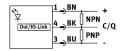
## Fork light barrier SOOF-M-FL-SM-C30-P

**FESTO** 

Part number: 553553





## **Data sheet**

CUL us - Listed (OL)  CE marking (see declaration of conformity)  As per EU RMC directive As per EU RMS directive  To UK instructions for EMC To UK RoHS instructions  Note on materials  Measured variable Position  Measuring principle Optoelectronic  Method of measurement Type of light Red Minimum object diameter O.3 mm Note on min. object diameter O.3 mm with standard mode 0.2 mm with high resolution mode 1.0 mm with power mode O.3 mm with speed mode  Ambient temperature 2.5°C60°C  Repetition accuracy O.2 mm  Switching output  Push-pull NPN PNP  Switching element function Max. switching frequency Sould be a with standard mode 1.0 mm Max. switching frequency Sould be with standard mode 1.0 mm Max. switching frequency Sould be with standard mode 1.0 mm Max. switching frequency Sould be with standard mode 1.0 mm Max. switching frequency Sould be with standard mode 1.0 mm Max. switching frequency Sould be with standard mode 1.0 mm Max. switching frequency Sould be with standard mode 1.0 mm Max. switching frequency Sould be with standard mode 1.0 me mode 2.0 me mode 8000 Hz with standard mode 1.0 me mode 8000 Hz with standard mode 1.0 me mode 8000 Hz with speed mode 900 Hz with speed mode	Feature	Value
As per EU RoHS directive  UKCA marking (see declaration of conformity)  To UK Instructions for EMC To UK ROHS instructions  Note on materials  Readsured variable  Measured variable  Measured variable  Measured variable  Method of measurement  Fork light barrier  Type of light  Note on min. object diameter  Note on min. object diameter  Note on min. object diameter  O.3 mm  Note on min. object diameter  O.3 mm with standard mode 0.2 mm with high resolution mode 1.0 mm with power mode 0.3 mm with speed mode  Ambient temperature  2.5 °C 60 °C  Repetition accuracy  O.02 mm  Switching output  Push-pull NPN PNP  Switching element function  Switchable Hysteresis  O.1 mm  Max. switching frequency  Note on switching frequency  Soo0 Hz  Note on switching frequency  Town All standard mode 1500 Hz with high resolution mode 250 Hz with power mode 8000 Hz with standard mode 1500 Hz with high resolution mode 250 Hz with speed mode  Max. output current  Timer function  Nax. output current  Timer function  Pulsed  Protocol  IO-Link®  Protocol  IO-Link®  Device V 1.1	Certification	
To UK RoHS instructions  Note on materials  Measured variable  Measuring principle  Optoelectronic  Method of measurement  Type of light  Minimum object diameter  Note on min. object diameter  O.3 mm with standard mode 0.2 mm with high resolution mode 1.0 mm with speed mode  Ambient temperature  Ambient temperature  Switching output  Push-pull NPN PNP  Switching element function  Switchable  Hysteresis  O.1 mm  Max. switching frequency  Note on switching frequency  Max. output current  Max. output current  Timer function  Max. output curret  Max. output curret  Joo mA  Timer function  Pulsed  Protocol  IO-Link®, protocol version  Device V 1.1	CE marking (see declaration of conformity)	
Measured variable  Measuring principle  Optoelectronic  Method of measurement  Type of light  Red  Minimum object diameter  Note on min. object diameter  Ambient temperature  Ambient temperature  Repetition accuracy  Switching output  Push-pull NPN NPN PNP  Switching element function  Max. switching frequency  Note on switching frequency  Note on switching frequency  Max. output current  Max. output current  Max. output current  Timer function  Max. output current  Pushed  Ambient temperature  Position  Ambient temperature  Push-pull NPN NPN PNP  Switchable  1500 Hz with standard mode 1500 Hz with standard mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current  100 mA  Timer function  Pulsed  Protocol  IO-Link®  Protocol  IO-Link®  Povice V 1.1	UKCA marking (see declaration of conformity)	
Measuring principle  Method of measurement Type of light Red Minimum object diameter  Note on min. object diameter  O.3 mm with standard mode 0.2 mm with high resolution mode 1.0 mm with speed mode  Ambient temperature 2.5 °C60 °C Repetition accuracy  O.02 mm  Switching output  Push-pull NPN PNP Switching element function  Max. switching frequency  Note on switching frequency  Note on switching frequency  Soon Hz with standard mode 1.0 mm 1.0 mm  Max. switching frequency  Soon Hz	Note on materials	RoHS-compliant
Method of measurement Type of light Red Minimum object diameter Note on min. object diameter Note on min. object diameter O.3 mm with standard mode 0.2 mm with high resolution mode 1.0 mm with power mode 0.3 mm with speed mode Ambient temperature -25 °C60 °C Repetition accuracy O.02 mm Switching output Push-pull NPN PNP Switching element function Switchable Hysteresis O.1 mm Max. switching frequency Sooo Hz Note on switching frequency Sooo Hz Note on switching frequency Sooo Hz with standard mode 1500 Hz with speed mode 8000 Hz with speed mode 8000 Hz with speed mode 8000 Hz with speed mode 9100 Max. output current 100 mA Timer function Via IO-Link® Short-circuit protection Pulsed Protocol IO-Link® IO-	Measured variable	Position
Type of light  Minimum object diameter  Note on min. object diameter  Note on min. object diameter  O.3 mm with standard mode 0.2 mm with pixe resolution mode 1.0 mm with power mode 0.3 mm with speed mode  Ambient temperature  -25 °C60 °C  Repetition accuracy  O.02 mm  Switching output  Push-pull NPN PNP  Switching element function  Switchable  Hysteresis  O.1 mm  Max. switching frequency  Sooo Hz  Note on switching frequency  Note on switching frequency  Sooo Hz with standard mode 1500 Hz with power mode 8000 Hz with speed mode  Max. output current  100 mA  Timer function  Via IO-Link® Short-circuit protection  Pulsed  Protocol  IO-Link®, protocol version  Device V 1.1	Measuring principle	Optoelectronic
