

Forked photoelectric sensors

Overview and advantages



Wide range of models with robust metal housing and glass cover



10 ... 30VDC voltage with PNP and NPN transistor output



High switching frequency up to 5000Hz for detection of fast events



- Measurement range of 25mm
- Resolution of 14µm



Mouth width of 29mm or 100mm



Connection via M8 respectively M12 connectors or cable



Easy adjustment for optimal adaptation to the application



Applications:

- Detection of labels
- Detection of transparent labels
- Counting function
- Detection of small parts
- Edge detection
- Diameter detection
- Detection of multiple objects





Operating principle	Designation	Mouth width [mm]	Mouth depth [mm]	Operating voltage		Output		Switching frequency	Switching		
				10 ... 30VDC	24VDC	PNP transistor	NPN transistor		Light	Dark	
	GK 14/24 L	1		•		•	•	5000Hz	•		
	GS 04M/P-30/35-01-S8	30	35	•		•		2500Hz	•		
	GS 04M/P-30/35-02-S8	30	35	•		•		2500Hz		•	
	GS 04M/P-50/55-01-S8	50	55	•		•		2500Hz	•		
	GS 04M/P-50/55-02-S8	50	55	•		•		2500Hz		•	
	GS 04M/P-80/55-01-S8	80	55	•		•		2500Hz	•		
	GS 04M/P-80/55-02-S8	80	55	•		•		2500Hz		•	
	GS 04M/P-120/55-01-S8	120	55	•		•		2500Hz	•		
	GS 04M/P-120/55-02-S8	120	55	•		•		2500Hz		•	
	GS 04M/P-220/55-01-S8	220	55	•		•		2500Hz	•		
	GS 04M/P-220/55-02-S8	220	55	•		•		2500Hz		•	
	GS 04M/P-30/35-03-S8	30	35	•		•		2500Hz	•		
	GS 04M/P-30/35-04-S8	30	35	•		•		2500Hz		•	
	GS 04M/P-50/55-03-S8	50	55	•		•		2500Hz	•		
	GS 04M/P-50/55-04-S8	50	55	•		•		2500Hz		•	
	GS 04M/P-80/55-03-S8	80	55	•		•		2500Hz	•		
	GS 04M/P-80/55-04-S8	80	55	•		•		2500Hz		•	
	GS 04M/P-120/55-03-S8	120	55	•		•		2500Hz	•		
	GS 04M/P-120/55-04-S8	120	55	•		•		2500Hz		•	
	GS 04M/P-220/55-03-S8	220	55	•		•		2500Hz	•		
	GS 04M/P-220/55-04-S8	220	55	•		•		2500Hz		•	
	GS 04M/P-50/55-06-S8	50	55	•		•		2500Hz		•	
	GS 04M/P-80/55-06-S8	80	55	•		•		2500Hz		•	
	GS 04M/P-120/55-06-S8	120	55	•		•		2500Hz		•	
	GS 04M/P-220/55-06-S8	220	55	•		•		2500Hz		•	
	GS 04M/P-20/25-07-S8	20	25	•		•		2500Hz	•	•	
	GS 04M/P-30/35-07-S8	30	35	•		•		2500Hz	•	•	
	GS 04M/P-50/55-07-S8	50	55	•		•		2500Hz	•	•	
	GS 04M/P-80/55-07-S8	80	55	•		•		2500Hz	•	•	
	GS 04M/P-120/55-07-S8	120	55	•		•		2500Hz	•	•	
	GS 04M/P-220/55-07-S8	220	55	•		•		2500Hz	•	•	
	GS 04M/P-50/25-10-S8	50	25	•		•		2500Hz		•	
	GS 05/24 G, 150 L	2			•		•	•	5000Hz	•	
	GS 05/24 G	2			•		•	•	5000Hz	•	
	GS 05/24 G.1	5			•		•	•	5000Hz	•	
	GS 05/24 GD	2			•		•	•	5000Hz		•
	GS 05/24 GD.1	5			•		•	•	5000Hz		•
	GS 05/24 GD.2	2			•		•	•	5000Hz		•
	GS 10/22 G	2			•			•	1000Hz	•	•
	GS 10/4 G	2			•		•		1000Hz	•	
	GS 10/4 GL8	2			•		•		1000Hz	•	
	GS 12/24 GL	5			•		•	•	5000Hz	•	
GS 21/4 G	8				•	•		1000Hz	•		
GSU 14/24 L	4	67		•		•	•		•		
GSU 14/24 DL	4	67		•		•	•			•	



Operating principle	Designation	Mouth width [mm]	Mouth depth [mm]	Operating voltage		Output									
				10 ... 30VDC	18 ... 30VDC	1x Output Analogue Voltage	1x Output Analogue Current	2x Output Analogue Voltage	2x Output Analogue Current	1x RS 232	1x RS 422	1x Output PNP	2x Output PNP	1x Input	
	GS 754M/D-29/42-101-S12	29	42		•						•		•		
	GS 754M/D-29/42-102-S12	29	42		•						•		•		
	GS 754M/D-29/42-201-S12	29	42		•							•			
	GS 754M/D-29/42-202-S12	29	42		•							•			
	GS 754M/V-29/42-501-S12	29	42		•	•							•		
	GS 754M/V-29/42-502-S12	29	42		•	•							•		
	GS 754M/V-29/42-601-S12	29	42		•		•						•		
	GS 754M/V-29/42-602-S12	29	42		•		•						•		
	GS 754M/V-29/42-511-S12	29	42		•	•									•
	GS 754M/V-29/42-512-S12	29	42		•	•									•
	GS 754M/V-29/42-611-S12	29	42		•		•								•
	GS 754M/V-29/42-612-S12	29	42		•		•								•
	GS 754M/D-100/42-102-S12	100	42		•						•	•	•		
	GS 754M/V-100/42-502-S12	100	42		•			•						•	•
	GS 754M/V-100/42-602-S12	100	42		•				•					•	•

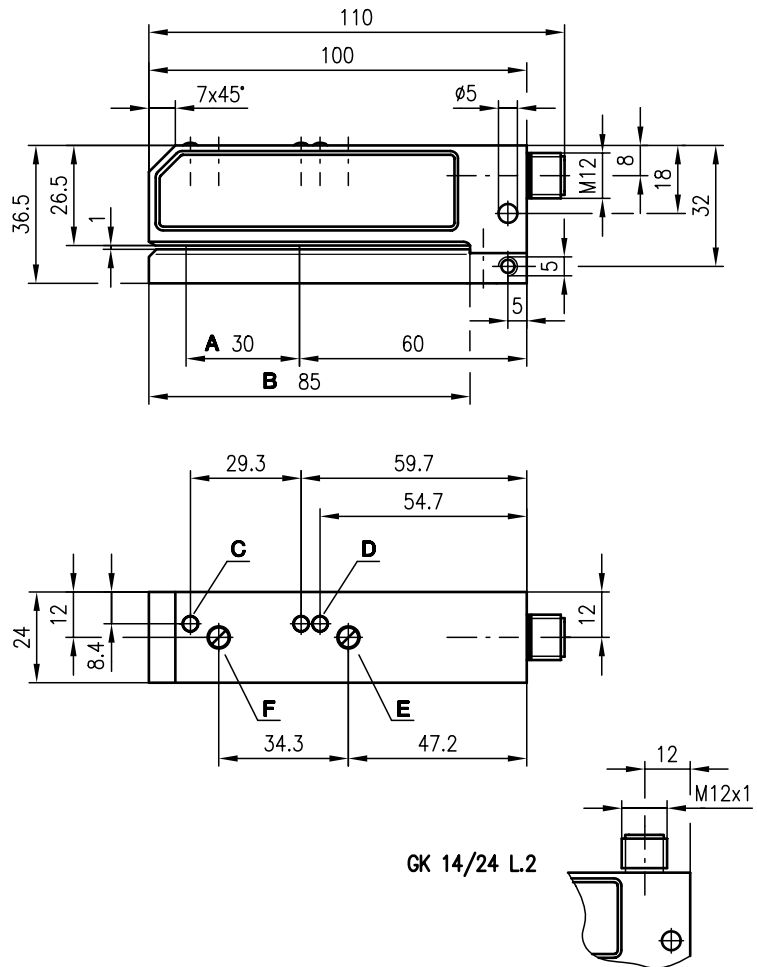


GK 14

Capacitive forked sensor



Dimensioned drawing



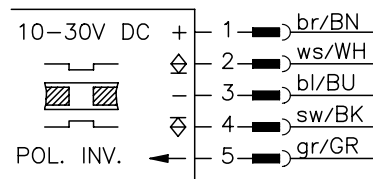
1 mm



- Forked sensor for reliable detection of transparent and opaque labels
- PNP and NPN transistor output for optimum adaptation to the controller
- Robust metal housing with bevelled inlet edges
- Inverting input for easy adaptation of the output signal level

- A Sensor
- B Mouth depth
- C Display switching output
- D Display base adjustment
- E Base adjustment
- F Sensitivity adjustment:
Clockwise rotation = increase sensitivity

Electrical connection



We reserve the right to make changes • CS_a04e.fm



Accessories:
 (available separately • see page 762)

- M12 connectors (KD ...)



