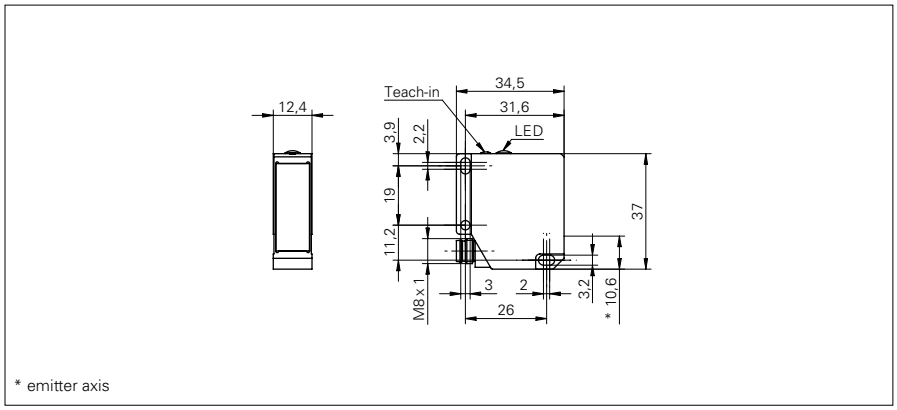
Difference sensors

OBDM 12N6910/S35A

dimension drawing



* emitter axis

general data

type	step analysis
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,2 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 5 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	NPN
output current	< 100 mA
output pulse length	10 ms
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

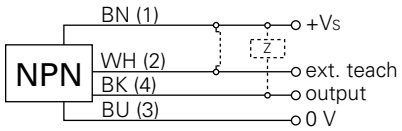
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

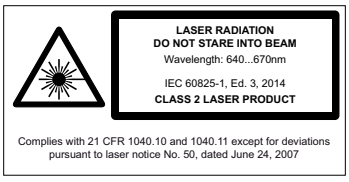
operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



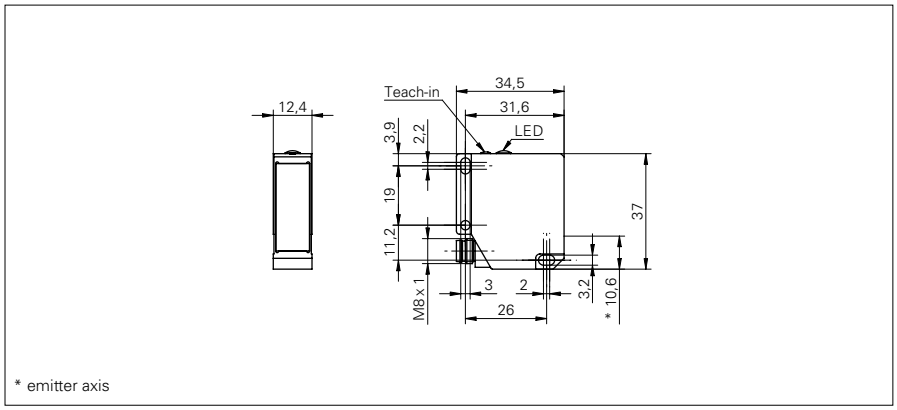
laser warning



Difference sensors

OBDM 12N6920/S35A

dimension drawing



* emitter axis

general data

type	min./max. analysis
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,3 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 1 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	NPN
output current	< 100 mA
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

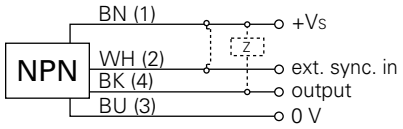
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

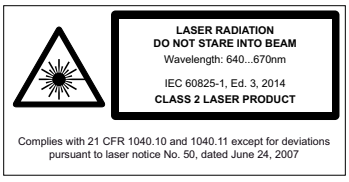
operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



laser warning



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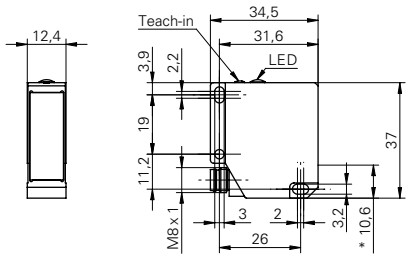
Difference sensors

