

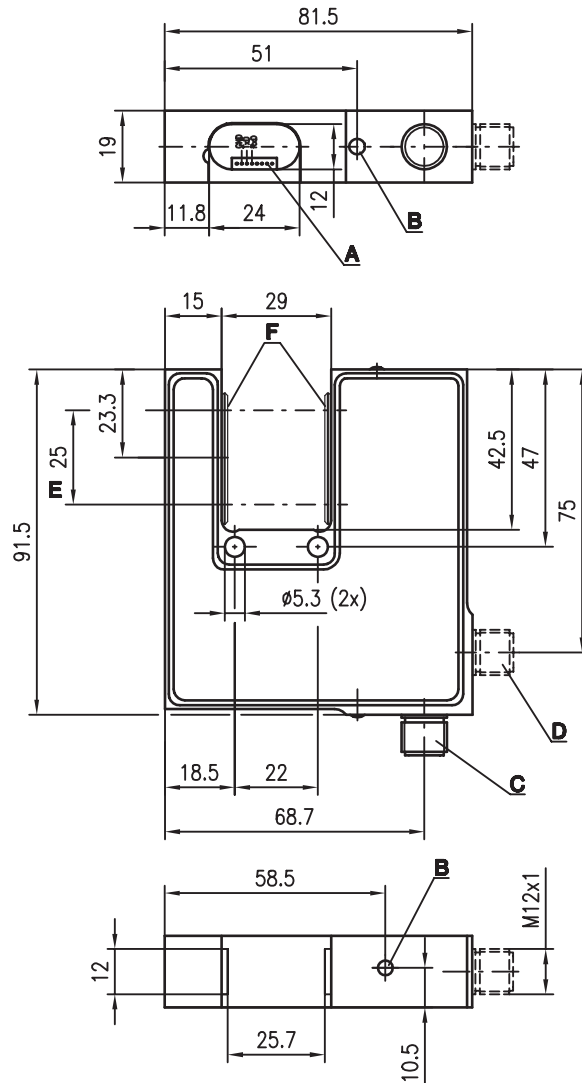


GS 754

Forked photoelectric CCD sensors

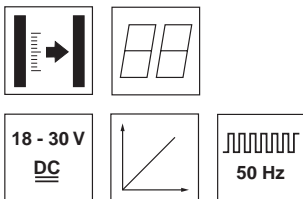


Dimensioned drawing



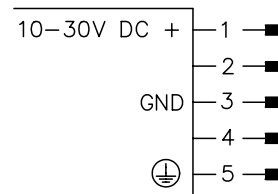
- A Interface
- B Indicator diode
- C Rear connector
- D Lateral connector
- E Optical detection area
- F Protective glass

29mm

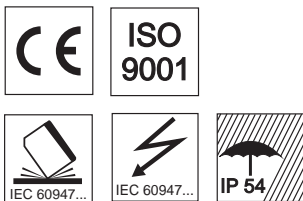


- CCD line array sensor with 25mm measurement range
- Analogue, digital or serial interfaces
- Measurement range and mode adjustable
- Teach-in function
- Detection of multiple objects
- Soiling detection

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



Accessories:

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

We reserve the right to make changes*gs_a02e.fm



Specifications

Optical data

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

Timing

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

Electrical data

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

Output versions

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

Indicators

LED green continuous light	ready
LED green flashing	fault

Mechanical data

Housing	aluminium, anodised
Weight	260 g
Optics cover	glass (see remarks)
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 54
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

Order guide

Selection table		Order code →								
Equipment ↓		GS 754MD-29/42-104-S12 Part No. 501 04280	GS 754MD-29/42-204-S12 Part No. 501 04281	GS 754MV-29/42-504-S12 Part No. 501 03206	GS 754MV-29/42-604-S12 Part No. 501 02981					
Connector location	at the back	●	●	●	●					
Output versions	RS 232	●								
	RS 422/RS 485		●							
	analogue voltage			●						
	analogue current				●					
Assignment Pin #2	teaching input									
	PNP output	●		●	●					
Protective glass	pre-installed	●	●	●	●					

Tables

Diagrams

Remarks

- Functional earth must be connected.
- Sources of extraneous light must not radiate on the receiver from the front.
- Objects ≤ 1 mm should be scanned in front of the receiver.
- Only use fibre-free cloth for cleaning the optics covers. Hard and pointed objects destroy the optics.

