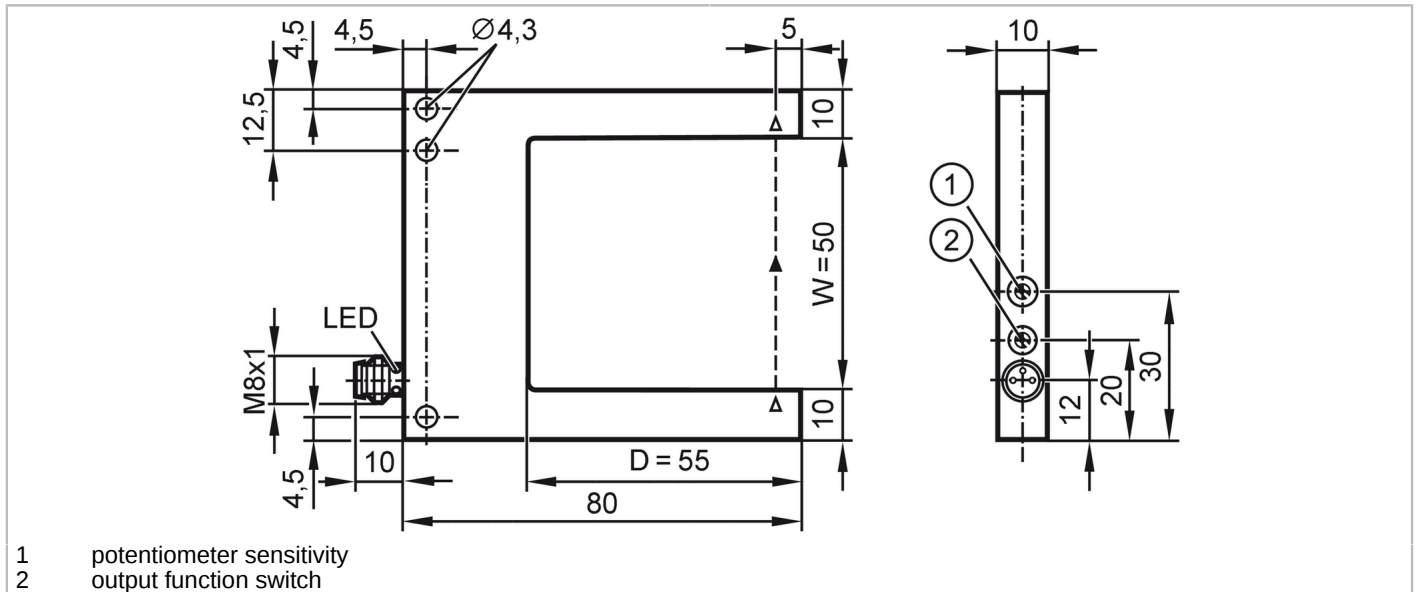


OPU701



Photoelectric fork sensor

OPULFPKG/IO-Link/AS



Product characteristics	
Type of light	red light
Laser protection class	1
Application	
Function principle	Through-beam sensor
Electrical data	
Operating voltage [V]	10...30 DC; (cULus - Class 2 source required)
Insulation rating [V]	500
Current consumption [mA]	< 30
Protection class	III
Reverse polarity protection	yes
Max. power-on delay time [ms]	150
Type of light	red light
Wave length [nm]	655
Outputs	
Electrical design	PNP/NPN; (configurable)
Output function	light-on/dark-on mode; (selectable)
Max. voltage drop switching output DC [V]	1
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	5000
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes



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Monitoring range		
Diameter of the smallest detectable object	[mm]	0.05
Accuracy / deviations		
Repeatability	[mm]	0.01
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Multiple switching signal
	Function	Process data variable
	Function	Device diagnosis
	Function	Teach channel
SIO mode	yes	
Required master port class	A	
Min. process cycle time	[ms]	3.2
IO-Link process data (cyclical)	Function	bit length
	process value	16
	device status	4
	binary switching information	1
IO-Link functions (acyclical)	application specific tag; operating hours counter; switching cycles counter; Min./Max. Signalspeicher; Operating mode	
Supported DeviceIDs	Type of operation	DeviceID
	default	1209
Note	For further information please see the IODD PDF file at "Downloads"	
Operating conditions		
Ambient temperature	[°C]	-25...60
Protection	IP 67	
Tests / approvals		
EMC	DIN EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	DIN EN 61000-4-3 HF radiated	10 V/m
	DIN EN 61000-4-4 Burst	2 kV
	DIN EN 61000-4-6 HF conducted	10 V
	DIN EN 55011	class A
Vibration resistance	EN 60068-2-6 Fc	(10-55) Hz 1 mm amplitude, vibration duration 5 min., 30 min. per axis with resonance or 55 Hz
Shock resistance	EN 60068-2-27 Ea	30 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
Laser protection class	1	

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Notes on laser protection	Caution:	Laser light
	laser class:	1
		EN / IEC60825-1:2007
		EN / IEC60825-1:2014
		Complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.
MTTF	[years]	548

Mechanical data		
Weight	[g]	131
Dimensions	[mm]	70 x 10 x 80
Fork depth D	[mm]	55
Fork width W	[mm]	50
Material		housing: diecast zinc powder-coated; lens: glass

Displays / operating elements		
Display	Switching status	1 x LED, yellow

Remarks	
Pack quantity	1 pcs.

Electrical connection
 Connector: 1 x M8; coding: A



Connection



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Other data

operating mode adjustable via IO-Link

	standard	High Resolution	Power	Speed
Resolution	0.05 mm	0.03 mm	0.1 mm	0.05 mm
Repeatability	0.01 mm	0.01 mm	0.015 mm	0.015 mm
Switching frequency	5000 Hz	2000 Hz	1000 Hz	10000 Hz
Repeatability	3 σ			