Specifications

Optical data

Mouth width	0.9mm ± 0.1mm
Mouth depth	85mm

Timing

Switching frequency ¹⁾	5000Hz
Response time	0.1ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 35mA
Switching output	1 PNP transistor output 1 NPN transistor output
Function characteristics	direction dependent, reversible
Signal voltage high/low	$\geq (U_B - 2V) \leq 2V$
Output current	200mA
Sensitivity	adjustable with multiturn potentiometer
Base adjustment	adjustable with multiturn potentiometer

Indicators

LED yellow	label/gap
LED yellow (2x)	base adjustment

Mechanical data

Housing	aluminium, anodised
Weight	175g
Connection type	M12 connector, 5-pin

Environmental data

Ambient temp. (operation/storage)	0°C ... +60°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

Options

Inverting input high/low	$\geq 8V \leq 2V$
Input resistance	10k Ω

1) max. label speed 10m/s, min. label spacing 2mm

2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Diagrams

Order guide

Designation	Part No.
GK 14/24 L	500 26371

Remarks

- **Base setting**
 - Set sensitivity to max. (turn potentiometer to the right), then turn back 1/2 turn to the left.
 - Base adjustment without labels such that both LEDs are equally bright.
 - If necessary, reduce the sensitivity setting (in steps of 1/4 turn to the left).
- **Base adjustment**

Perform after new mounting, cleaning, sensitivity increase.
- **Switching behaviour**

A signal change on the switching output occurs when a label enters at the minimum velocity. The output signal remains constant until the next edge of an existing or entering label is detected.



GS 04

Forked photoelectric sensors

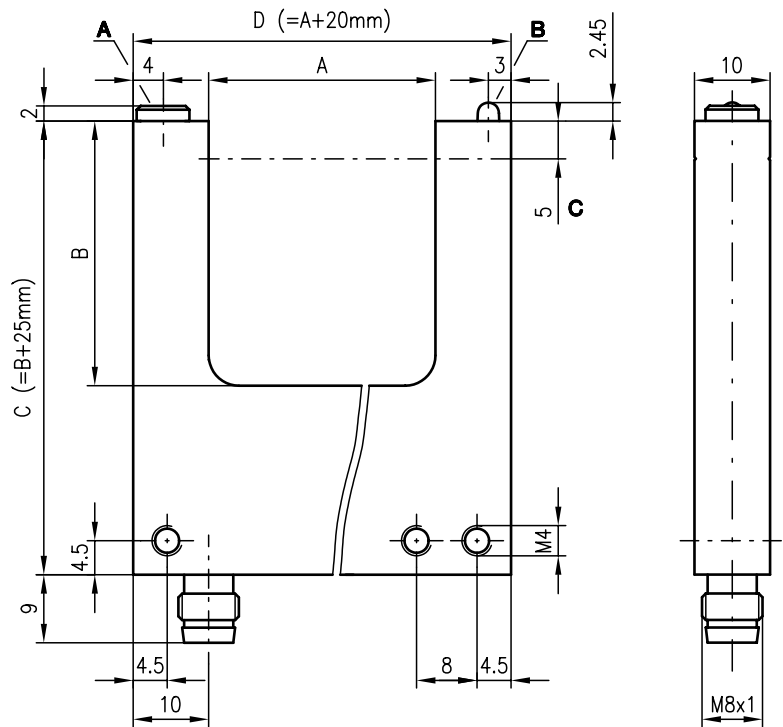


30/50/80/120/220 mm



- Sensitivity adjustment for optimal adaptation to the application
- Sensitivity adjustment and indicator LED on the leg front
- Robust metal housing and glass optics for protection against environmental influences
- Transmitter and receiver are installed in the same housing, therefore easy and fast mounting (excessive mounting brackets and extensive alignment not necessary)

Dimensioned drawing



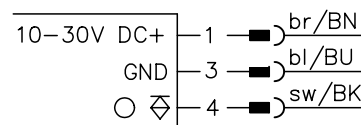
- A Sensitivity adjustment
- B Indicator diode
- C Optical axis

	A mouth width	B mouth depth	C	D
GS 04M/P-30/35-...	30	35	60	50
GS 04M/P-50/55-...	50	55	80	70
GS 04M/P-80/55-...	80	55	80	100
GS 04M/P-120/55-...	120	55	80	140
GS 04M/P-220/55-...	220	55	80	240

Electrical connection

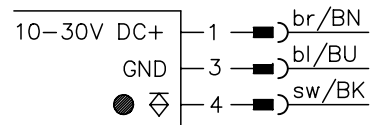
Light switching types

GS 04M/P-...01...



Dark switching types

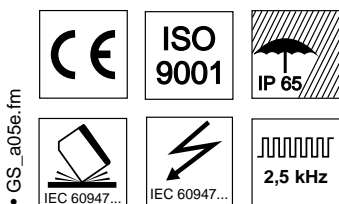
GS 04M/P-...02...



Accessories:

(available separately • see page 762)

- M8 connectors (KD ...)



We reserve the right to make changes • GS_a05e.fm



Specifications

Optical data

Mouth width	30/50/80/120/220mm
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	2500Hz
Response time	0.2ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	PNP transistor output
Function characteristics	light/dark switching
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	200mA
Sensitivity	adjustable

Indicators

LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

Mechanical data

Housing	aluminium, anodised
Weight	see order guide
Optics cover	glass
Connection type	M8 connector, 3-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)

2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Resolution (smallest object)

Mouth width [mm]	Resolution [mm]
30	1
50	1
80	1.5
120	1.5
220	2

Diagrams

Order guide

Selection table		Order code →									
Equipment ↓		GS 04M/P-30/35-01-S8 Part No. 500 81206	GS 04M/P-30/35-02-S8 Part No. 500 81207	GS 04M/P-50/55-01-S8 Part No. 500 81210	GS 04M/P-50/55-02-S8 Part No. 500 81211	GS 04M/P-80/55-01-S8 Part No. 500 81216	GS 04M/P-80/55-02-S8 Part No. 500 81217	GS 04M/P-120/55-01-S8 Part No. 500 81220	GS 04M/P-120/55-02-S8 Part No. 500 81221	GS 04M/P-220/55-01-S8 Part No. 500 81224	GS 04M/P-220/55-02-S8 Part No. 500 81225
Switching	light switching	●		●		●		●		●	
	dark switching		●		●		●		●		●
Mouth width	30mm	●	●								
	50mm			●	●						
	80mm					●	●				
	120mm							●	●		
	220mm									●	●
Weight in g		40	40	60	60	80	80	100	100	160	160

Remarks

- Versions with NPN switching output or other mouth width and depth on request.



GS 04

Forked photoelectric sensors

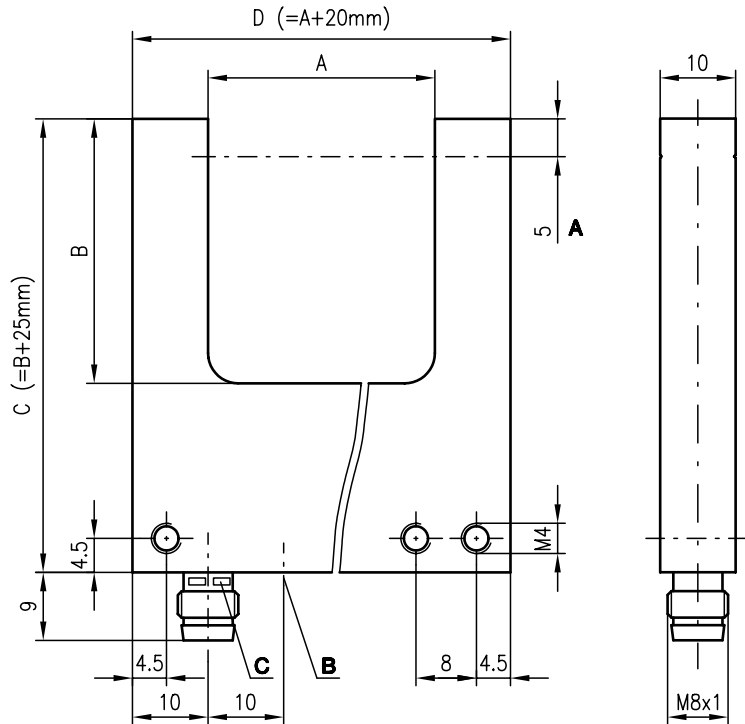


30/50/80/120/220 mm



- Sensitivity adjustment for optimal adaptation to the application
- Sensitivity adjustment on the back of the fork
- Robust metal housing and glass optics for protection against environmental influences
- Transmitter and receiver are installed in the same housing, therefore easy and fast mounting (excessive mounting brackets and extensive alignment not necessary)

Dimensioned drawing



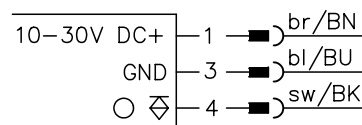
- A** Optical axis
- B** Sensitivity adjustment
- C** Indicator diode

	A Mouth width	B Mouth depth	C	D
GS 04M/P-30/35-...	30	35	60	50
GS 04M/P-50/55-...	50	55	80	70
GS 04M/P-80/55-...	80	55	80	100
GS 04M/P-120/55-...	120	55	80	140
GS 04M/P-220/55-...	220	55	80	240

Electrical connection

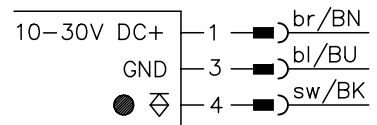
Light switching types

GS 04M/P-...03...



Dark switching types

GS 04M/P-...04...

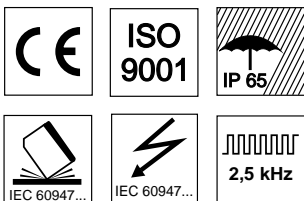


Accessories:

(available separately • see page 762)

- M8 connectors (KD ...)