Minimum object diameter  Note on min. object diameter  Note on min. object diameter  O.3 mm with standard mode O.2 mm with high resolution mode 1.0 mm with power mode O.3 mm with speed mode  Ambient temperature  -25 °C60 °C  Repetition accuracy  O.02 mm  Switching output  Push-pull NPN PNP  Switching element function  Switchable  Hysteresis  O.1 mm  Max. switching frequency  Note on switching frequency  Sooo Hz  Sooo Hz  Sooo Hz  with standard mode 1500 Hz with standard mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current  100 mA  Timer function  Via IO-Link®  Short-circuit protection  Pulsed  Protocol  IO-Link®, protocol version  Device V 1.1	Method of measurement	Fork light barrier
Note on min. object diameter  0.3 mm with standard mode 0.2 mm with high resolution mode 1.0 mm with power mode 0.3 mm with speed mode 0.3 mm with speed mode 0.3 mm with speed mode 0.4 mm with speed mode 0.5 mm with speed mode 0.6 mm with speed mode 0.7 mm  Switching accuracy  0.02 mm  Push-pull NPN PNP  Switching element function Switchable Hysteresis 0.1 mm  Max. switching frequency Soon Hz Note on switching frequency Note on switching frequency Soon Hz with standard mode 1500 Hz with high resolution mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current 100 mA  Timer function Via IO-Link® Short-circuit protection Pulsed Protocol IO-Link® IO-Link® Device V 1.1	Type of light	Red
0.2 mm with high resolution mode 1.0 mm with power mode 0.3 mm with speed mode  Ambient temperature 2-25 °C60 °C  Repetition accuracy 0.02 mm  Switching output Push-pull NPN PNP  Switching element function Switchable  Hysteresis 0.1 mm  Max. switching frequency 5000 Hz  Note on switching frequency 5000 Hz with standard mode 1500 Hz with high resolution mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current 100 mA  Timer function Via IO-Link®  Short-circuit protection Pulsed Protocol IO-Link® IO-Link®, protocol version Device V 1.1	Minimum object diameter	0.3 mm
Repetition accuracy  Switching output  Push-pull NPN PNP  Switching element function  Switchable  Hysteresis  0.1 mm  Max. switching frequency  5000 Hz  Note on switching frequency  5000 Hz with standard mode 1500 Hz with high resolution mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current  100 mA  Timer function  Via IO-Link®  Protocol  IO-Link®, protocol version  O.2 mm  O.02 mm  Push-pull NPN PNP  Push-pull NPN PNP  Push-pull NPN PNP  Push-pull NPN PNP  Posh-pull NPN PNP  Switchable  5witchable  5witchable  5witchable  5witchable  5witchable  5witchable  10 mm  5witchable  10 mm  5witchable 15wit standard mode 15wo Hz with standard mode 15wo Hz with speed mode 15with speed mode  15witchable 15witchable 15witchable 15witchable 10-Link® 15witchable 10-Link® 15witchable 10-Link® 15witchable 10-Link® 15witchable 10-Link® 15witchable 10-Link® 10-	Note on min. object diameter	0.2 mm with high resolution mode 1.0 mm with power mode
Switching output  Push-pull NPN PNP  Switchable  Hysteresis  0.1 mm  Max. switching frequency  So00 Hz  Note on switching frequency  Note on switching frequency  Max. output current  Timer function  Switchable  100 mA  Via IO-Link®  Protocol  IO-Link®, protocol version  Push-pull NPN PNP  Push-pull NPN PNP  Push-pull NPN PNP  Switchable  5 witchable  5 witchable  5 out mm  5 000 Hz with standard mode 15 00 Hz with pish resolution mode 250 Hz with power mode 8000 Hz with speed mode  Via IO-Link®  IO-Link®  IO-Link®  Device V 1.1	Ambient temperature	-25 °C60 °C
NPN PNP PNP  Switching element function  Switchable  Hysteresis  0.1 mm  Max. switching frequency  5000 Hz  Note on switching frequency  5000 Hz with standard mode 1500 Hz with high resolution mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current  100 mA  Timer function  Via IO-Link®  Short-circuit protection  Pulsed  Protocol  IO-Link®, protocol version  Device V 1.1	Repetition accuracy	0.02 mm
Hysteresis  O.1 mm  Max. switching frequency  Note on switching frequency  Note on switching frequency  So00 Hz with standard mode 1500 Hz with high resolution mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current  100 mA  Timer function  Via IO-Link®  Short-circuit protection  Pulsed  Protocol  IO-Link®  IO-Link®  Device V 1.1	Switching output	NPN
Max. switching frequency  Note on switching frequency  Sound Hz with standard mode 1500 Hz with high resolution mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current  100 mA  Timer function  Via IO-Link®  Short-circuit protection  Pulsed  Protocol  IO-Link®, protocol version  Device V 1.1	Switching element function	Switchable
Note on switching frequency  5000 Hz with standard mode 1500 Hz with high resolution mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current  100 mA  Timer function  Via IO-Link®  Short-circuit protection  Pulsed  Protocol  IO-Link®  IO-Link®  Device V 1.1	Hysteresis	0.1 mm
1500 Hz with high resolution mode 250 Hz with power mode 8000 Hz with speed mode  Max. output current 100 mA  Timer function Via IO-Link®  Short-circuit protection Pulsed  Protocol IO-Link®, protocol version Device V 1.1	Max. switching frequency	5000 Hz
Timer function Via IO-Link®  Short-circuit protection Pulsed  Protocol IO-Link®  IO-Link®, protocol version Device V 1.1	Note on switching frequency	1500 Hz with high resolution mode 250 Hz with power mode
Short-circuit protection Pulsed Protocol IO-Link® IO-Link®, protocol version Device V 1.1	Max. output current	100 mA
Protocol IO-Link® IO-Link®, protocol version Device V 1.1	Timer function	Via IO-Link®
IO-Link®, protocol version Device V 1.1	Short-circuit protection	Pulsed
· · · · · · · · · · · · · · · · · · ·	Protocol	IO-Link®
IO-Link®, profile Smart sensor profile	IO-Link®, protocol version	Device V 1.1
	IO-Link®, profile	Smart sensor profile

