

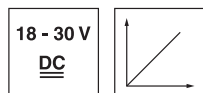
GS 754B

CCD Forked Photoelectric Sensors

en 05-2014/02 50116503-01



27 mm



- CCD line sensor with 25mm measurement range
- Analog, digital or serial interface
- Configurable measurement range and measure mode
- Teach-in function
- Multiple object detection
- Configurable switching output
- Detection of transparent media
- Metal turning connector

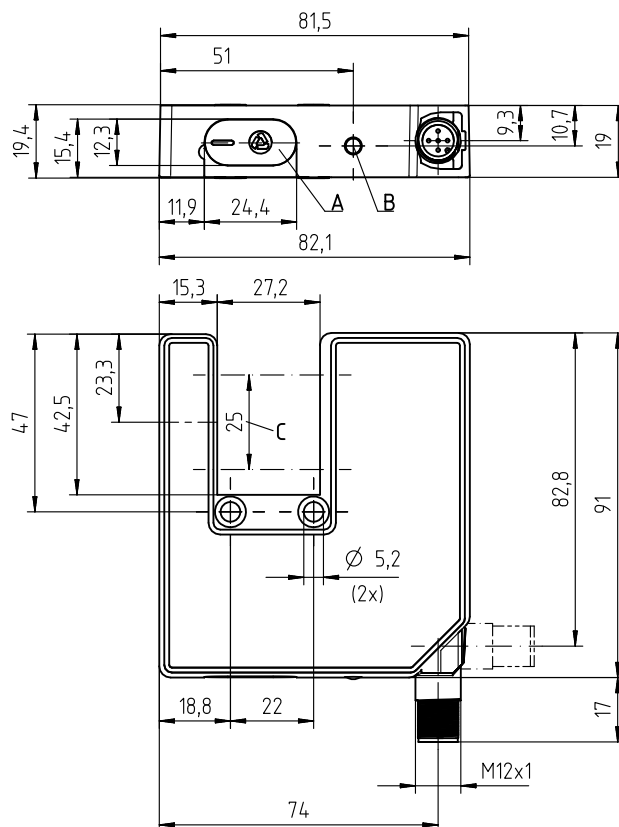


Accessories:

(available separately)

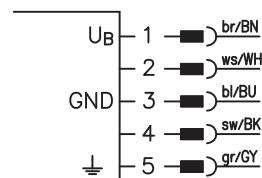
- M12 connectors, (KD ...)
- Cables with M12 connector (K-D...)
- Configuration cable for PC (KB-ODS 96-1500, part no. 50082007)

Dimensioned drawing



- A Interface
B Indicator diode
C Optical detection area

Electrical connection



Device variants	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5
RS 232	10...30VDC	I/O	GND	TxD	FE - functional earth
RS 422	10...30VDC	Tx-	GND	Tx+	FE - functional earth
Analog voltage	18...30VDC	I/O	GND	analog	FE - functional earth
analog current	18...30VDC	I/O	GND	analog	FE - functional earth

Specifications

Optical data

Mouth width	27 mm
Mouth depth	42 mm
Measurement range	25 mm
Resolution ¹⁾	a: 0.1 mm (modes 1 ... 5) b: 0.014 mm (mode 7)
Reproducibility	± 0.03 mm
Linearity	± 0.36 mm
Minimal object diameter	0.5 mm
Object position	any (see remarks)
Light source	LED (modulated light)
Wavelength	850 nm

Timing

Response time	min. 12 ms
Output cycle	0.012 ... 3.00 s
Delay before start-up	≤ 300 ms

Electrical data

Operating voltage U_B ²⁾	with RS 232/RS 422: 10 ... 30 VDC (incl. residual ripple) with analog output: 18 ... 30 VDC (incl. residual ripple)
Residual ripple	≤ 15 % of U_B
Open-circuit current	≤ 60 mA

Output variants

Active/Not active	≥ 8 V/≤ 2 V or not connected
Activation/disable delay	≤ 1 ms
Input resistance	approx. 6 kΩ
Switching output current	pin 2: max. 100 mA
Analog output current	(0)4 ... 20 mA (depending on output mode), $R_L \leq 500 \Omega$
Analog output voltage	(0)2 ... 10 V (depending on output mode), $R_L \geq 2 k\Omega$
Serial interface	RS 232/RS 422
Teach input	pin 2 reversible
Switching output	pin 2 reversible

Indicators

Green LED continuous light	ready
Green LED flashing	interference

Mechanical data

Housing	diecast zinc
Weight	270 g
Optics cover	plastic (see remarks)
Connection type	M 12 connector, metal, 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
Light source	free group (in acc. with EN 62471)
Standards applied	IEC 60947-5-2
Certifications	UL 508, C22.2 No.14-13 ²⁾ 4)

- 1) System resolution, i.e. smallest practical value for the last position of the display
2) Protective extra-low voltage (VDE 0100/T 410),
For UL applications: for use in class 2 circuits according to NEC only
3) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs
4) These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.2A min,
in the field installation, or equivalent (categories: CYJV/CYJV7 or PVVA/PVVA7)

Order guide

Selection table		GS 754B/D24-27-S12 Part no. 50115807	GS 754B/D3-27-S12 Part no. 50115806	GS 754B/V4-27-S12 Part no. 50115809	GS 754B/C4-27-S12 Part no. 50115803
Order code →					
Equipment ↓					
Output variants	RS 232	●			
	RS 422		●		
	analog voltage			●	
	analog current				●
Pin 2, configurable	I/O	●		●	●

Tables

Diagrams

Remarks

- **Approved purpose:**
This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.
- Functional earth must be wired.
- Extraneous light sources must not beam into the receiver from the front.
- Objects ≤ 1 mm should be scanned in front of the receiver.
- Only fiber-free cloths may be used to clean optics covers. Tips and hard objects damage the optics.