

Fork through-beam sensors



Features

- Wide range of sizes: fork widths from 2 to 220 mm
- Metal housings
- Integrated evaluation unit
- Connection by means of S8 connector
- Degree of protection IP 67
- Adjustable sensitivity
- Red, infrared, or laser light

Benefits

- Clocked or non-clocked light
- Red-light and laser versions mountable side by side
- Detection of metallic and non-metallic parts
- Extremely high resolution (parts from $\varnothing 50 \mu\text{m}$)
- Short response time
- Compact housings
- Easy installation

Fork through-beam sensors

Contrinex photoelectric fork sensors are available in various sizes, and consequently suitable for a large range of applications. They feature a robust, compact and universally mountable housing. They work according to the principle of through-beam sensors, replacing them wherever long operating distances are not required. Their advantage, compared to solutions with separate emitter and receiver, lies in their simple installation. Only one component has to be installed, there is no need for mechanical alignment, and the wiring is less demanding. These devices are suitable for the whole field of assembly technology.

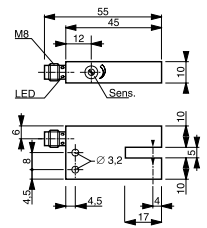
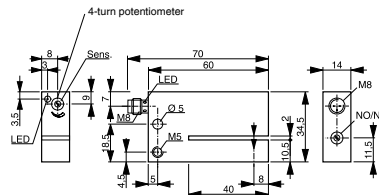
The sensors are available with clocked or non-clocked light. Their features differ with respect to response time and ambient light limit.

The very short response time permits safe detection at high target speeds, even of small parts. All devices are equipped with sensitivity adjustment.

2 mm



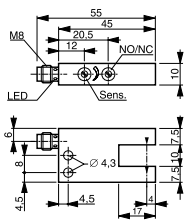
5 mm



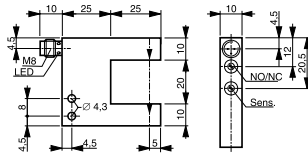
Technical data (at + 20 °C / + 68 °F, 24 VDC)		
Fork width	2 mm	5 mm
Emitted light	IR non-clocked	IR clocked
Supply voltage range	10 ... 35 VDC	10 ... 35 VDC
Output current	200 mA	200 mA
Short-circuit protection	yes	yes
No-load supply current	≤ 30 mA	≤ 35 mA
Voltage drop	≤ 2.8 V	≤ 2.5 V
Operating frequency	10 kHz	1 kHz
Resolution	Ø 0.4 mm	Ø 0.5 mm
Hysteresis	≤ 0.1 mm	≤ 0.2 mm
Repeat accuracy	0.05 mm	0.01 mm
Laser power	-	-
Laser protection degree	-	-
Ambient temperature range	-10 ... +60 °C (+14 ... +140 °F)	-10 ... +60 °C (+14 ... +140 °F)
Max. ambient light	10 kLux	20 kLux
Degree of protection	IP 67	IP 67
Housing material	die-cast zinc	aluminum
Type (bold: preferred types)	part reference	part reference
PNP, N.O. (dark-ON)		LGS-0005-003
PNP, N.C. (light-ON)		LGS-0005-004
PNP, N.O./N.C. switchable	LGS-0002-015	
NPN, N.O./N.C. switchable	LGS-0002-016	S8 3p
Connector type	S8 3p	ACO-0000-001
PNP/NPN converter*		

* see data sheet on www.contrinex.com

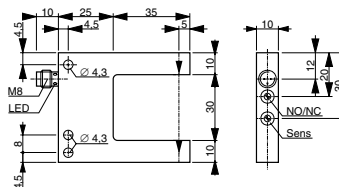
10 mm



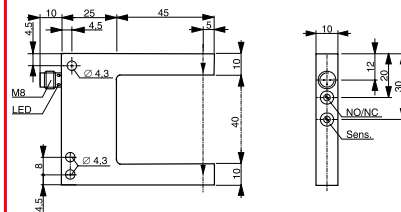
20 mm



30 mm



40 mm



10 mm	10 mm	20 mm	30 mm	40 mm
IR clocked	IR non-clocked	clocked red light **	clocked red light **	clocked red light **
10 ... 35 VDC	10 ... 35 VDC	10 ... 35 VDC	10 ... 35 VDC	10 ... 35 VDC
200 mA	200 mA	200 mA	200 mA	200 mA
yes	yes	yes	yes	yes
≤ 30 mA	≤ 45 mA	≤ 30 mA	≤ 30 mA	≤ 30 mA
≤ 2.8 V	≤ 2.5 V	≤ 2.8 V	≤ 2.8 V	≤ 2.8 V
1 kHz	10 kHz	4 kHz	4 kHz	4 kHz
Ø 0.3 mm	Ø 0.5 mm	Ø 0.4 mm	Ø 0.5 mm	Ø 0.5 mm
≤ 0.1 mm	≤ 0.2 mm	≤ 0.1 mm	≤ 0.25 mm	≤ 0.25 mm
0.01 mm	0.01 mm	0.02 mm	0.02 mm	0.04 mm
-	-	-	-	-
-	-	-	-	-
-10 ... +60 °C (+14 ... +140 °F)	-10 ... +60 °C	-10 ... +60 °C (+14 ... +140 °F)	-10 ... +60 °C (+14 ... +140 °F)	-10 ... +60 °C (+14 ... +140 °F)
20 kLux	1 kLux	70 kLux	30 kLux	30 kLux
IP 67	IP 67	IP 67	IP 67	IP 67
die-cast zinc	die-cast zinc	die-cast zinc	die-cast zinc	die-cast zinc
part reference	part reference	part reference	part reference	part reference
LGS-0010-005	LGS-0010-015	LGS-0020-005-502	LGS-0030-005-502	LGS-0040-005-502
	LSG-0010-016		LGS-0030-006-502	LGS-0040-006-502
S8 3p	S8 3p	S8 3p	S8 3p	S8 3p
ACO-0000-001		ACO-0000-001		

** also available with IR