



### PRODUCT HIGHLIGHTS

- Robust metal housings
- Small part detection from 0.4 mm
- High switching frequency of 1500 Hz
- Precise sensitivity adjustment via potentiometer
- N.O./N.C. switchable

Optical data		Functions	
Fork width	50 ... 220 mm (see Selection Table)	Indicator LED, yellow	Switching output indicator
Type of light	LED, red, 640 nm	Sensitivity adjustment	Via potentiometer
Smallest detectable part	(See table)	Adjustment possibilities	N.O. / N.C. via potentiometer
Repeatability	0.04 mm <sup>1</sup> / 0.06 mm <sup>2</sup> / 0.08 mm <sup>3</sup>		
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	10 ... 30V DC <sup>4</sup>	Dimensions	(See plug connection)
No-load current, I <sub>0</sub>	≤ 35 mA	Enclosure rating	IP 67 <sup>5</sup>
Output current, I <sub>e</sub>	≤ 200 mA	Material, housing	Die-cast zinc (GD Zn)
Voltage drop, U <sub>D</sub>	< 3V	Material, active areas	Glass
Protective circuits	Reverse polarity protection, U <sub>B</sub> / Short-circuit protection (Q)	Type of connection	See Selection Table
Protection Class	2	Ambient temperature: operation	-10 ... +60 °C
Switching output, Q	PNP	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O. / N.C.	Weight	See Selection Table
Switching frequency, f (ti/tp 1:1)	1500 Hz	Vibration and impact resistance	EN 60947-5-2

<sup>1</sup> FGL 50   <sup>2</sup> FGL 80   <sup>3</sup> FGL 120 / FGL 180 / FGL 220   <sup>4</sup> Max. 10 % ripple, within U<sub>B</sub>   <sup>5</sup> With connected IP 67 plug

Fork width	Type of connection	Weight	Part number	Article number
50 mm	Metal plug, M8x1, 3-pin	110 g	FGL 50-R-PSM3	830-11004
80 mm	Metal plug, M8x1, 3-pin	135 g	FGL 80-R-PSM3	830-11005
120 mm	Metal plug, M8x1, 3-pin	210 g	FGL 120-R-PSM3	830-11006
180 mm	Metal plug, M8x1, 3-pin	315 g	FGL 180-R-PSM3	830-11007
220 mm	Metal plug, M8x1, 3-pin	365 g	FGL 220-R-PSM3	830-11008

Plug connection (50 mm fork width)	Plug connection (80 mm fork width)	Plug connection (120 mm fork width)
<p>153-00266</p>	<p>153-00267</p>	<p>153-00268</p>
Plug connection (180 mm fork width)	Plug connection (220 mm fork width)	
<p>153-00299</p>	<p>153-00300</p>	

Operating / display elements	Connection, 3-pin
<p>155-00237</p>	<p>154-00456</p>

Smallest detectable part					
Type	FGL 50	FGL 80	FGL 120	FGL 180	FGL 220
Part size	0.4 mm	0.4 mm	0.8 mm	0.8 mm	0.8 mm

Accessories	
Connection cables	From Page A-38