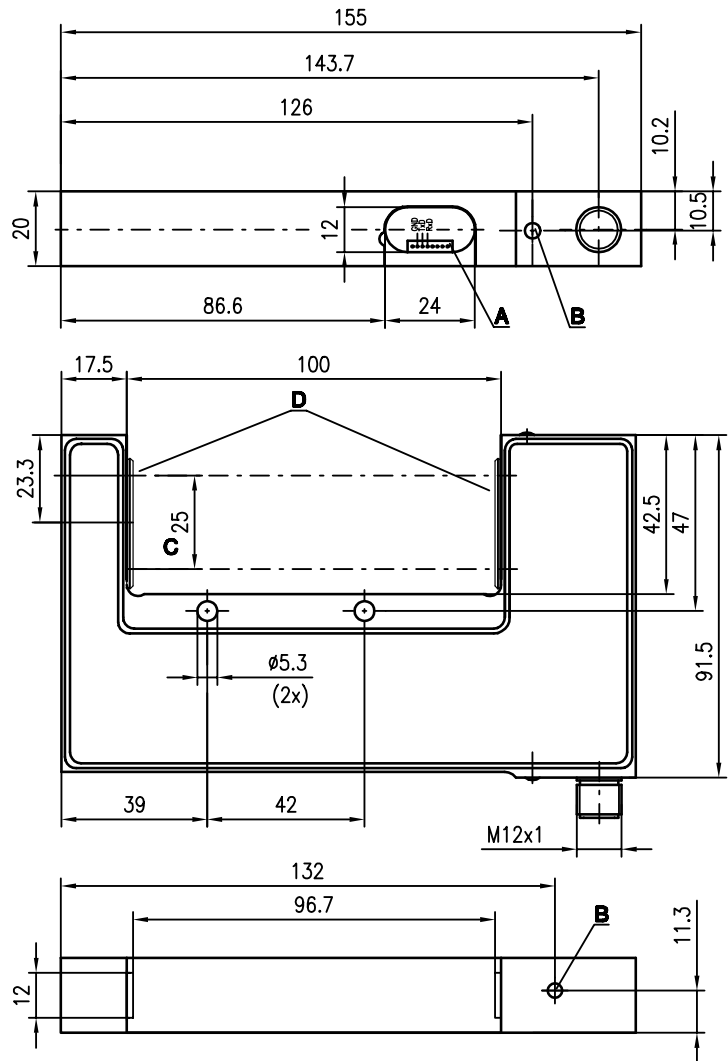


GS 754

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Dimensioned drawing



- A Interface
- B Indicator diode
- C Optical detection area
- D Protective glass

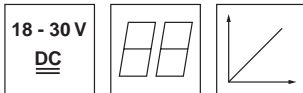
Electrical connection

GS 754M/D-100/42-104-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-100/42-504-S12		
GS 754M/V-100/42-604-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



100mm



- CCD line array sensor with 25mm measurement range
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- Detection of multiple objects



Accessories:

(available separately)

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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 ... 3.00s
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 outputs 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	glass
Connection type	M12 connector, 8-pin

Environmental data

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Selection table		GS 754MD-100/42-104-S12 Part No. 501 04283	GS 754MV-100/42-504-S12 Part No. 501 03488	GS 754MV-100/42-604-S12 Part No. 501 03487				
	Order code →							
Equipment ↓								
Connector location	at the back	●	●	●				
Output versions	RS 232	●						
	RS 422/RS 485	●						
	1x analogue voltage							
	2x analogue voltage		●					
	2x analogue current			●				
	1x input		●	●				
	1x output		●					
	2x output		●	●				
Protective glass	pre-installed	●	●	●				

Remarks

- Functional earth must be connected.
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