XECRO

www.xecro.com

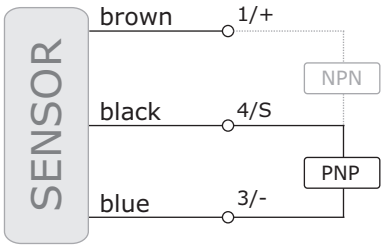
Most Reliable Sensor Technology

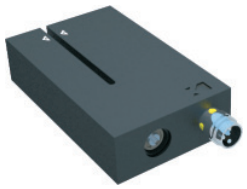
- *electric field*
- *inductive*
- *capacitive*
- *optical*

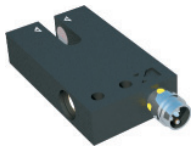
Fork-Light-Barriers

02 mm	05 mm

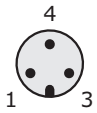
Output Schematics

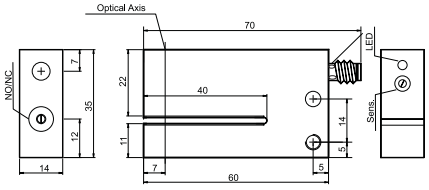


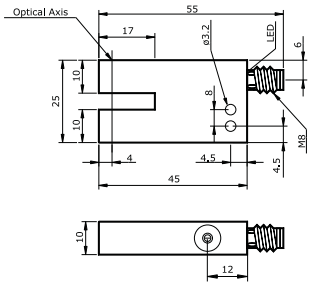




Connector M8



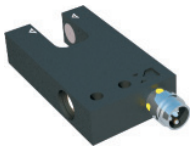


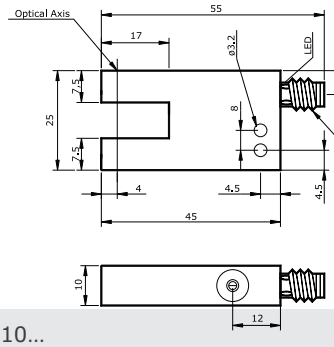


The use of this sensors is not permitted if the safety of people is relying upon it.

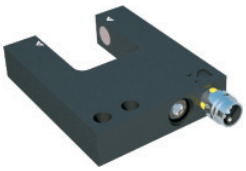
SPECIFICATIONS	FLE 02…	FLE 05…
Operating Voltage	10…35 VDC	10…35 VDC
Current Consumption	< 30 mA	< 30 mA
Output Current	200 mA, short-circuit-proof	200 mA, short-circuit-proof
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	2.5 Khz	2.5 KHz
Resolution	Ø 0.5 mm	Ø 0.5 mm
Adjustment	270° Potentiometer	270° Potentiometer
Switching Hysteresis	< 0.2 mm	< 0.2 mm
Repeatability	0.01 mm	0.01 mm
Operating Temperature	-10…+60 °C	-10…+60 °C
Ambient Light Immunity	70.000 lux	70.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Infrared / Glass Window	Infrared / Glass Window
Article Code		
PNP, NO		FLI05 PO/M8
PNP, NC		FLI05 PC/M8
PNP, NO/NC	FLI02 PS/M8	
NPN, NO		FLI05 NO/M8
NPN, NC		FLI05 NC/M8
NPN, NO/NC	FLI02 NS/M8	
Recommended Connecting Cable	M8/3…	M8/3…

