

FGL... -RK

Fork sensors



PRODUCT HIGHLIGHTS

- Fork widths: 30 ... 120 mm
- Small part detection from 0.2 mm
- Sensor adjustment via teach-in and control input
- Versatile mounting possibilities
- N.O./N.C. switchable

Optical data		Functions	
Fork width	30 ... 120 mm (see Selection Table)	Indicator LED, green	Operating voltage indicator
Type of light	LED, red, 640 nm	Indicator LED, yellow	Switching output indicator
Smallest detectable part	(See table)	Sensitivity adjustment	Via Teach-in button and control input
		Teach-in modes	Mode 1: during running process Mode 2: process at standstill
		Adjustment possibilities	N.O./N.C. via Teach-in button and control input Button lock via control input Default: via Teach-in button and control input
		Default setting	Maximum stability (max. immunity to contamination)
Electrical data		Mechanical data	
Operating voltage, +U _B	10 ... 30V DC ¹	Dimensions	(See plug connection)
No-load current, I ₀	≤ 30 mA	Enclosure rating	IP 67 ³
Output current, I _e	≤ 100 mA	Material, housing	Polycarbonate
Voltage drop, U _D	≤ 2.4V	Type of connection	See Selection Table
Protective circuits	Reverse polarity protection, U _B / Short-circuit protection (Q)	Ambient temperature: operation	-20 ... +60 °C
Protection Class	2	Ambient temperature: storage	-20 ... +80 °C
Switching output, Q	PNP / NPN (see Selection Table)	Weight	See Selection Table
Output function	N.O. / N.C.	Vibration and impact resistance	EN 60947-5-2
Switching frequency, f (ti/tp 1:1)	≤ 2000 Hz		
Response time	250 μs		
Control input, ET ²	+U _B = Teach-in, -U _B = button locked Open = normal operation		

¹ Max. 10 % ripple, within U_B ² Only 4-pin design ³ With connected IP 67 plug

Fork width	Switching output	Type of connection	Weight	Part number	Article number
30 mm	PNP	Plug, M8x1, 3-pin	20 g	FGL 30-RK-30-PS-M3	832-11000
30 mm	NPN	Plug, M8x1, 3-pin	20 g	FGL 30-RK-30-NS-M3	832-11001
30 mm	PNP	Plug, M8x1, 4-pin	20 g	FGL 30-RK-30-PS-M4	832-11002
30 mm	NPN	Plug, M8x1, 4-pin	20 g	FGL 30-RK-30-NS-M4	832-11003
50 mm	PNP	Plug, M8x1, 3-pin	30 g	FGL 50-RK-50-PS-M3	832-11004
50 mm	NPN	Plug, M8x1, 3-pin	30 g	FGL 50-RK-50-NS-M3	832-11005
50 mm	PNP	Plug, M8x1, 4-pin	30 g	FGL 50-RK-50-PS-M4	832-11006
50 mm	NPN	Plug, M8x1, 4-pin	30 g	FGL 50-RK-50-NS-M4	832-11007

Fork width	Switching output	Type of connection	Weight	Part number	Article number
80 mm	PNP	Plug, M8x1, 3-pin	35 g	FGL 80-RK-50-PS-M3	832-11008
80 mm	NPN	Plug, M8x1, 3-pin	35 g	FGL 80-RK-50-NS-M3	832-11009
80 mm	PNP	Plug, M8x1, 4-pin	35 g	FGL 80-RK-50-PS-M4	832-11010
80 mm	NPN	Plug, M8x1, 4-pin	35 g	FGL 80-RK-50-NS-M4	832-11011
120 mm	PNP	Plug, M8x1, 3-pin	40 g	FGL 120-RK-50-PS-M3	832-11012
120 mm	NPN	Plug, M8x1, 3-pin	40 g	FGL 120-RK-50-NS-M3	832-11013
120 mm	PNP	Plug, M8x1, 4-pin	40 g	FGL 120-RK-50-PS-M4	832-11014
120 mm	NPN	Plug, M8x1, 4-pin	40 g	FGL 120-RK-50-NS-M4	832-11015

Plug connection

Typ / Type	A	B	C	D	E	F	G	H	I	②
FGL 30-RK-30-xx-xx	30	50	30	34	59,5	20	-	62,2	71,7	1x
FGL 50-RK-50-xx-xx	50	70	50	54	79,5	20	28	82,2	91,7	2x
FGL 80-RK-50-xx-xx	80	100	80	54	79,5	20	2x28	112,2	91,7	3x
FGL 120-RK-50-xx-xx	120	140	120	54	79,5	20	3x28	152,2	91,7	4x

Angaben in mm / Specifications are in mm / Données en mm

① Schwalbenschwanz / Dovetail / Pince à queue d'aronde
 Gewindeeinsatz M4, Einschraubtiefe max. 6 mm
 Threaded insert M4, max. screw-in depth 6 mm
 Insert filetage M4, profondeur vis max 6 mm

153-00543

Connection, 4-pin

4:

154-00148

Connection, 3-pin

4:

154-00163

Smallest detectable part

Type	FGL 30	FGL 50	FGL 80	FGL 120
Part size	0.2 mm	0.2 mm	0.2 mm	0.4 mm

Accessories

Connection cables	From Page A-32
Brackets	From Page A-4