We reserve the right to make changes • GS_a06e.fm





Specifications

Optical data

Mouth width	30/50/80/120/220mm
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	2500Hz
Response time	0.2ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	PNP transistor output
Function characteristics	light/dark switching
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	200mA
Sensitivity	adjustable

Indicators

LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

Mechanical data

Housing	aluminium, anodised
Weight	see order guide
Optics cover	glass
Connection type	M8 connector, 3-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)

2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Resolution (smallest object)

Mouth width [mm]	Resolution [mm]
30	1
50	1
80	1.5
120	1.5
220	2

Diagrams

Order guide

Selection table		Order code →									
Equipment ↓		GS 04M/P-30/35-03-S8 Part No. 500 81208	GS 04M/P-30/35-04-S8 Part No. 500 81209	GS 04M/P-50/55-03-S8 Part No. 500 81212	GS 04M/P-50/55-04-S8 Part No. 500 81213	GS 04M/P-80/55-03-S8 Part No. 500 81218	GS 04M/P-80/55-04-S8 Part No. 500 81219	GS 04M/P-120/55-03-S8 Part No. 500 81222	GS 04M/P-120/55-04-S8 Part No. 500 81223	GS 04M/P-220/55-03-S8 Part No. 500 81226	GS 04M/P-220/55-04-S8 Part No. 500 81227
Switching	light switching	●		●		●		●		●	
	dark switching		●		●		●		●		●
Mouth width	30mm	●	●								
	50mm			●	●						
	80mm					●	●				
	120mm							●	●		
	220mm									●	●
Weight in g		40	40	60	60	80	80	100	100	160	160

Remarks

- Version with NPN switching output or other mouth width and depth on request.



GS 04

Forked photoelectric sensors

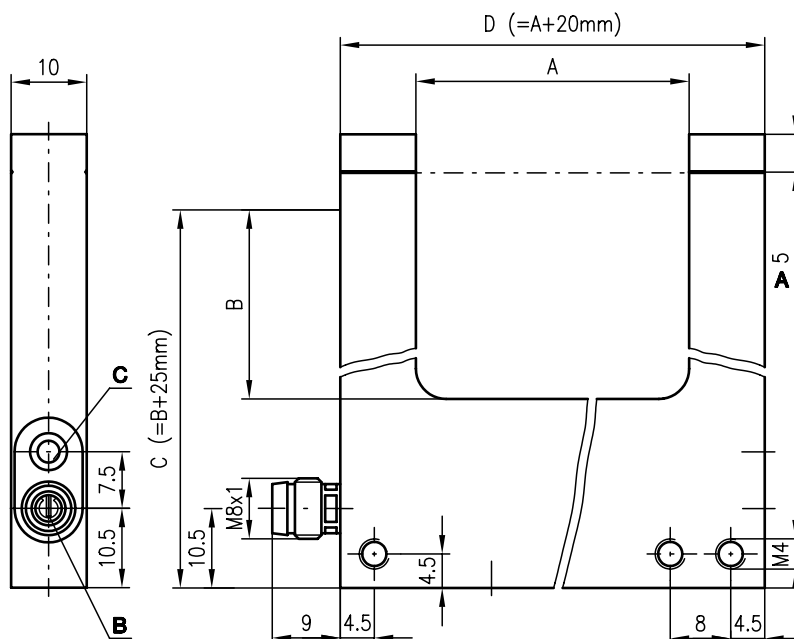


50/80/120/220 mm



- Sensitivity adjustment for optimal adaptation to the application
- Robust metal housing and glass optics for protection against environmental influences
- Transmitter and receiver are installed in the same housing, therefore easy and fast mounting (excessive mounting brackets and extensive alignment not necessary)

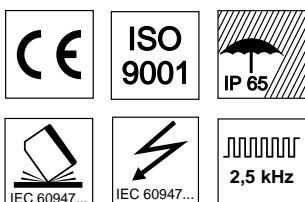
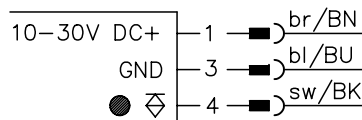
Dimensioned drawing



- A** Optical axes
- B** Sensitivity adjustment
- C** Indicator diode

	A Mouth width	B Mouth depth	C	D
GS 04M/P-50/55-...	50	55	80	70
GS 04M/P-80/55-...	80	55	80	100
GS 04M/P-120/55-...	120	55	80	140
GS 04M/P-220/55-...	220	55	80	240

Electrical connection



Accessories:

(available separately • see page 762)

- M8 connectors (KD ...)

We reserve the right to make changes • GS_at7e.fm



Specifications

Optical data

Mouth width	50/80/120/220mm
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	2500Hz
Response time	0.2ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	PNP transistor output
Function characteristics	dark switching
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	200mA
Sensitivity	adjustable

Indicators

LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

Mechanical data

Housing	aluminium, anodised
Weight	see order guide
Optics cover	glass
Connection type	M8 connector, 3-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)

2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Resolution (smallest object)

Mouth width [mm]	Resolution [mm]
20	1
80	1.5
120	1.5
220	2

Diagrams

Order guide

Selection table		Order code →						
Equipment ↓		GS 04M/P-50/55-06-S8 Part No. 500 81471	GS 04M/P-80/55-06-S8 Part No. 500 30731	GS 04M/P-120/55-06-S8 Part No. 500 30732	GS 04M/P-220/55-06-S8 Part No. 500 30733			
Switching	dark switching	●	●	●	●			
Mouth width	50mm	●						
	80mm		●					
	120mm			●				
	220mm				●			
Weight in g		60	80	100	160			

Remarks

- Versions with NPN switching output or other mouth width and depth on request.



GS 04

Forked photoelectric sensors

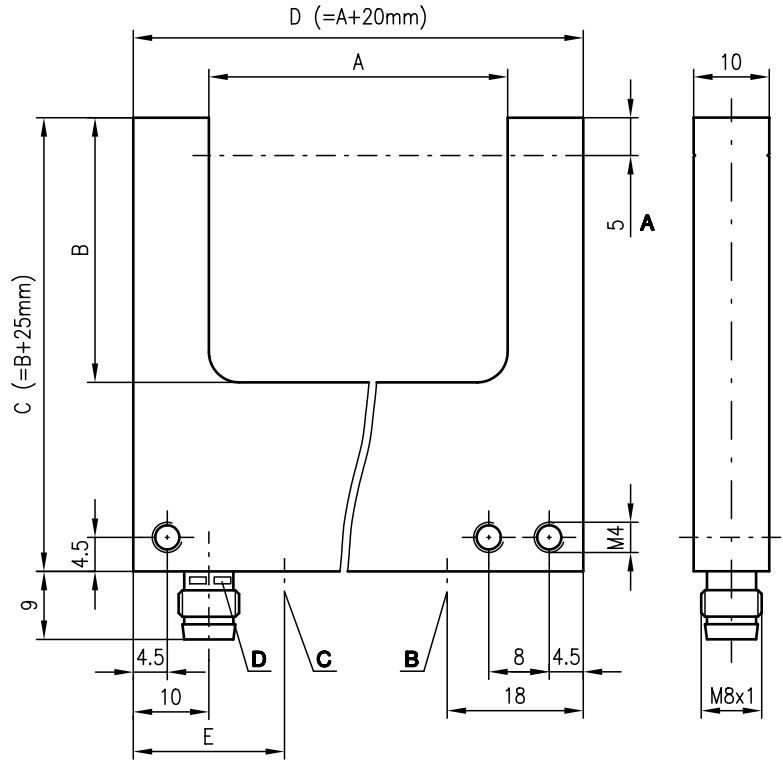


20mm



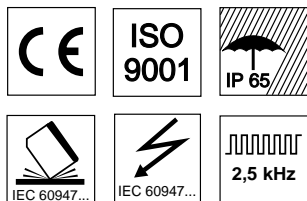
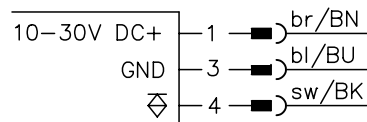
- Sensitivity adjustment and light/dark switching for optimal adaptation to the application
- Sensitivity adjustment on the back of the fork
- Robust metal housing and glass optics for protection against environmental influences
- Transmitter and receiver are installed in the same housing, therefore easy and fast mounting (excessive mounting brackets and extensive alignment not necessary)

Dimensioned drawing



- A** Optical axes
- B** Light/dark switching
- C** Sensitivity adjustment
- D** Indicator diode

Electrical connection



Accessories:
 (available separately • see page 762)

- M8 connectors (KD ...)

We reserve the right to make changes • GS_at16e.fm



Specifications

Optical data

Mouth width	20mm
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	2500Hz
Response time	0.2ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	PNP transistor output
Function characteristics	light/dark switching reversible
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	200mA
Sensitivity	adjustable

Indicators

LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

Mechanical data

Housing	aluminium, anodised
Weight	35g
Optics cover	glass
Connection type	M8 connector, 3-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)

2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Resolution (smallest object)

Mouth width [mm]	Resolution [mm]
20	1

Diagrams

Order guide

Designation	Part No.
GS 04M/P-20/25-07-S8	500 33722

Remarks

- Versions with NPN switching output or other mouth width and depth on request.