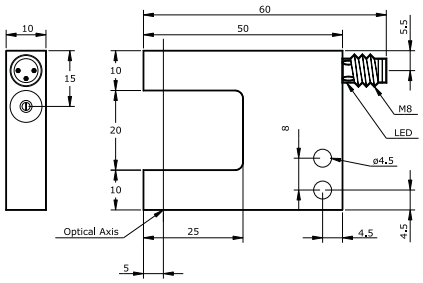
10 mm





20 mm

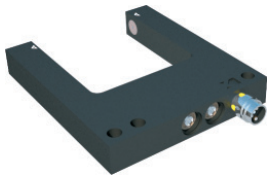




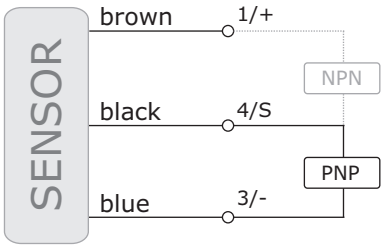
FLE 10…	FLE 20…
10…35 VDC	10…35 VDC
< 30 mA	< 30 mA
200 mA, short-circuit-proof	200 mA, short-circuit-proof
2.5 V @ 200 mA	2.5 V @ 200 mA
2.5 KHz	2.5 kHz
Ø 0.5 mm	Ø0.3mm
270° Potentiometer	270° Potentiometer
< 0.2 mm	< 0.2 mm
0.01 mm	0.01 mm
-10…+60 °C	-10…+60 °C
70.000 lux	70.000 lux
500 V	500 V
Aluminum	Aluminum
IP 67	IP 67
Infrared / Glass Window	Red-Light / Glass Window
FLI10 PO/M8	FLE20 PO/M8
FLI10 PC/M8	FLE20 PC/M8
FLI10 NO/M8	FLE20 NO/M8
FLI10 NC/M8	FLE20 NC/M8
M8/3…	M8/3…

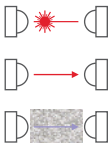
Fork-Light-Barriers

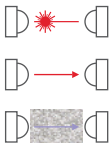
30 mm	40 mm



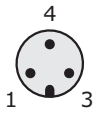
Output Schematics

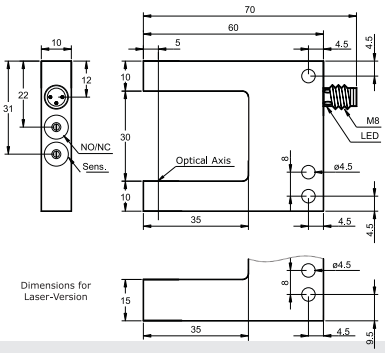


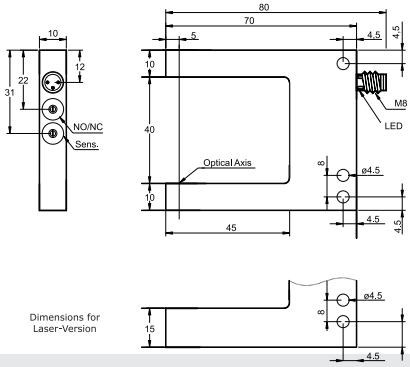




Connector M8





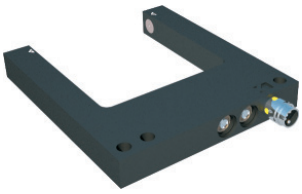


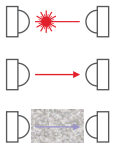
The use of this sensors is not permitted if the safety of people is relying upon it.