OBDM 12N6930/S35A

dimension drawing



* emitter axis

general data

type	tolerance analysis
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,4 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 1 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	NPN
output current	< 100 mA
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

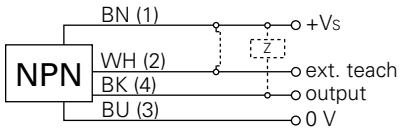
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

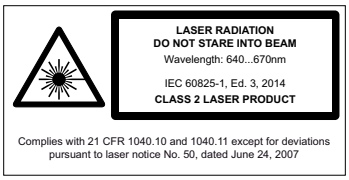
operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



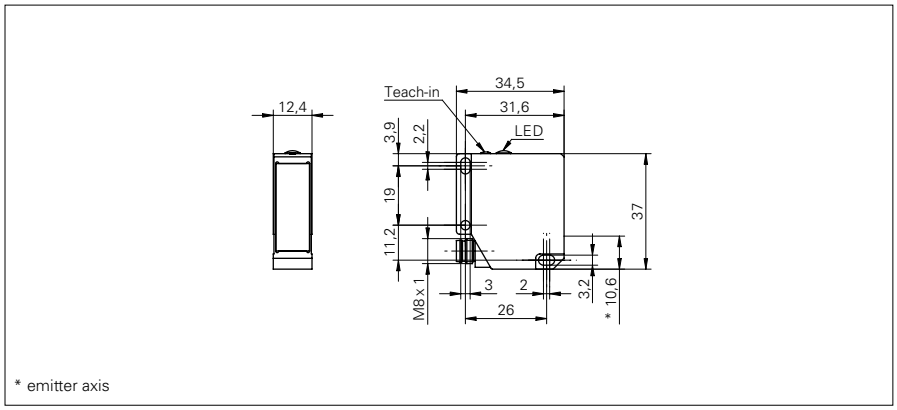
laser warning



Difference sensors

OBDM 12N6940/S35A

dimension drawing



* emitter axis

general data

type	window analysis
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,4 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 1 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	NPN
output current	< 100 mA
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

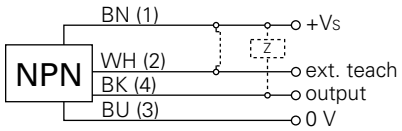
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

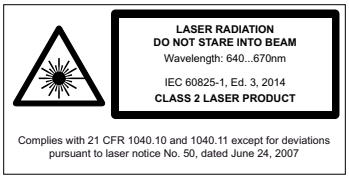
operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



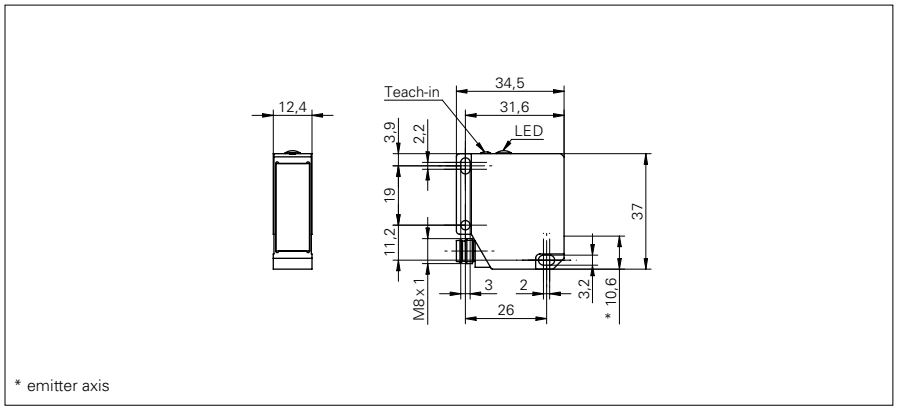
laser warning



Difference sensors

OBDM 12N6950/S35A

dimension drawing



general data

type	2-point comparison
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,3 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 1 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	NPN
output current	< 100 mA
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