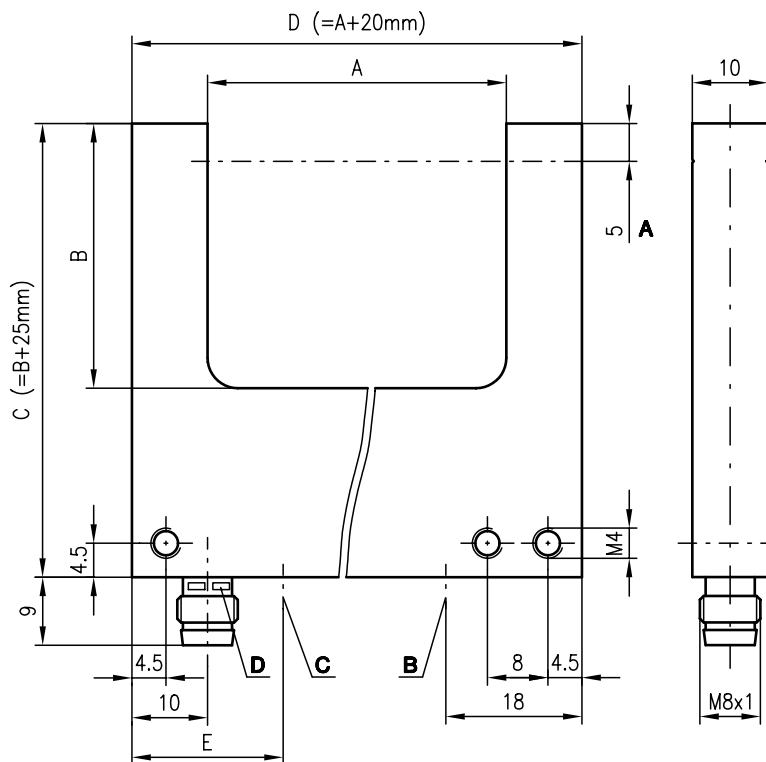


GS 04

Forked photoelectric sensors



Dimensioned drawing



- A Optical axis
- B Light/dark switching
- C Sensitivity adjustment
- D Indicator diode

	A Mouth width	B Mouth depth	C	D	E
GS 04M/P-30/35-...	30	35	60	50	18
GS 04M/P-50/55-...	50	55	80	70	20
GS 04M/P-80/55-...	80	55	80	100	20
GS 04M/P-120/55-...	120	55	80	140	20
GS 04M/P-220/55-...	220	55	80	240	20

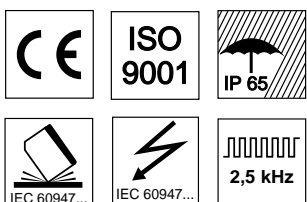
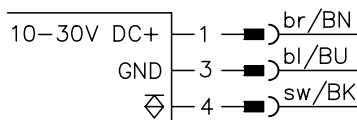


30/50/80/120/220 mm



- Sensitivity adjustment and light/dark switching for optimal adaptation to the application
- Sensitivity adjustment on the back of the fork
- Robust metal housing and glass optics for protection against environmental influences
- Transmitter and receiver are installed in the same housing, therefore easy and fast mounting (excessive mounting brackets and extensive alignment not necessary)

Electrical connection



Accessories:

(available separately • see page 762)

- M8 connectors (KD ...)

We reserve the right to make changes • GS_a07e.fm



Specifications

Optical data

Mouth width	30/50/80/120/220mm
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	2500Hz
Response time	0.2ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	PNP transistor output
Function characteristics	light/dark switching reversible
Signal voltage high/low	≥ ($U_B - 2V$) ≤ 2V
Output current	200mA
Sensitivity	adjustable

Indicators

LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

Mechanical data

Housing	aluminium, anodised
Weight	see order guide
Optics cover	glass
Connection type	M8 connector, 3-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C/-30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

- 1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)
 2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Resolution (smallest object)

Mouth width [mm]	Resolution [mm]
30	1
50	1
80	1.5
120	1.5
220	2

Diagrams

Order guide

Selection table		Order code →					
Equipment ↓		GS 04M/P-30/35-07-S8 Part No. 500 81426	GS 04M/P-50/55-07-S8 Part No. 500 81427	GS 04M/P-80/55-07-S8 Part No. 500 81428	GS 04M/P-120/55-07-S8 Part No. 500 30892	GS 04M/P-220/55-07-S8 Part No. 500 30893	
Mouth width [mm]		30	50	80	120	220	
Weight in g		40	60	80	100	160	

Remarks

- Versions with NPN switching output or other mouth width and depth on request.



GS 04

Forked photoelectric sensors

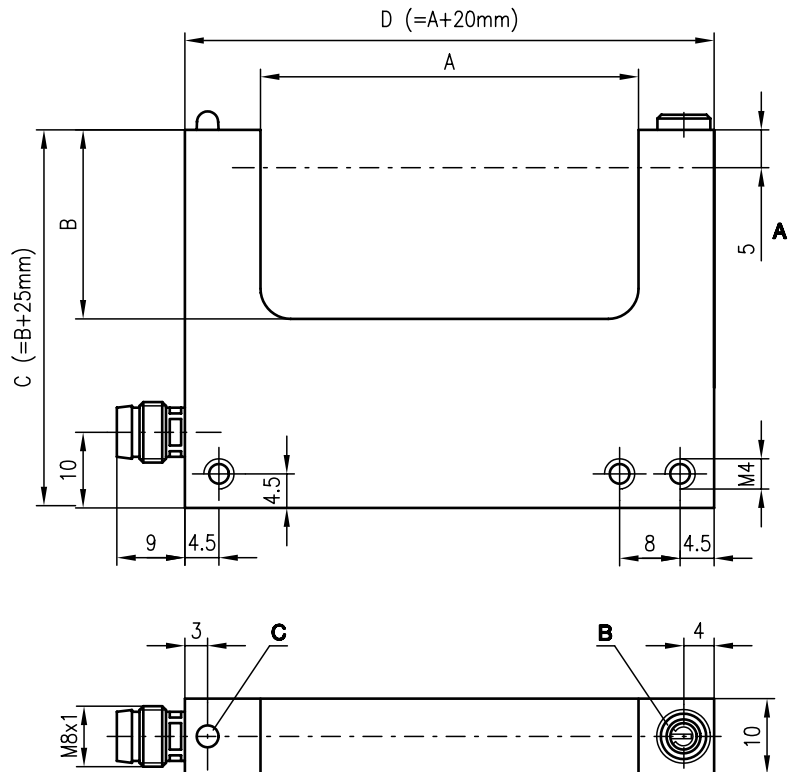


50mm

10 - 30 V
DC

- Sensitivity adjustment for optimal adaptation to the application
- Perfectly visible indicator LED for switching and operating status
- Robust metal housing and glass optics for protection against environmental influences
- Transmitter and receiver are installed in the same housing, therefore easy and fast mounting (excessive mounting brackets and extensive alignment not necessary)

Dimensioned drawing

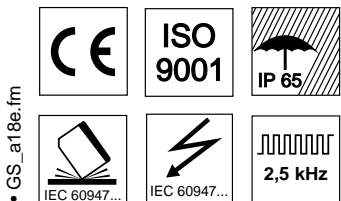
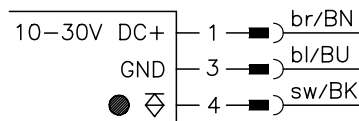


- A** Optical axis
- B** Sensitivity adjustment
- C** Indicator diode

	A Mouth width	B Mouth depth	C	D
GS 04M/P-50/25-...	50	25	50	70

Electrical connection

GS 04M/P-...10...



Accessories:

(available separately • see page 762)

- M8 connectors (KD ...)

We reserve the right to make changes • GS_at@e.fm



Specifications

Optical data

Mouth width	50mm
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	2500Hz
Response time	0.2ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	PNP transistor output
Function characteristics	dark switching
Signal voltage high/low	$\geq (U_B - 2V) \leq 2V$
Output current	200mA
Sensitivity	adjustable

Indicators

LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

Mechanical data

Housing	aluminium, anodised
Weight	60g
Optics cover	glass
Connection type	M8 connector, 3-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C/-30°C ...+70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)

2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Resolution (smallest object)

Mouth width [mm]	Resolution [mm]
50	1

Diagrams

Order guide

Designation	Part No.
GS 04M/P-50/25-10-S8	500 81215

Remarks

- Versions with NPN switching output or other mouth width and depth on request.

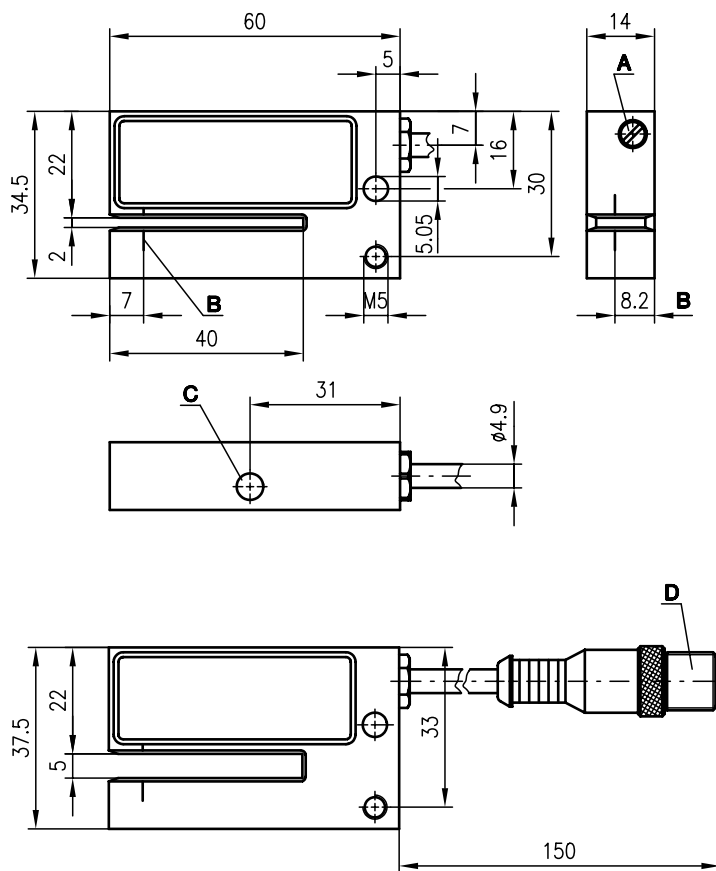


GS 05

Forked photoelectric sensors

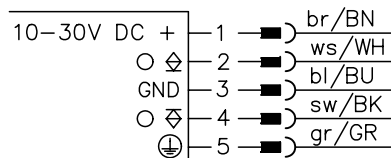


Dimensioned drawing



- A Sensitivity adjustment
- B Optical axis
- C Indicator diode
- D Connector M12x1

Electrical connection



2mm



- Fast amplifier with high switching frequency for detection of short events (e.g. gaps between labels)
- Universal application due to short circuit and polarity reversal protected PNP and NPN switching output
- Multiturn potentiometer for easy and exact sensitivity adjustment
- Robust aluminium housing with bevelled inlet edges, protection class IP 65
- Mounting holes and M12 connector for fast installation