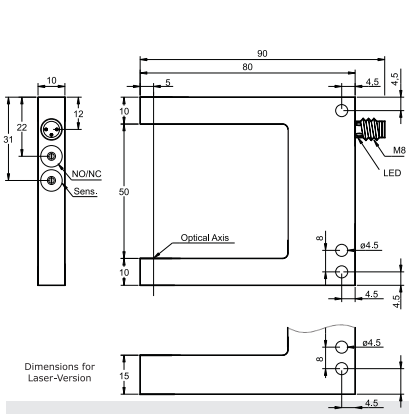
SPECIFICATIONS	FLx 30...	FLx 40...
Operating Voltage	10...35 VDC	10...35 VDC
Current Consumption	< 30 mA	< 30 mA
Output Current	200 mA, short-circuit-proof	200 mA, short-circuit-proof
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	red-light: 2.5 kHz | laser: 10 kHz	red-light: 2.5 kHz | laser: 10 kHz
Resolution	red-light: Ø0.3mm | laser: Ø0.03 mm	red-light: Ø0.3mm | laser: Ø0.03 mm
Adjustment	270° Potentiometer	270° Potentiometer
Switching Hysteresis	< 0.2 mm	< 0.2 mm
Repeatability	0.01 mm	0.01 mm
Operating Temperature	-10...+60 °C	-10...+60 °C
Ambient Light Immunity	50.000 lux	50.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Red-Light / Laser Glass Window	Red-Light / Laser Glass Window
Article Code		
PNP, NO / NC - Red-Light	FLE30 PS/M8	FLE40 PS/M8
NPN, NC / NC - Red-Light	FLE30 NS/M8	FLE40 NS/M8
PNP, NO / NC - Laser	FLA30 PS/M8	FLA40 PS/M8
NPN, NO / NC - Laser	FLA30 NS/M8	FLA40 NS/M8
PNP, NO / NC - Dirt Immune	FLD30 PS/M8	FLD40 PS/M8
NPN, NO / NC - Dirt Immune	FLD30 NS/M8	FLD40 NS/M8
Recommended Connecting Cable	M8/3...	M8/3...

Fork-Light-Barriers

50 mm

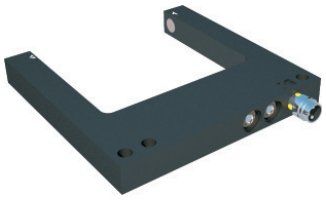


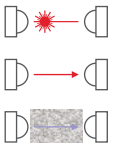


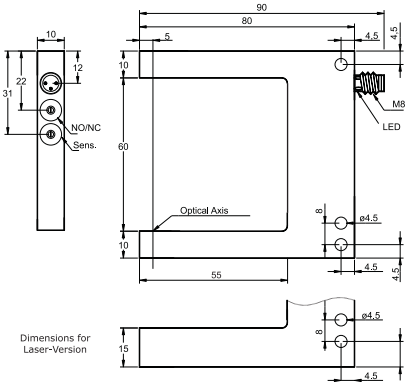


FLx 50…
10…35 VDC
< 30 mA
200 mA, short-circuit-proof
2.5 V @ 200 mA
red-light: 2.5 kHz | laser: 10 kHz
red-light: Ø0.3mm | laser: Ø0.03 mm
270° Potentiometer
< 0.2 mm
0.01 mm
-10…+60 °C
50.000 lux
500 V
Aluminum
IP 67
Red-Light / Laser Glass Window
FLE50 PS/M8
FLE50 NS/M8
FLA50 PS/M8
FLA50 NS/M8
FLD50 PS/M8
FLD50 NS/M8
M8/3…

60 mm

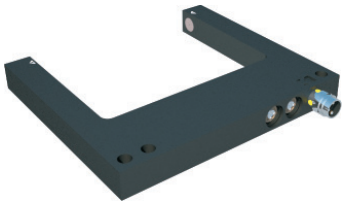


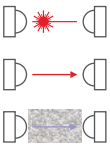


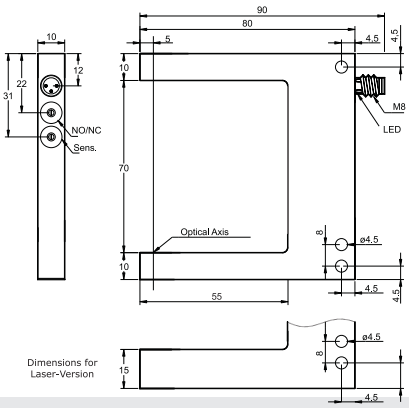


FLx 60…
10…35 VDC
< 30 mA
200 mA, short-circuit-proof
2.5 V @ 200 mA
red-light: 2.5 kHz | laser: 10 kHz
Ø 0.03 mm
270° Potentiometer
< 0.2 mm
0.01 mm
-10…+60 °C
50.000 lux
500 V
Aluminum
IP 67
Red-Light / Laser Glass Window
FLE60 PS/M8
FLE60 NS/M8
FLA60 PS/M8
FLA60 NS/M8
FLD60 PS/M8
FLD60 NS/M8
M8/3…