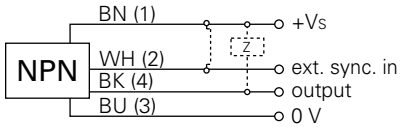
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

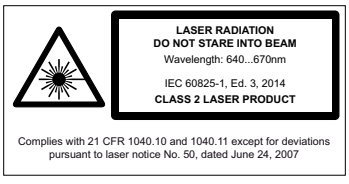
operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



laser warning



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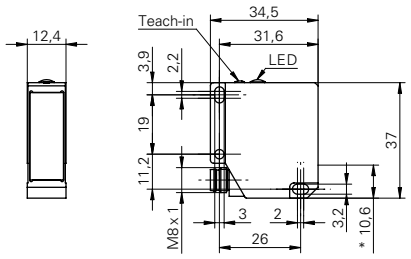
Difference sensors

OBDM 12P6910/S35A

dimension drawing



* emitter axis

general data

type	step analysis
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,2 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 5 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	PNP
output current	< 100 mA
output pulse length	10 ms
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

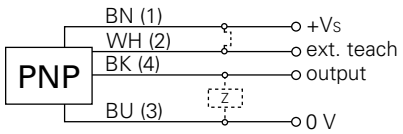
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

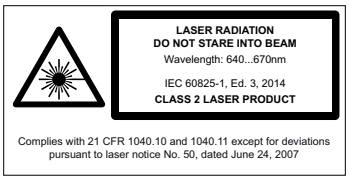
operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



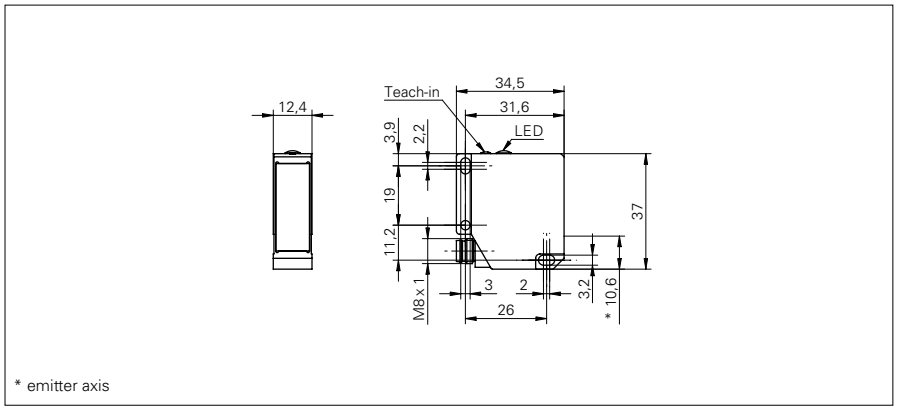
laser warning



Difference sensors

OBDM 12P6920/S35A

dimension drawing



* emitter axis

general data

type	min./max. analysis
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,3 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 1 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	PNP
output current	< 100 mA
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

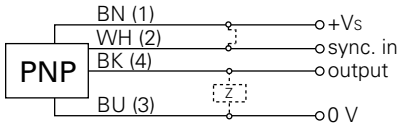
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

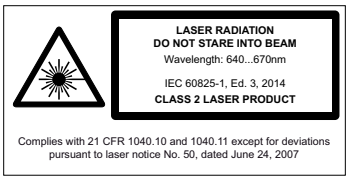
operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



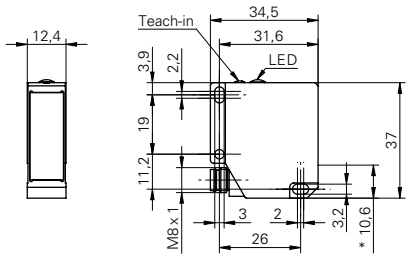
laser warning



Difference sensors

OBDM 12P6930/S35A

dimension drawing



* emitter axis

general data

type	tolerance analysis
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,4 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 1 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	PNP
output current	< 100 mA
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