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Accessories:



Specifications

Optical data	
Mouth width	2mm
Timing	
Switching frequency	5000Hz
Response time	0,1ms
Delay before start-up	≤ 100ms
Electrical data	
Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	1 PNP transistor output 1 NPN transistor output
Function characteristics	light switching
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	250mA
Sensitivity	adjustable with multiturn potentiometer
Indicators	
LED yellow	light path free
Mechanical data	
Housing	aluminium, anodised
Weight	125g
Connection type	cabale tail 150mm with M12 connector
Environmental data	
Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)
2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Diagrams

Order guide

Designation	Part No.
GS 05/24 G, 150 L	500 80846

Remarks



GS 05

Forked photoelectric sensors

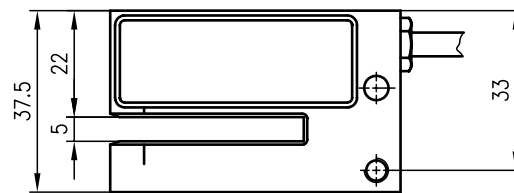
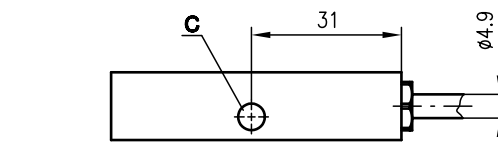
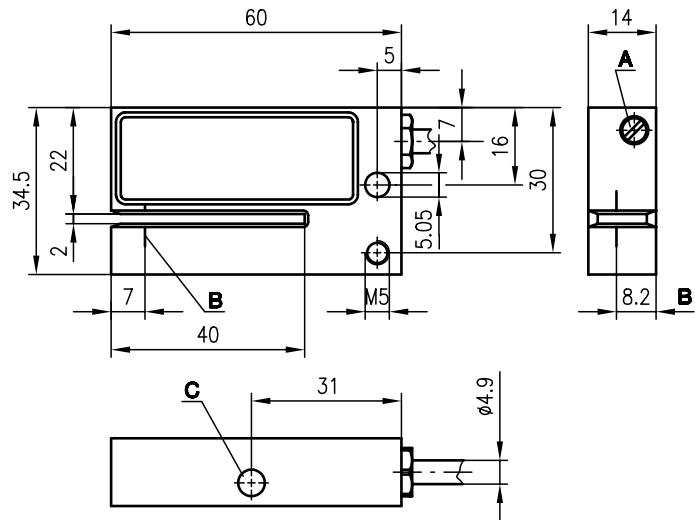


2mm
5mm

10 - 30 V
DC

- Fast amplifier with high switching frequency for detection of short events (e.g. gaps between labels)
- Universal application due to short circuit and polarity reversal protected PNP and NPN switching output
- Multiturn potentiometer for easy and exact sensitivity adjustment
- Robust aluminium housing with bevelled inlet edges, protection class IP 65
- Indicator diode displays the switching state

Dimensioned drawing

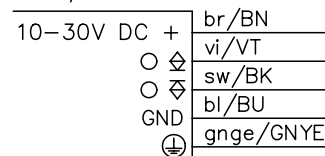


GS 05/24 G.1
GS 05/24 GD.1

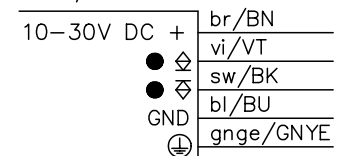
- A** Sensitivity adjustment
- B** Optical axis
- C** Indicator diode

Electrical connection

GS 05/24 G
GS 05/24 G.1



GS 05/24 GD
GS 05/24 GD.1



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Accessories:



Specifications

Optical data	
Mouth width	2mm or 5mm
Timing	
Switching frequency	5000Hz
Response time	0,1ms
Delay before start-up	≤ 100ms
Electrical data	
Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	1 PNP transistor output 1 NPN transistor output
Function characteristics	light/dark switching
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	250mA
Sensitivity	adjustable with multturn potentiometer
Indicators	
LED yellow	light path free
Mechanical data	
Housing	aluminium, anodised
Weight	120g
Connection type	cabl 2000mm (cross section 5x0.25mm ²)
Environmental data	
Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)
 2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Diagrams

Order guide

Selection table		Order code →						
Equipment ↓		GS 05/24 G Part No. 500 21435	GS 05/24 GD Part No. 500 21436	GS 05/24 G.1 Part No. 500 23112	GS 05/24 GD.1 Part No. 500 23114			
Switching	light switching	●		●				
	dark switching		●		●			
Mouth width	2mm	●	●					
	5mm			●	●			

Remarks



GS 05

Forked photoelectric sensors

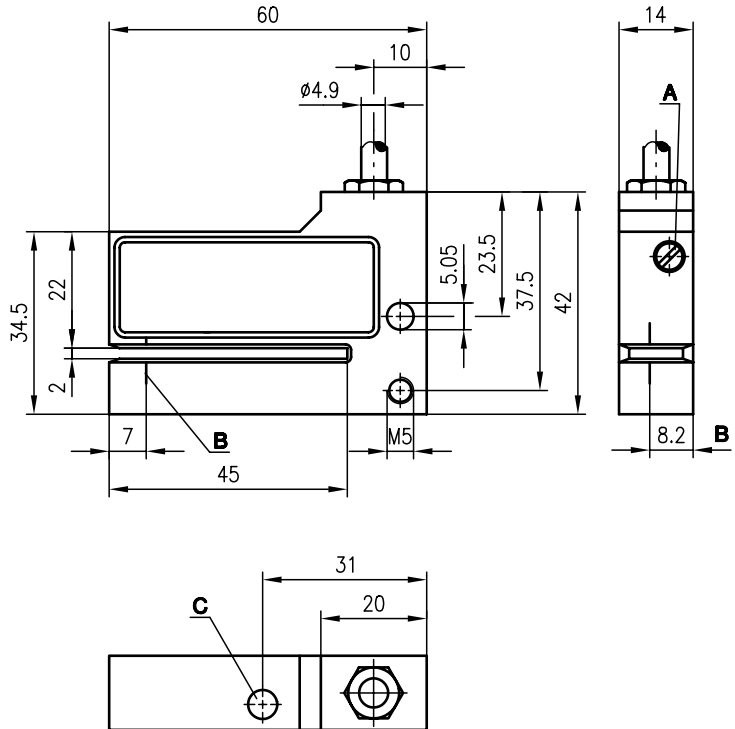


2mm



- Fast amplifier with high switching frequency for detection of short events (e.g. gaps between labels)
- Universal application due to short circuit and polarity reversal protected PNP and NPN switching output
- Multiturn potentiometer for easy and exact sensitivity adjustment
- Robust aluminium housing with bevelled inlet edges, protection class IP 65
- Indicator diode displays the switching state

Dimensioned drawing



- A Sensitivity adjustment
- B Optical axis
- C Indicator diode

Electrical connection

10-30V DC +	br/BN
● ∇	vi/VT
● ∇	sw/BK
GND	bl/BU
\oplus	gnge/GNVE

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Accessories:



Specifications

Optical data	
Mouth width	2mm
Timing	
Switching frequency	5000Hz
Response time	0,1ms
Delay before start-up	≤ 100ms
Electrical data	
Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	1 PNP transistor output 1 NPN transistor output
Function characteristics	dark switching
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	250mA
Sensitivity	adjustable with multiturn potentiometer
Indicators	
LED yellow	light path free
Mechanical data	
Housing	aluminium, anodised
Weight	125g
Connection type	cabl 2000mm (cross section 5x0.25mm ²)
Environmental data	
Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)
2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Diagrams

Order guide

Designation	Part No.
GS 05/24 GD.2	500 80003

Remarks



GS 10

Forked photoelectric sensors

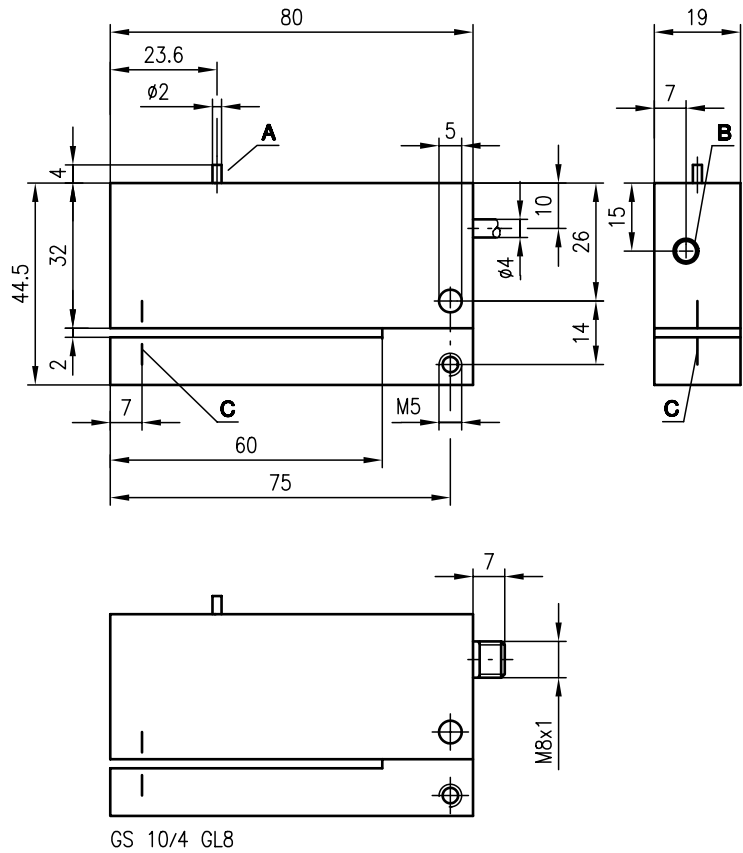


2mm



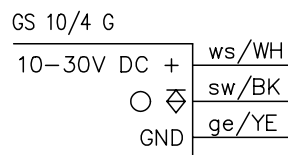
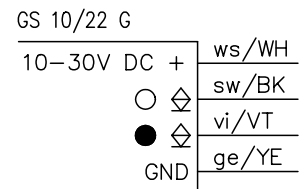
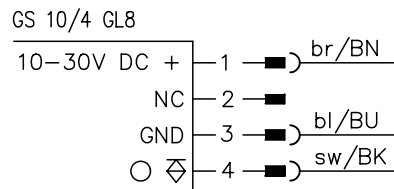
- Fast amplifier with high switching frequency for detection of short events (e.g. gaps between labels)
- Universal application due to short circuit and polarity reversal protected PNP or NPN switching output
- Robust aluminium housing with bevelled inlet edges
- Indicator diode with large viewing area displays the switching state
- Easy calibration with calibration button for optimum sensitivity adjustment

Dimensioned drawing

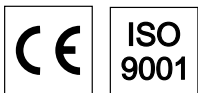


- A Calibration button
- B Indicator diode
- C Optical axis

Electrical connection



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Accessories:

(available separately • see page 762)

- Ready-made cables (KB ...)
- M8 connectors (KD ...)