70 mm



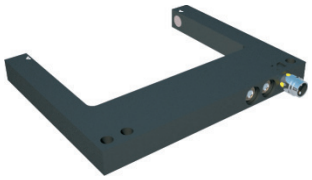


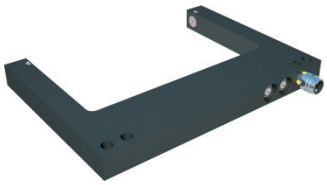


FLx 70…
10…35 VDC
< 30 mA
200 mA, short-circuit-proof
2.5 V @ 200 mA
red-light: 2.5 kHz | laser: 10 kHz
red-light: Ø0.3mm | laser: Ø0.03 mm
270° Potentiometer
< 0.2 mm
0.01 mm
-10…+60 °C
50.000 lux
500 V
Aluminum
IP 67
Red-Light / Laser Glass Window
FLE70 PS/M8
FLE70 NS/M8
FLA70 PS/M8
FLA70 NS/M8
FLD70 PS/M8
FLD70 NS/M8
M8/3…

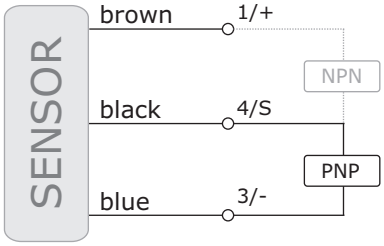
Fork-Light-Barriers

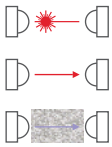
80 mm	90 mm

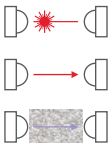




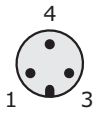
Output Schematics

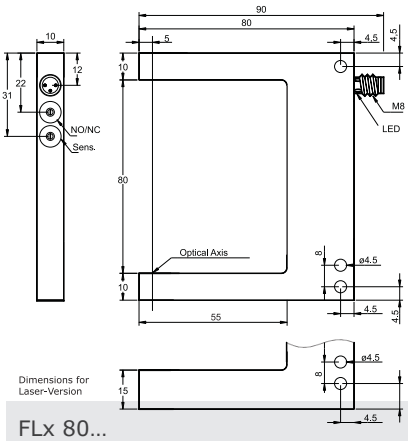


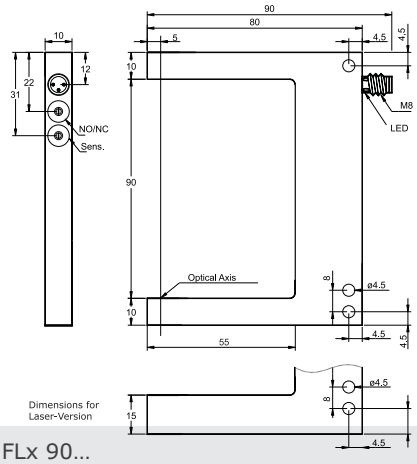




Connector M8





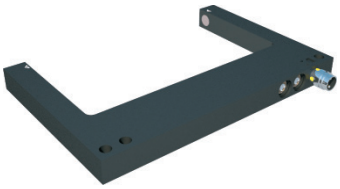


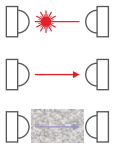
The use of this sensors is not permitted if the safety of people is relying upon it.

