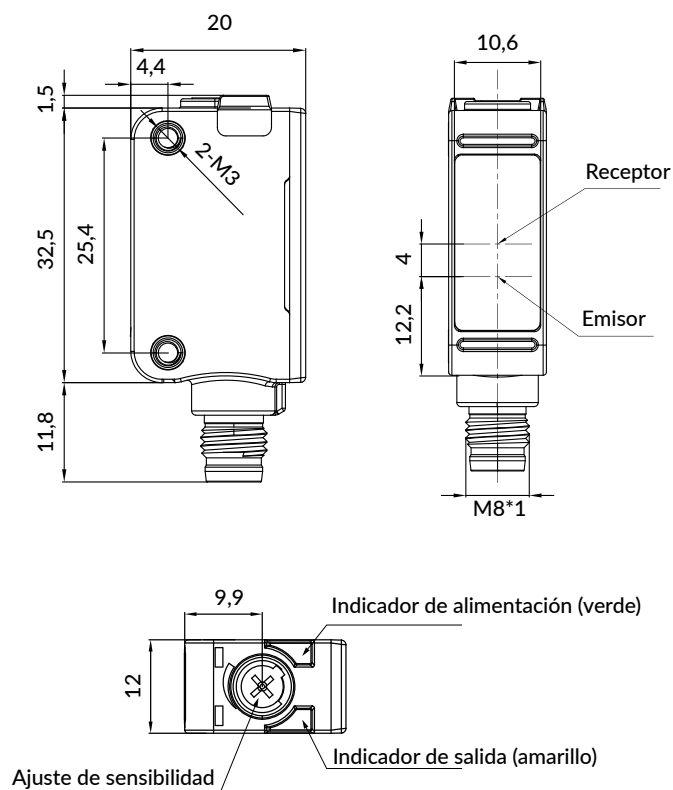
Emisor



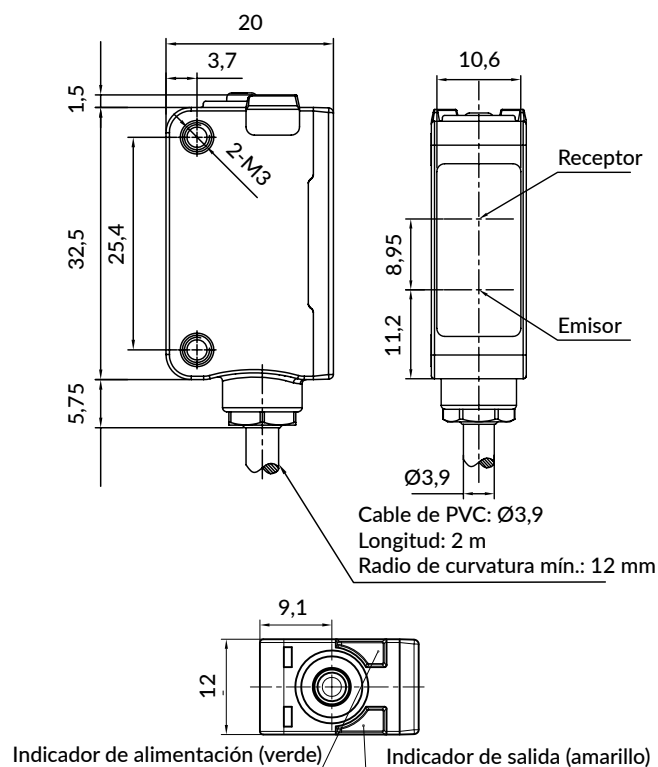
- 1: +
- 2: -
- 3: Sin uso
- 4: Sin uso

DIMENSIONES (mm)

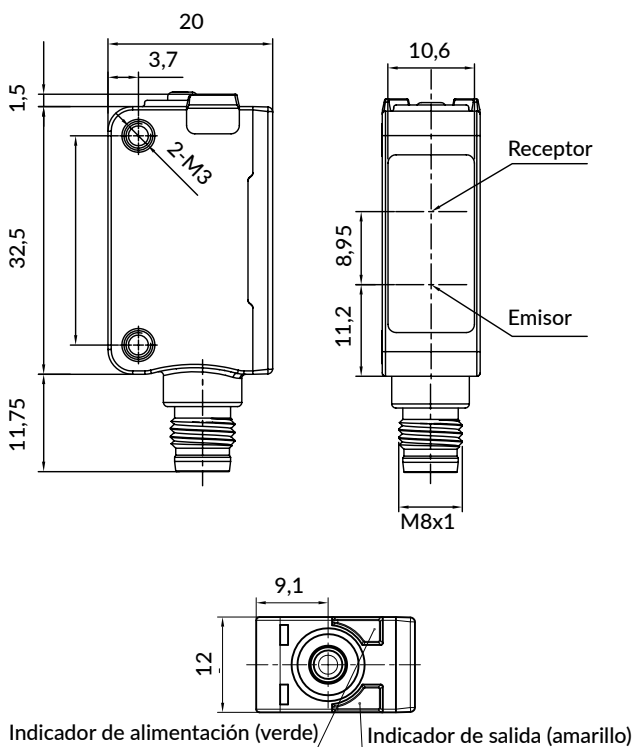
PED-30Dx / PER-3MDx / PEB-20Mx



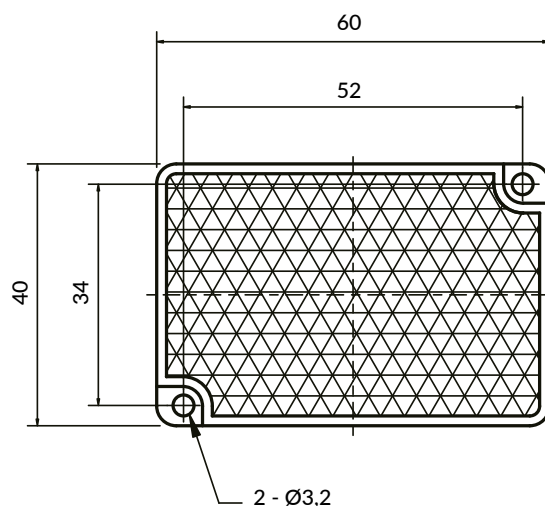
PED-30Dx / PER-3MDx / PEB-20Mx



PED-1MDx-K8 y PEB-20MDx-K8



Espejo prismático



Soporte

ES

