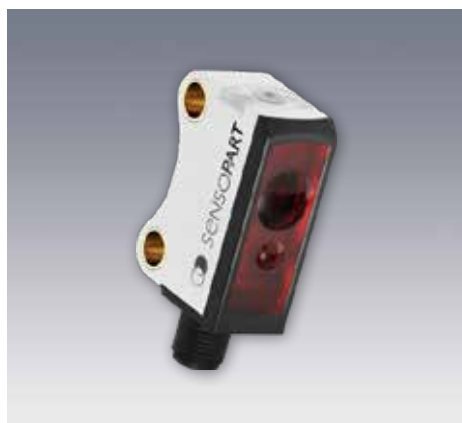


FT 10-RH

Photoelectric diffuse sensor with background suppression



PRODUCT HIGHLIGHTS

- Sub-miniature sensor with precise adjustable background suppression
- Precise and reliable switching behaviour even with varying object surfaces and colors
- Reliable operation even with highly reflective machine parts in the background, thanks to SensoPart ASIC technology
- Static and dynamic teach-in via electronic teach-in button or control line
- Setting of smart functions via IO-Link

Optical data		Functions	
Scanning distance	2 ... 70 mm ¹	Indicator LED, green	Operating voltage indicator
Adjustment range	10 ... 70 mm ¹	Indicator LED, yellow	Switching output indicator
Used light	LED, red, 650 nm	Scanning distance adjustment	Via Teach-in button, control input ⁵ and IO-Link
Light spot size	See diagram	Teach-in modes	Mode 1: during running process Mode 2: during standing process
Hysteresis	≤ 2 mm ²	Adjustment possibilities	N.O./N.C. and Auto-Detect / NPN / PNP via teach-in button, control input ⁵ and IO-Link Button lock via control input ⁵ and IO-Link Wide variety of adjustment possibilities via IO-Link
Grey/white shift (18 % / 90 %)	≤ 3 mm ²	Default settings	Max. range and N.O.
Black/white shift (6 % / 90 %)	≤ 4 mm ²		
Electrical data		Mechanical data	
Operating voltage, +U _B	10 ... 30V DC ³	Dimensions	21,1 × 14,6 × 8 mm
No-load current, I ₀	≤ 20 mA	Enclosure rating	IP 67 ⁶
Output current, I _e	≤ 50 mA	Material, housing	PUR
Protective circuits	Reverse-polarity protection, U _B / short-circuit protection (Q)	Material, front screen	PMMA
Protection class	2	Type of connection	See selection table
Power On Delay	< 300 ms	Ambient temperature: operation	-20 ... +60 °C ⁷
Switching output, Q	1x Auto-Detect (PNP/NPN) ⁴	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C.	Weight (plug device)	Approx. 3 g
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz	Weight (cable device)	Approx. 22 g
Response time	500 μs	Weight (pigtail)	Approx. 10 g
Control input, IN ⁵	+U _B = teach-in -U _B = button locked Open = normal operation		
IO-Link			
Communication mode	COM 2		
Min. cycletime	2.3 ms		
SIO mode	Compatible		
Length process data	16 Bit		
Specification	1.1		

¹ Reference material white, 90 % reflectivity ² At maximum scanning distance ³ Max. 10 % ripple within U_B, ~ 50 Hz / 100 Hz ⁴ Auto-Detect, automatic PNP/NPN selection by the sensor, PNP or NPN fixed ⁵ Only 4-pin design ⁶ With connected IP 67 plug ⁷ UL: -20 ... +30 °C