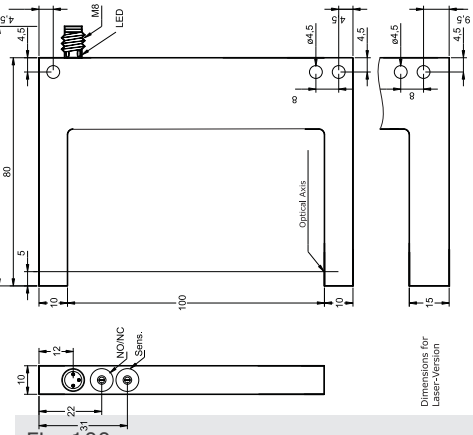
SPECIFICATIONS	FLx 80...	FLx 90...
Operating Voltage	10...35 VDC	10...35 VDC
Current Consumption	< 30 mA	< 30 mA
Output Current	200 mA, short-circuit-proof	200 mA, short-circuit-proof
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	red-light: 2.5 kHz | laser: 10 kHz	red-light: 2.5 kHz | laser: 10 kHz
Resolution	red-light: Ø0.3mm | laser: Ø0.03 mm	red-light: Ø0.3mm | laser: Ø0.3 mm
Adjustment	270° Potentiometer	270° Potentiometer
Switching Hysteresis	< 0.2 mm	< 0.2 mm
Repeatability	0.01 mm	0.01 mm
Operating Temperature	-10...+60 °C	-10...+60 °C
Ambient Light Immunity	50.000 lux	70.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Red-Light / Laser Glass Window	Red-Light / Laser Glass Window
Article Code		
PNP, NO / NC - Red-Light	FLE80 PS/M8	FLE90 PS/M8
NPN, NC / NC - Red-Light	FLE80 NS/M8	FLE90 NS/M8
PNP, NO / NC - Laser	FLA80 PS/M8	FLA90 PS/M8
NPN, NO / NC - Laser	FLA80 NS/M8	FLA90 NS/M8
PNP, NO / NC - Dirt Immune	FLD80 PS/M8	FLD90 PS/M8
NPN, NO / NC - Dirt Immune	FLD80 NS/M8	FLD90 NS/M8
Recommended Connecting Cable	M8/3...	M8/3...

Fork-Light-Barriers

100 mm

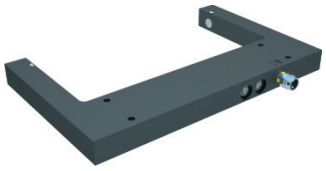


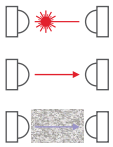


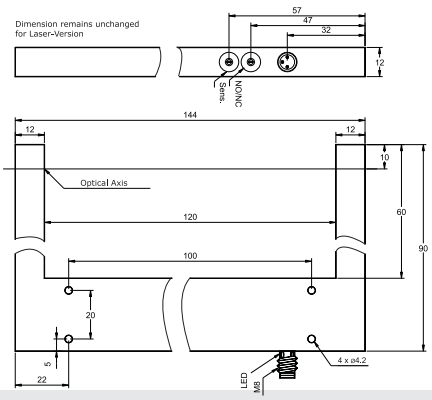


FLx 100…
10…35 VDC
< 30 mA
200 mA, short-circuit-proof
2.5 V @ 200 mA
red-light: 2.5 kHz | laser: 10 kHz
red-light: Ø0.3mm | laser: Ø0.3 mm
270° Potentiometer
< 0.2 mm
0.01 mm
-10…+60 °C
70.000 lux
500 V
Aluminum
IP 67
Red-Light / Laser Glass Window
FLE100 PS/M8
FLE100 NS/M8
FLA100 PS/M8
FLA100 NS/M8
FLD100 PS/M8
FLD100 NS/M8
M8/3…