Feature	Value
IO-Link®, function classes	Binary data channel (BDC) Process data variable (PDV) Identification Diagnostics Teach channel
IO-Link®, communication mode	COM2 (38,4 kBd)
IO-Link®, SIO mode support	Yes
IO-Link®, port class	А
IO-Link®, process data width OUT	0 Byte
IO-Link®, process data width IN	2 Byte
IO-Link®, process data content IN	1 bit BDC (stability) 1 bit BDC (switching signal) 12 bit PDV (signal level)
IO-Link®, service data contents IN	16 bit maximum signal level 16 bit minimum signal level 16 bit temperature 32 bit switching counter 8 bit teach-in quality
IO-Link®, minimum cycle time	2.3 ms
IO-Link®, data memory required	73 byte
DC operating voltage range	10 V30 V
Residual ripple	± 5 %
Idle current	30 mA
Reverse polarity protection	for all electrical connections
Electrical connection	3-pin M8x1 Plug
Electrical connection 1, connection type	Plug
Electrical connection 1, connection technology	M8x1 A-coded as per EN 61076-2-104
Electrical connection 1, number of pins/wires	3
Electrical connection 1, type of mounting	Snap-locking Screw-type lock not rotatable Compatible with snap-locking Compatible with rotatable screw-type lock
Size	Clevis 30x35 mm
Fork gap	30 mm
Product weight	68 g
Housing material	Die-cast metal, coated
Switching status indication	LED yellow
Setting options	IO-Link® Potentiometer
Degree of protection	IP67
Insulation voltage	500 V
Surge resistance	0.8 kV
Corrosion resistance class (CRC)	0 - No corrosion stress
LABS (PWIS) conformity	VDMA24364 zone III
Contamination level	3