Specifications

Optical data

Mouth width 2mm

Timing

Switching frequency 1000Hz
Response time 0.5ms

Electrical data

Operating voltage U_B ¹⁾ 10 ... 30VDC (incl. residual ripple)
Residual ripple $\leq 15\%$ of U_B
Bias current ≤ 50 mA
Switching output 1 PNP transistor output, light switching or
2 NPN transistor outputs, light/dark switching
Signal voltage high/low $\geq (U_B - 2V) \leq 2V$
Output current 100mA
Sensitivity adjustable by pressing the calibration button

Indicators

LED red light path free

Mechanical data

Housing aluminium, anodised
Weight 120g connector version
170g cable version
Connection type cable 2000mm (cross section 4x0.25mm²)
cable 2000mm (cross section 3x0.25mm²) or
M8 connector, 3-pin

Environmental data

Ambient temp. (operation/storage) -20°C ... +60°C/-30°C ...+70°C
Protective circuit ²⁾ 1, 2
VDE safety class III
Protection class IP 40

1) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)
2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Tables

Diagrams

Order guide

Selection table		Order code →					
Equipment ↓		GS 10/22 G Part No. 500 17880	GS 10/4 G Part No. 500 13637	GS 10/4 GL8 Part No. 500 21319			
Switching output	1 PNP		●	●			
	2 NPN	●					
Connection	M8 connector			●			
	3-wire cable		●				
	4-wire cable	●					
Switching	light switching		●	●			
	light/dark switching	●					

Remarks

- The sensitivity of the device is set by placing the material with the attached labels in the light beam and pressing the calibration button.
- Setup by untrained personnel possible when changing labels.
- The set value of the sensitivity is retained when the operating voltage is switched off.



GS 12

Forked photoelectric sensors

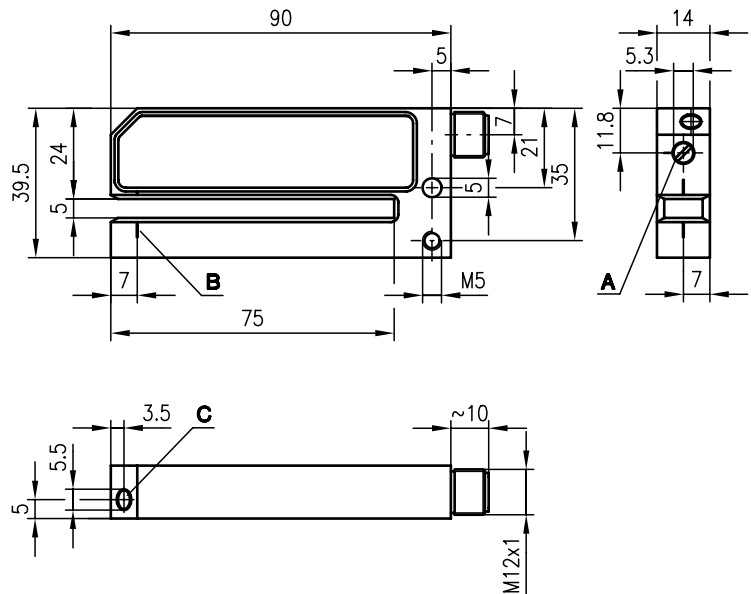


5mm



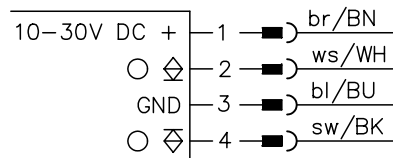
- Fast amplifier with high switching frequency for detection of short events (e.g. gaps between labels)
- Universal application due to short-circuit and polarity reversal protected PNP and NPN switching output, with M12 connector
- Robust aluminium housing with bevelled inlet edges, protection class IP 65
- Indicator diode with large viewing area displays the switching state

Dimensioned drawing



- A Sensitivity adjustment
- B Optical axis
- C Indicator diode

Electrical connection



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Accessories:

(available separately • see page 762)

- M12 connectors (KD ...)



Specifications

Optical data	
Mouth width	5mm
Timing	
Switching frequency	5000Hz
Response time	0.1ms
Delay before start-up	≤ 200ms
Electrical data	
Operating voltage U_B ¹⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 40mA
Switching output	1 PNP transistor output 1 NPN transistor output
Function characteristics	light switching
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	250mA
Sensitivity	range selection using 3-turn potentiometer
Indicators	
LED yellow	light path free
Mechanical data	
Housing	aluminium, anodised
Weight	120g
Connection type	M12 connector
Environmental data	
Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

Tables

Diagrams

Remarks

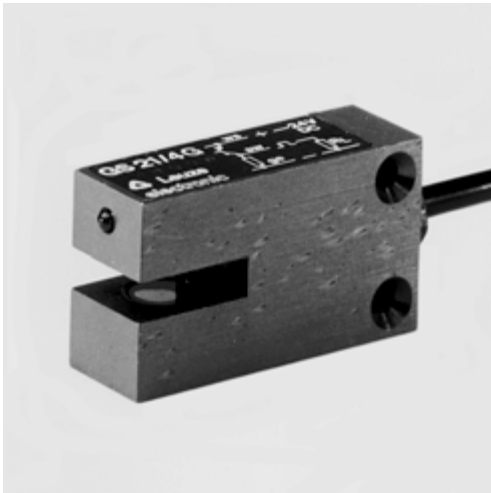
Order guide

Designation	Part No.
GS 12/24 GL	500 22724



GS 21

Forked photoelectric sensors

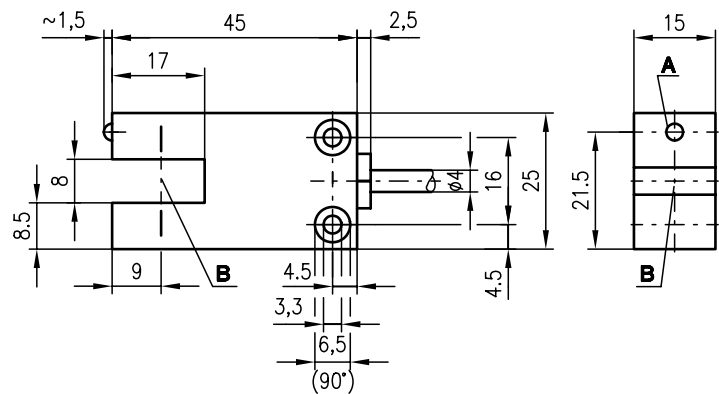


8mm



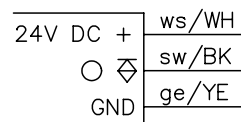
- GaAs top photoelectric sensor in constant light operation with gallium arsenide transmitter diode ensures a long lifetime
- Fast amplifier with high switching frequency for detection of short events (e.g. gaps between labels)
- Transistor output - separate switching amplifier not required
- Insensitive to interference due to low impedance output
- Indicator diode displays the switching state

Dimensioned drawing



- A Indicator diode
- B Optical axis

Electrical connection



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Accessories:



Specifications

Optical data	
Mouth width	8mm
Timing	
Switching frequency	1000Hz
Response time	0.5ms
Electrical data	
Operating voltage U_B ¹⁾	24VDC, filtered $\pm 10\%$
Residual ripple	$\leq 15\%$ of U_B
Bias current	$\leq 90mA$
Switching output	1 PNP transistor output
Function characteristics	light switching
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	100mA
Indicators	
LED red	light path free
Mechanical data	
Housing	aluminium, anodised
Weight	120g
Connection type	cable 5000mm (cross section 3x0.25mm ²)
Environmental data	
Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65

Tables

Diagrams

Remarks

Order guide

Designation	Part No.
GS 21/4 G	500 13967

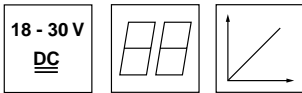


GS 754

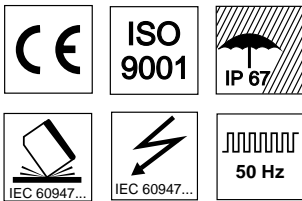
Forked photoelectric CCD sensors



29mm



- CCD line array sensor with 25mm measurement range
- Analogue, digital or serial interfaces
- Measurement range and mode adjustable
- Teach-in function
- Detection of multiple objects