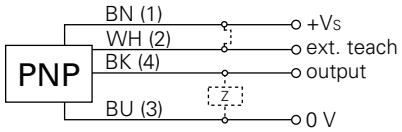
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

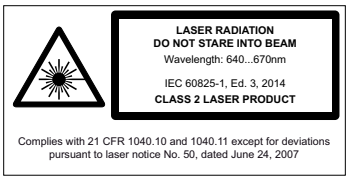
operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



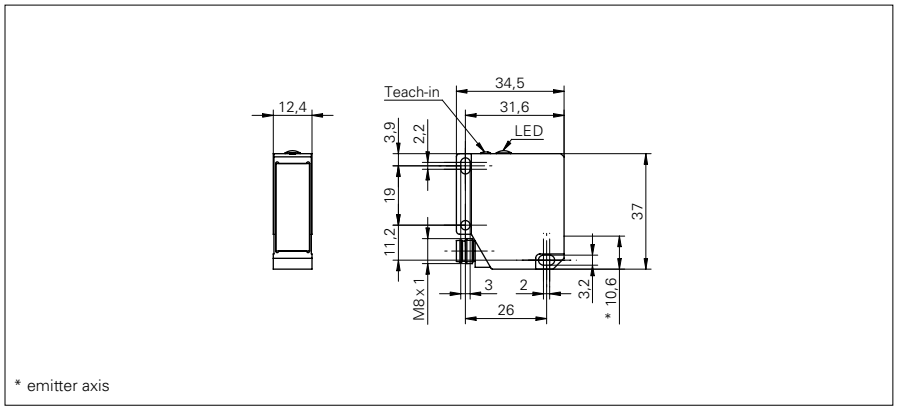
laser warning



Difference sensors

OBDM 12P6940/S35A

dimension drawing



* emitter axis

general data

type	window analysis
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,4 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 1 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	PNP
output current	< 100 mA
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

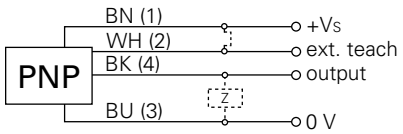
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

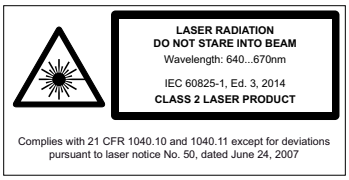
operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



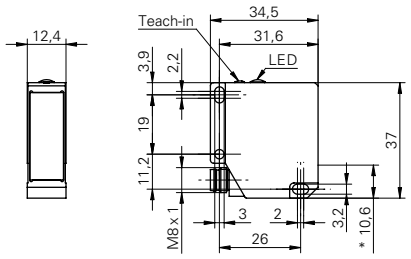
laser warning



Difference sensors

OBDM 12P6950/S35A

dimension drawing



* emitter axis

general data

type	2-point comparison
sensing distance Tw	16 ... 120 mm
Teach-in range min.	> 0,3 mm
adjustment	Teach-in
power on indication	LED green
output indicator	LED red
light source	pulsed red laser diode
laser class	2
wave length	650 nm
beam diameter	0,5 ... 0,2 mm

electrical data

response time	< 1 ms
voltage supply range +Vs	12 ... 28 VDC
current consumption max. (no load)	80 mA
current consumption typ.	40 mA
output circuit	PNP
output current	< 100 mA
voltage drop Vd	< 2,8 VDC
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

mechanical data

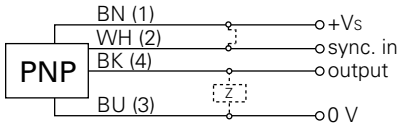
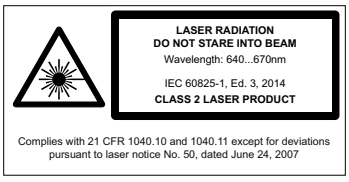
width / diameter	12,4 mm
height / length	37 mm
depth	34,5 mm
type	rectangular
front (optics)	glass
housing material	die-cast zinc
connection types	connector M8 4 pin

ambient conditions

operating temperature	0 ... +50 °C
protection class	IP 67

photo

connection diagram



laser warning