120 mm

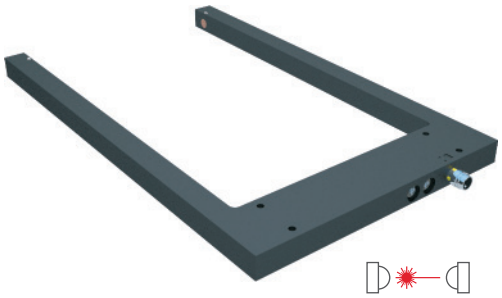


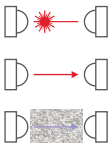


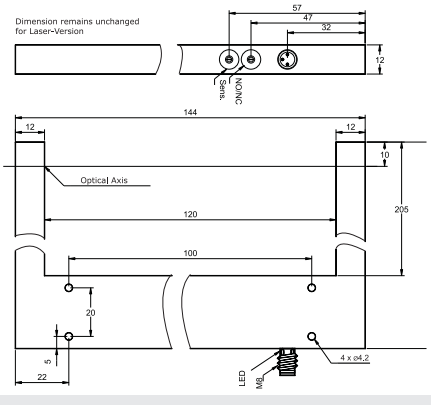


FLx 120…
10…35 VDC
< 30 mA
200 mA, short-circuit-proof
2.5 V @ 200 mA
red-light: 2.5 kHz | laser: 10 kHz
Ø 0.03 mm
270° Potentiometer
< 0.2 mm
0.01 mm
-10…+60 °C
50.000 lux
500 V
Aluminum
IP 67
Red-Light / Laser Glass Window
FLE120 PS/M8
FLE120 NS/M8
FLA120 PS/M8
FLA120 NS/M8
FLD120 PS/M8
FLD120 NS/M8
M8/3…

120/205 mm





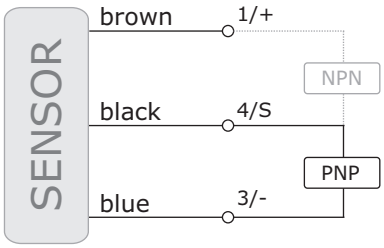


FLx 120/205…
10…35 VDC
< 30 mA
200 mA, short-circuit-proof
2.5 V @ 200 mA
red-light: 2.5 kHz | laser: 10 kHz
red-light: Ø 0.3mm | laser: Ø0.03 mm
270° Potentiometer
< 0.2 mm
0.01 mm
-10…+60 °C
50.000 lux
500 V
Aluminum
IP 67
Red-Light / Laser Glass Window
FLE120/205 PS/M8
FLE120/205 NS/M8
FLA120/205 PS/M8
FLA120/205 NS/M8
FLD120/205 PS/M8
FLD120/205 NS/M8
M8/3…

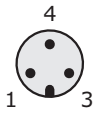
Fork-Light-Barriers

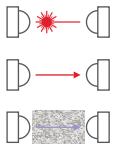
180 mm	220 mm

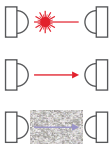
Output Schematics

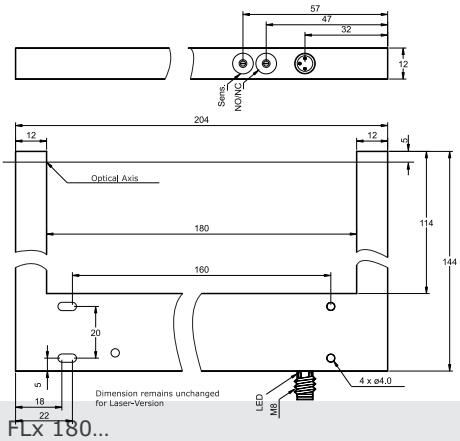


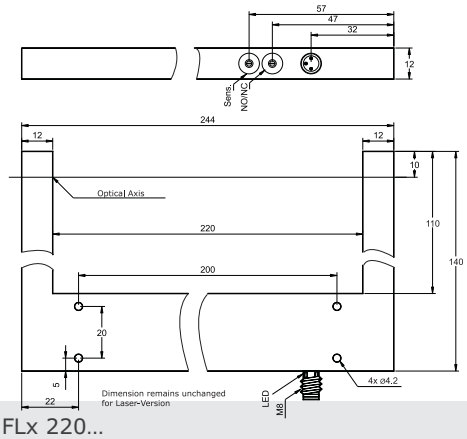
Connector M8









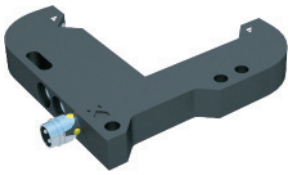


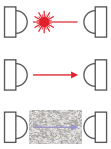
The use of this sensors is not permitted if the safety of people is relying upon it.