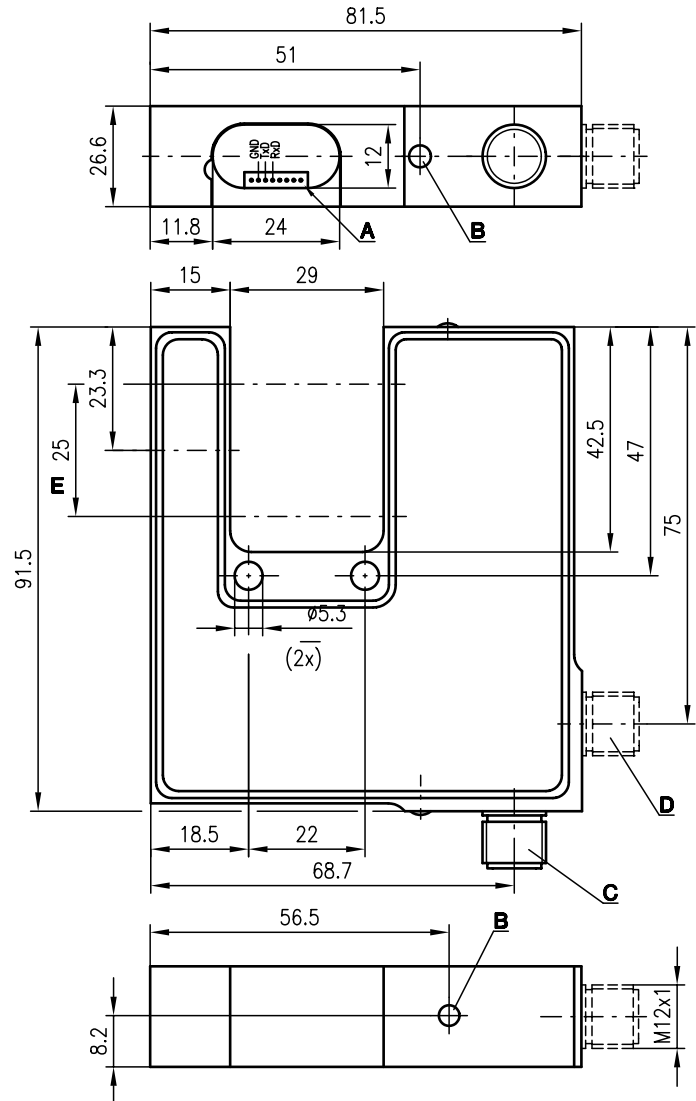


Accessories:

(available separately • see page 762)

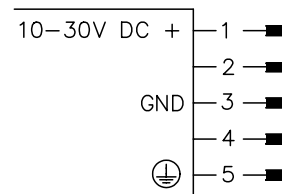
- M12 connectors (KD ...)
- Programming cable for PC (KB-ODS 96-1500, Part No. 500 82007)

Dimensioned drawing



- A Interface
- B Indicator diode
- C Lateral connector
- D Rear connector
- E Optical detection area

Electrical connection



	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5
RS 232	+	I/O	GND	TxD	Earth
RS 422	+	Tx-	GND	Tx+	Earth
Bus	+	Bus L	GND	Bus H	Earth
analogue voltage	+	I/O	GND	analogue	Earth
analogue current	+	I/O	GND	analogue	Earth

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Specifications

Optical data

Mouth width	29mm
Mouth depth	42mm
Measurement field (M)	25mm
Minimum object diameter	0.5mm
Object position	random (see remarks)
Resolution ¹⁾	a: 0.1mm (mode 1 ... 5) b: 0.014mm (mode 7)
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	max. 50Hz
Response time	min. 10ms
Output cycle	0.02 ... 3.00sec
Delay before start-up	≤ 300ms

Electrical data

Operating voltage U_B ²⁾	18 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 150mA

Output versions

Active/not active	≥ 8V/≤ 2V or not connected
Activation/disable delay	≤ 1ms
Input resistance	4.7kΩ ± 10%
Output current	max. 100mA per transistor output
Analogue output current	1 output 0 ... 20mA ($R_L \leq 500\Omega$)
Analogue output voltage	1 output 0 ... 10V ($R_L \geq 2k\Omega$)
Serial interface	RS 232/RS 422/RS 485
Teaching input	max. 1 input reversible
Warning output	max. 1 output reversible

Indicators

LED green continuous light	ready
LED green flashing	fault

Mechanical data

Housing	aluminium, anodised
Weight	260g
Optics cover	plexiglass
Connection type	M12 connector, 5-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +50°C/-30°C ... +70°C
Protective circuit ³⁾	1, 2, 3
VDE safety class	III
Protection class	IP 67
Standards applied	IEC 60947-5-2

1) System resolution, i.e. smallest practical value for the last digit of the display

2) Functional extra/low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)

3) 1=transient protection, 2=polarity reversal protection, 3=short-circuit protection for all outputs

Tables

Diagrams

Order guide

Selection table		GS 754M/D-29/42-101-S12 Part No. 500 82106	GS 754M/D-29/42-102-S12 Part No. 500 33063	GS 754M/D-29/42-201-S12 Part No. 500 31588	GS 754M/D-29/42-202-S12 Part No. 500 33067	GS 754M/V-29/42-501-S12 Part No. 500 61397	GS 754M/V-29/42-502-S12 Part No. 500 61398	GS 754M/V-29/42-601-S12 Part No. 500 60892	GS 754M/V-29/42-602-S12 Part No. 500 61399	GS 754M/V-29/42-511-S12 Part No. 500 33068	GS 754M/V-29/42-512-S12 Part No. 500 33069	GS 754M/V-29/42-611-S12 Part No. 500 33070	GS 754M/V-29/42-612-S12 Part No. 500 33071
Order code →													
Equipment ↓	Connector location	lateral	●	●	●	●	●	●	●	●	●	●	●
		at the back		●	●	●	●	●	●	●	●	●	●
Output versions	RS 232	●	●										
	RS 422/RS 485			●	●								
	analogue voltage					●	●			●	●		
	analogue current							●	●			●	●
Assignment	teaching input									●	●	●	●
	Pin #2	PNP output	●	●			●	●	●	●			

Remarks

- Functional earth must be connected.
- Sources of extraneous light must not radiate on the receiver from the front.
- Objects ≤ 1mm should be scanned in front of the receiver.

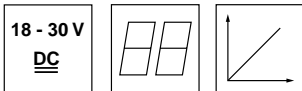


GS 754

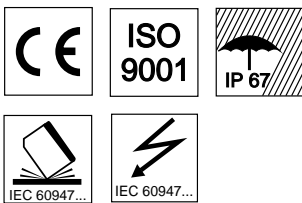
Forked photoelectric CCD sensors



100mm



- CCD line array sensor with 25mm measurement range
- Analogue, digital or serial interfaces
- Measurement range and measurement mode adjustable
- Teach-in function
- Detection of multiple objects

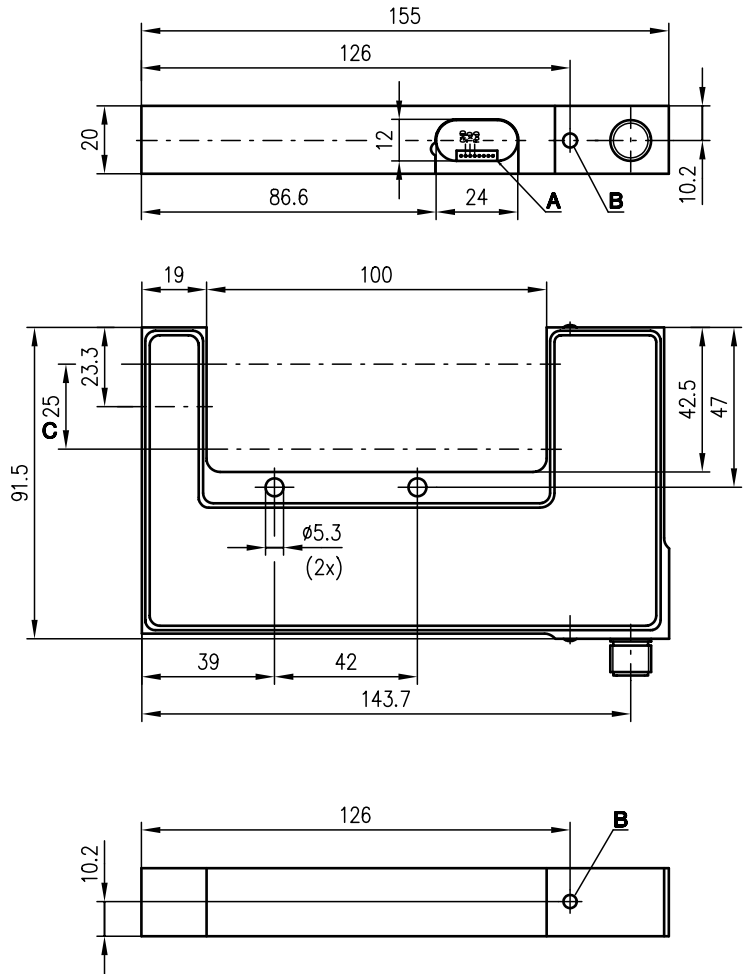


Accessories:

(available separately • see page 762)

- M12 connectors (KD ...)
- Programming cable for PC (KB-ODS 96-1500, Part No. 500 82007)

Dimensioned drawing



- A Interface
- B Indicator diode
- C Optical detection area

Electrical connection

GS 754M/D-100/42-102-S12	
18-30V DC +	1 —■ ws/WH
O1: fault	2 —■ br/BN
GND	3 —■ gn/GN
Tx +	4 —■ ge/YE
Tx -	5 —■ gr/GR
Tx D	6 —■ rs/PK
Rx D	7 —■ bl/BU
⊕	8 —■ rt/RD

GS 754M/V-100/42-502-S12	
GS 754M/V-100/42-602-S12	
18-30V DC +	1 —■ ws/WH
I1: teach in	2 —■ br/BN
GND	3 —■ gn/GN
A2: diameter	4 —■ ge/YE
A1: edge	5 —■ gr/GR
O3:	6 —■ rs/PK
O2: fault	7 —■ bl/BU
⊕	8 —■ rt/RD

