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Notice of Discontinuation
HT77PBV3
Reflex Sensor with Background Suppression



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Available as PDF file only
Version 1.0
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Notice of discontinuation

Discontinued product:	HT77PBV3
Recommended alternative product:	P1PH901 P1PH603
Discontinuation on:	31.03.2026

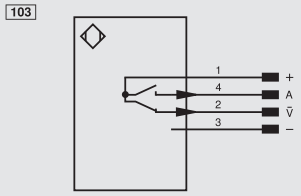
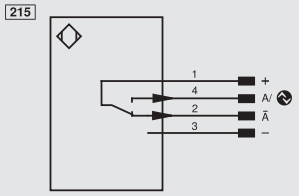
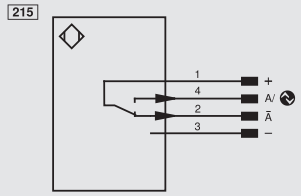
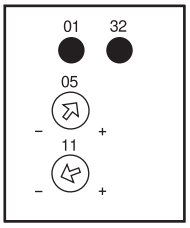
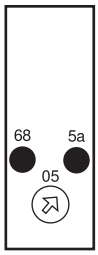
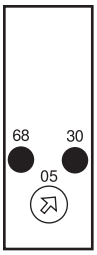
Key differences

Alternative product 1 is characterized by high insensitivity to interference and a larger detection range. Alternative product 2 is characterized by a higher switching frequency with a slightly reduced detection range. For the alternative products, an off-delay and a contamination output as NC or NO on pin 2 can be parameterized via IO-Link.
The alternative products cannot be connected in series.

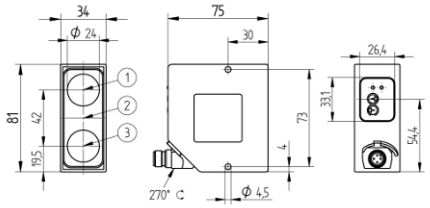
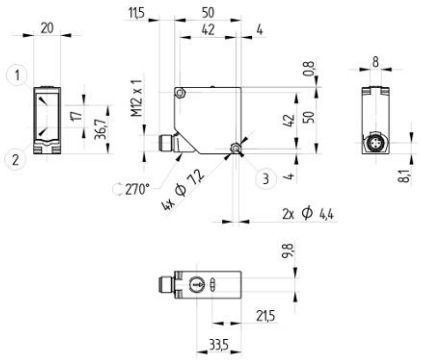
Below you will find a detailed product comparison:

	Discontinued product HT77PBV3	**Alternative product 1 P1PH901**	**Alternative product 2 P1PH603**
Product group	Reflex Sensor with Background Suppression	Reflex Sensor with Background Suppression	Reflex Sensor with Background Suppression
Photo of Product			
Optical data			
Range	1500 mm	2500 mm	1200 mm
Setting Range	300...1500 mm	200...2500 mm	100...1200 mm
Switching Hysteresis	< 5 %	< 5 %	< 5 %
Light Source	Infrared Light	Red Light	Red Light
Service Life (T = +25 °C)	100000 h	100000 h	100000 h
Max. Ambient Light	10000 Lux	40000 Lux	10000 Lux
Electrical data			
Supply Voltage	10...30 V DC	15...30 V DC	15...30 V DC
Supply Voltage with IO-Link		18...30 V DC	18...30 V DC
Current Consumption (Ub = 24 V)	40 mA	< 25 mA	< 20 mA
Switching Frequency	300 Hz	200 Hz	600 Hz
Switching Frequency (interference-free mode)		40 Hz	400 Hz
Response Time	1.7 ms	2,5 ms	1.5 ms
Response time (interference-free mode)		13 ms	2 ms
Off-Delay	0...1 s		
Temperature Drift	< 5 %	< 10 %	< 6 %
Temperature Range	-25...60 °C	-40...60 °C	-40...60 °C

	Discontinued product HT77PBV3	Alternative product 1 P1PH901	Alternative product 2 P1PH603
Switching Output Voltage Drop	< 2.5 V	< 2 V	< 2 V
Switching Output/Switching Current	200 mA	100 mA	100 mA
Contamination Output Voltage Drop	< 2.5 V		
PNP Contamination Output/ Switching Current	50 mA		
Short Circuit Protection	yes	yes	yes
Reverse Polarity Protection	yes	yes	yes
Overload Protection	yes	yes	yes
Interface		IO-Link V1.1	IO-Link V1.1
Protection Class	III	III	III
Mechanical data			
Setting Method	Potentiometer	Potentiometer	Potentiometer
Housing Material	Plastic, PBT	Plastic, ABS/PC	Plastic, ABS/PC
Optic Cover		Plastic, PMMA	Plastic, PMMA
Degree of Protection	IP67	IP67 IP68	IP67 IP68
Connection	M12 × 1; 4-pin	M12 × 1; 4-pin	M12 × 1; 4-pin
Output functions			
Output	PNP Contamination Output	PNP	PNP
Circuit	NO	NC+NO	NC+NO
Adjustable parameters			
Output		PNP	Push-pull NPN PNP
Circuit		NC NO inactive Error output NC+NO	NC NO inactive Error output NC+NO
Other parameters		Off-delay On-delay Mode of operation Hysteresis Switching point Emitted light	Off-delay On-delay Mode of operation Hysteresis Switching point Emitted light

	Discontinued product HT77PBV3	Alternative product 1 P1PH901	Alternative product 2 P1PH603
Technical drawings/connection diagrams/approvals			
connection diagram			
control panel	T1  05 = Switching Distance Adjuster 11 = ON-Delay/OFF-Delay Adjuster 01 = Switching Status Indicator 32 = Contamination Warning/Error Warning	A61  05 = Switching Distance Adjuster 68 = Power LED 5a = Switching Status Indicator, A1	A32  30 = Switching Status/Contamination Warning 05 = Switching Distance Adjuster 68 = Power LED
Approvals	CE, RoHS, UKCA, cULus LISTED IND. CONT. EQ 72HL / E189727 For use in class 2 circuits	CE, RoHS, UKCA, cULus LISTED IND. CONT. EQ 72HL / E189727 For use in class 2 circuits	CE, RoHS, UKCA, cULus LISTED IND. CONT. EQ 72HL / E189727 For use in class 2 circuits

Dimensioned images

HT77PBV3	P1PH901 and P1PH603
	
① Receiver Diode ② Transmitter Diode ③ Receiver Diode Screw M4 = 1 Nm	① Transmitter Diode ② Receiver Diode ③ Wrench Size 7 Screw M4 = 0.5 Nm

Light spot diameter

HT77PBV3

Detection Range	300 mm	800 mm	1500 mm
Light Spot Diameter	6 mm	18 mm	30 mm

P1PH901

Detection Range	250 mm	1200 mm	2500 mm
Light Spot Diameter	20 mm	35 mm	70 mm

P1PH603

Detection Range	100 mm	600 mm	1200 mm
Light Spot Diameter	14 mm	17 mm	24 mm