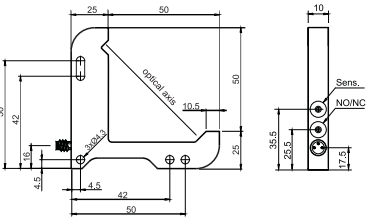
SPECIFICATIONS	FLx 180...	FLx 220...
Operating Voltage	10...35 VDC	10...35 VDC
Current Consumption	< 30 mA	< 30 mA
Output Current	200 mA, short-circuit-proof	200 mA, short-circuit-proof
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	red-light: 2.5 kHz | laser: 10 kHz	red-light: 2.5 kHz | laser: 10 kHz
Resolution	red-light: Ø0.3mm | laser: Ø0.03 mm	red-light: Ø0.3mm | laser: Ø0.03 mm
Adjustment	270° Potentiometer	270° Potentiometer
Switching Hysteresis	< 0.2 mm	< 0.2 mm
Repeatability	0.01 mm	0.01 mm
Operating Temperature	-10...+60 °C	-10...+60 °C
Ambient Light Immunity	50.000 lux	50.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Red-Light / Laser Glass Window	Red-Light / Laser Glass Window
Article Code		
PNP, NO / NC - Red-Light	FLE180 PS/M8	FLE220 PS/M8
NPN, NC / NC - Red-Light	FLE180 NS/M8	FLE220 NS/M8
PNP, NO / NC - Laser	FLA180 PS/M8	FLA220 PS/M8
NPN, NO / NC - Laser	FLA180 NS/M8	FLA220 NS/M8
PNP, NO / NC - Dirt Immune	FLD180 PS/M8	FLD220 PS/M8
NPN, NO / NC - Dirt Immune	FLD180 NS/M8	FLD220 NS/M8
Recommended Connecting Cable	M8/3...	M8/3...

Fork-Light-Barriers

50 mm

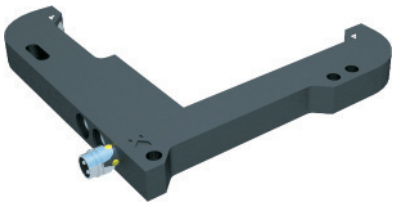


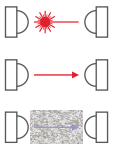


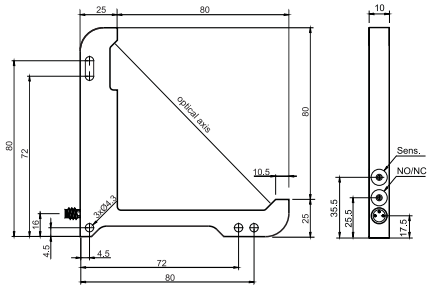


LLx50…
10…35 VDC
< 30 mA
200 mA, short-circuit-proof
2.5 V @ 200 mA
red-light, IR: 2.5 kHz | laser: 10 kHz
270° Potentiometer
< 0.2 mm
0.01 mm
-10…+60 °C
50.000 lux
500 V
Aluminum
IP 67
Infrared / Red-Light / Laser Glass Window
LLE50 PS/M8
LLE50 NS/M8
LLA50 PS/M8
LLA50 NS/M8
LLD50 PS/M8
LLD50 NS/M8
M8/3…