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Specifications

Optical data

Mouth width	100mm
Mouth depth	42mm
Measurement field (M)	25mm
Minimum object diameter	0.5mm
Object position	random (see remarks)
Resolution ¹⁾	a: 0.1mm (mode 1 ... 5) b: 0.014mm (mode 7)
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	max. 50Hz
Response time	min. 10ms
Output cycle	0.02 ... 3.00sec
Delay before start-up	≤ 300ms

Electrical data

Operating voltage U_B ²⁾	18 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 150mA

Output versions

active/not active	≥ 8V/≤ 2V or not connected
Activation/disable delay	≤ 1ms
Input resistance	4.7kΩ ± 10%
Output current	max. 100mA per transistor output
Analogue output current	2 output 0 ... 20mA ($R_L \leq 500\Omega$)
Analogue output voltage	2 outputs 0 ... 10V ($R_L \leq 2k\Omega$)
Serial interface	RS 232/RS 422/RS 485
Inputs	max. 3 inputs
Outputs	max. 3 outputs

Indicators

LED green continuous light	ready
LED green flashing	fault

Mechanical data

Housing	aluminium, anodised
Weight	260g
Optics cover	plexiglass
Connection type	M12 connector, 8-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +50°C/-30°C ... +70°C
Protective circuit ³⁾	1, 2, 3
VDE safety class	III
Protection class	IP 67
Standards applied	IEC 60947-5-2

1) System resolution, i.e. smallest practical value for the last digit of the display

2) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)

3) 1=transient protection, 2=polarity reversal protection, 3=short-circuit protection for all outputs

Tables

Diagrams

Order guide

Selection table		GS 754M/D-100/42-102-S12 Part No. 500 35947	GS 754M/V-100/42-502-S12 Part No. 500 35474	GS 754M/V-100/42-602-S12 Part No. 500 35948				
Order code →								
Equipment ↓								
Connector location	at the back	●	●	●				
Output versions	RS 232	●						
	RS 422/RS 485	●						
	1xAnalogue voltage							
	2xAnalogue voltage		●					
Assignment Pin #2	2xanalogue current			●				
	1xInput		●	●				
	1xOutput	●						
	2xOutput		●	●				
	3xOutput							

GS 754 M/D-100/42-102-S12 - 02

GS 754 M/V-100/42-502(...602)-S12 - 02

Remarks

- Functional earth must be connected.
- Sources of extraneous light must not radiate on the receiver from the front.
- Objects ≤ 1mm should be scanned in front of the receiver.



GSU 14/24

Ultrasonic Label Fork

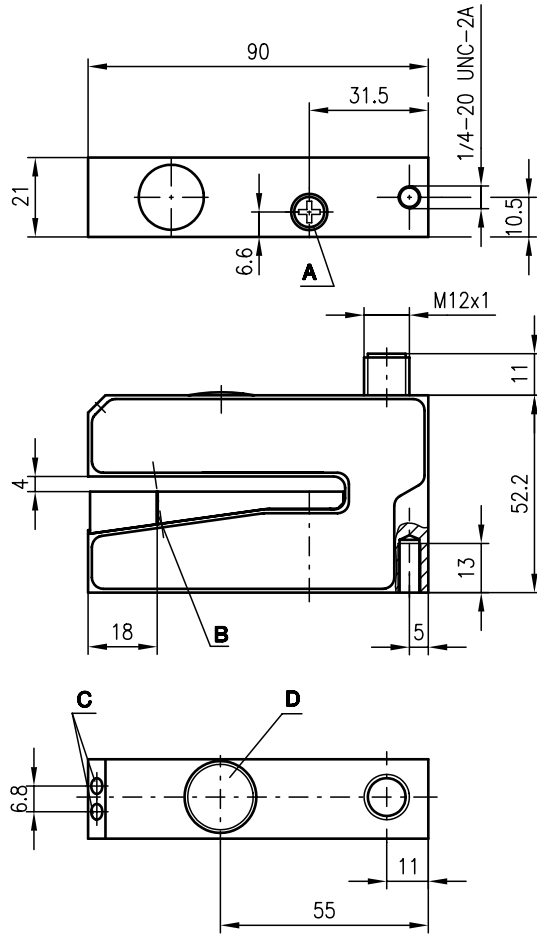


4mm



- Forked sensor for reliable detection of:
 - foil labels on foil carrier
 - foil labels on paper carrier
 - paper labels on paper carrier
 - metallised foil labels
 - thin metal foils
- Simple adjustment via teach-in by pressing a button or remote calibration
- Static PNP and NPN transistor outputs for optimum adaptation to the controller
- Robust metal housing with bevelled inlet edges and M12 connector

Dimensioned drawing



- A The support table can be removed and cleaned after loosening the screw
- B Sensor marker
- C Indicator diode
- D Teach-in button

Electrical connection

GSU 14/24 L	
10-30V DC +	1 —■—) br/BN
○ ⊕	2 —■—) ws/WH
GND	3 —■—) bl/BU
○ ⊖	4 —■—) sw/BK
Teach in	5 —■—) gr/GR

GSU 14/24 DL	
10-30V DC +	1 —■—) br/BN
● ⊕	2 —■—) ws/WH
GND	3 —■—) bl/BU
● ⊖	4 —■—) sw/BK
Teach in	5 —■—) gr/GR

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Accessories:

(available separately • see page 762)

- M12 connectors (KD ...)



Specifications

Physical data

Mouth width	4mm
Mouth depth	67mm
Label length	≥ 2mm
Label spacing	≥ 2mm
Band speed	≤ 2m/s (120m/min)
Repeatability ¹⁾	± 0.2mm
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U _B	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U _B
Bias current	≤ 60mA
Switching outputs	PNP and NPN transistor output
Function characteristics	light or dark switching
Signal voltage high/low	≥ (U _B -2V) ≤ 2V
Output current	200mA

Indicators

LED green	ready
LED green flashing	teach-in activated
LED yellow	switching point in the label gap

Mechanical data

Housing	aluminium, anodised
Colour	red/black
Weight	300g
Connection type	M12 connector, 5-pin

Environmental data

Ambient temp. (operation/storage)	0°C ... +60°C/-40°C ... +70°C
Protective circuit ²⁾	1, 2
VDE safety class	III
Protection class	IP 65
Standards applied	IEC 60947-5-2

Options

Teach-in input	
active/not active	≥ 8V/≤ 2V
Activation/disable delay	≤ 0.2ms
Input resistance	10kΩ

1) material dependent

2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Order guide

	Designation	Part No.
light switching (signal in the label gap)	GSU 14/24 L	500 61406
dark switching (signal on the label)	GSU 14/24 DL	500 37974

Remarks

Function

Manual teach-in

1. Insert label band at the correct position (band's center at sensor's marker).
2. The button on the device is pressed to teach - green LED flashes.
3. Label band advances so that 2 - 3 label gaps pass through the measuring zone.
4. The button is then pressed again. The green LED illuminates continuously. The teaching process is concluded.

Function

Remote teach-in

1. Insert label band at the correct position (band's center at sensor's marker).
2. Apply voltage at "Teach in" control input. Teach-in is activated.
3. Advance 2 - 3 label gaps through the sensor.
4. Disconnect voltage.

Measurement values are stored. Teach-in ends after 100ms.

- To achieve high repeatability, the label band must be slightly under tension.
- The label band's center should be positioned above the sensor's marker (see also there).

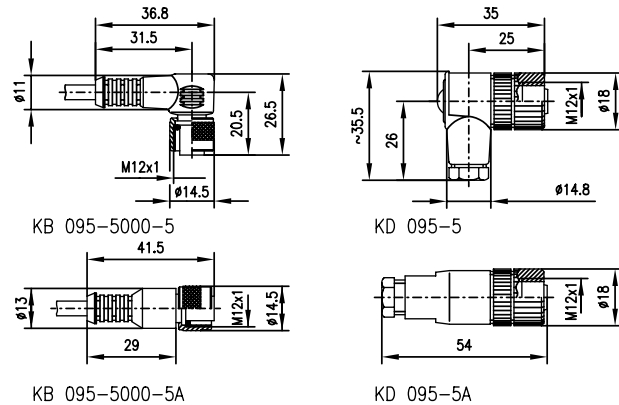
M12 connectors





For devices with M12 connectors, there are available: connectors with ready-made cable and connectors with screw connection.

Protection class (DIN 40050) plugged and screwed: IP 67

Dimensioned drawings



Selection table

M12 connectors			
 with 3-pin cable (5m)		 without cable 5-pin	
KB 418-5000-3 Part No. 500 23545	KB 418-5000-3A Part No. 500 23544	KD 095-5 Part No. 500 20502	KD 095-5A Part No. 500 20501
with 5-pin cable (5m)			
KB 095-5000-5 Part No. 500 20500	KB 095-5000-5A Part No. 500 20499		
with 8-pin cable (2m)			
		KB 448-2000-5A Part No. 500 32411	
with 8-pin cable (5m)			
		KB 448-5000-8A Part No. 500 33061	

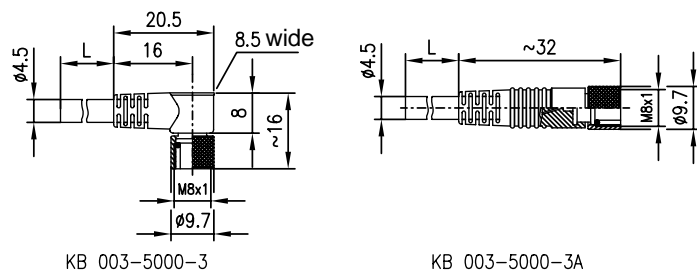
M8 connectors




For devices with M8 connectors, 2 connectors with ready-made 5m cable are available.

Protection class (DIN 40050) plugged and screwed: IP 67

Dimensioned drawings



Selection table

M8 connectors	
 with 3-pin cable (5m)	
KB 003-5000-3 Part No. 500 81179	KB 003-5000-3A Part No. 500 81180

Additional information in section "Accessories" from page 925 onwards!

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