80 mm

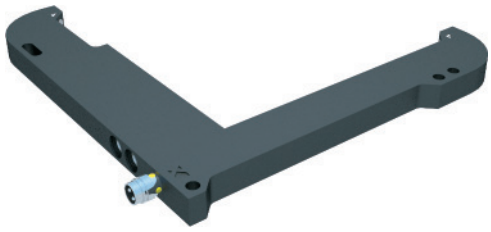


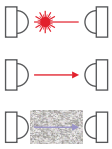


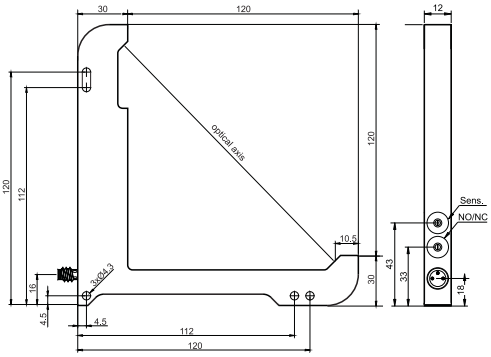


LLx 80…
10…35 VDC
< 30 mA
200 mA, short-circuit-proof
2.5 V @ 200 mA
red-light, IR: 2.5 kHz | laser: 10 kHz
270° Potentiometer
< 0.2 mm
0.01 mm
-10…+60 °C
50.000 lux
500 V
Aluminum
IP 67
Infrared / Red-Light / Laser Glass Window
LLE80 PS/M8
LLE80 NS/M8
LLA80 PS/M8
LLA80 NS/M8
LLD80 PS/M8
LLD80 NS/M8
M8/3…

120 mm







LLx 120…
10…35 VDC
< 30 mA
200 mA, short-circuit-proof
2.5 V @ 200 mA
red-light, IR: 2.5 kHz | laser: 10 kHz
270° Potentiometer
< 0.2 mm
0.01 mm
-10…+60 °C
50.000 lux
500 V
Aluminum
IP 67
Infrared / Red-Light / Laser Glass Window
LLE120 PS/M8
LLE120 NS/M8
LLA120 PS/M8
LLA120 NS/M8
LLD120 PS/M8
LLD120 NS/M8
M8/3…

XECRO

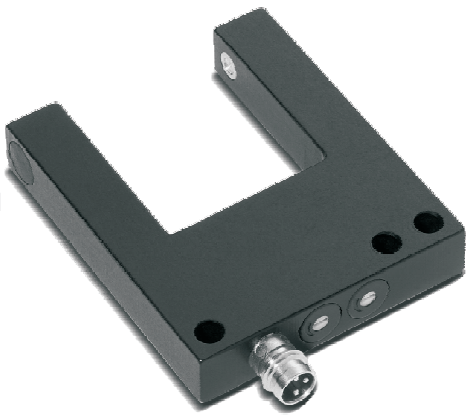
Xecro is an independent company. We develop, produce and market industrial sensors and general industrial electronics. Our portfolio is divided into two main areas:

General use sensors built to a very high technical standard in conjunction with first class housing units. Details of these products can be found in the 'Products' category on our website at www.xecro.com.

Products which are specially developed in accordance with our customers requirements. These highly specialised systems are not featured in our catalogue.

Xecro is able to accomplish specific customer requirements in the area of inductive, capacitive and optical sensors quickly and reliable thanks to our flexible corporate structure.
We could develop a customised system for your business too based on the following technology:

- Optical, dirt resistant sensors
- Optical, high temperature resistant sensors
- Capacitive high temperature resistant sensors
- Inductive sensors, pressure resistant
- Inductive sensors, high temperature resistant
- Inductive sensors, low temperature resistant
- Inductive sensors, beyond (!) military standard
- Inductive sensors, certified for aviation use
- Industrial control equipment
- General industrial electronic. e.g.
    - ° Control units
    - ° Equipment with Profibus
    - ° Equipment with DeviceNet
    - ° ...



The special housings are designed in 3D. IGES or STEP files can be provided in advance to check that the later integration is possible.