

	Scanning distance 300 ... 900 mm
Photoelectric proximity switches	

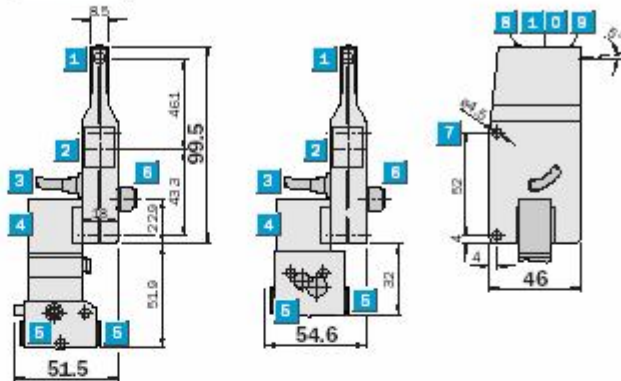
- 3 in 1: Photoelectric proximity switch, valve and logic form a compact unit
- Background suppression
- Continuously variable scanning distance
- Integrated logic for accumulating roller conveyors



See chapter Accessories
Cables and connectors
Mounting systems

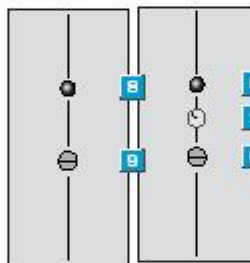
Dimensional drawing

WTR1-P421	WTR1-P721 S 09	WTR1-P421 S 02
WTR1-P721	WTR1-P721 S 10	
WTR1-P821		



Adjustments possible

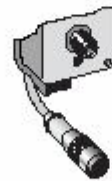
WTR1-P421	WTR1-P721 S 09
WTR1-P721	WTR1-P721 S 10
WTR1-P421 S 02	
WTR1-P821	



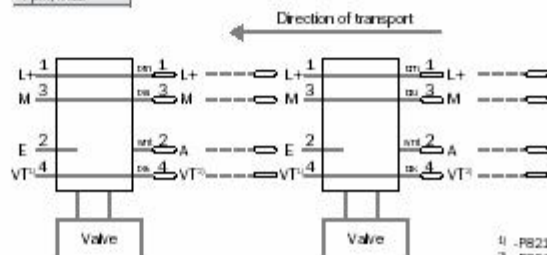
- 1 Centre of transmitter's optical axis
- 2 Centre of receiver's optical axis
- 3 Cable with receptacle, 4-pin
- 4 Solenoid valve
- 5 Media connector (2 x) ϕ 8 x 1
- 6 M12 plug, 4-pin
- 7 Mounting holes ϕ 4.5
- 8 LED signal strength indicator
- 9 Scanning distance adjustment
- 10 Control for timing element

Connection type

WTR1-P421	WTR1-P721 S 09	WTR1-P821
WTR1-P721	WTR1-P721 S 10	WTR1-P421 S 02



4-pin, M12



1) -P821: R
2) -P821: A_{VT}
2007-03-23

Technical data		WTR1	.P421	.P421 S02	.P721	.P721 S09	.P721 S10	.P821				
Scanning distance	300 ... 900 mm, adjustable											
Light spot diameter	Approx. 40 mm at 900 mm											
Light source ⁴⁾ , light type	LED, infrared light											
Supply voltage V_S ²⁾	24 V DC, +15%/-10%											
Ripple ³⁾	< 5 V _{pp} within V_S											
Current consumption ⁴⁾	< 25 mA											
Switching outputs	PNP dark-switching											
	HIGH = V_S - < 2 V / LOW = 0 V											
Output current I_A max.	100 mA											
Switching frequency	250/s											
Time delay	0 ... 5 s pick-up delay (low → high)											
	0 ... 5 s release delay (high → low)											
Connection type ⁵⁾	Cable, PVC, 1.2 m with 4-pin receptacle											
	Cable, PVC, 2.5 m with 4-pin receptacle											
	M12 plug, 4-pin											
Number of WTR ⁶⁾	ca. 23											
	ca. 30											
VDE protection class ⁷⁾	□											
Circuit protection ⁸⁾	A, B, C											
Enclosure rating	IP 54											
Ambient temperature	Operation -10 °C ... +55 °C											
	-15 °C ... +50 °C											
	Storage -25 °C ... +75 °C											
Shock load	To IEC 68											
Weight	Approx. 175 g											
Housing material/surface	ABS											
Logic mode	Individual feed, single release, slug release											
	Block feed, slug release											
Solenoid valve ⁹⁾ / type of construction	3/2-way valve											
Mode of operation	Closed when de-energized											
	Open when de-energized											
Media connectors	Instant plug-in connectors,											
	8 mm + 4 mm diameter											
Coil ratings	24 V DC, 1 W											
	24 V DC, 2 W											
Air flow rate	P → A, B: approx. 20 Nl/min											
Ventilation capacity	A, B → R: approx. 130 Nl/min											
	A, B → R: approx. 100 Nl/min											
Operating pressure range ¹⁰⁾	2 ... 8 bar											
	0.5 ... 7 bar											

⁴⁾ Average service life 100,000 h at $T_A = +25 °C$

²⁾ Limit values

³⁾ May not exceed or fall short of V_S tolerances

⁴⁾ Without load, without valve

⁵⁾ Do not bend cable below 0 °C

⁶⁾ Max. per power supply at 27.6 V DC

⁷⁾ Reference voltage 50 V DC

⁸⁾ A = Inputs/outputs reverse-polarity protected

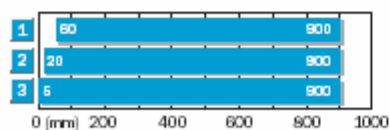
B = Outputs short-circuit protected

C = Interference pulse suppression

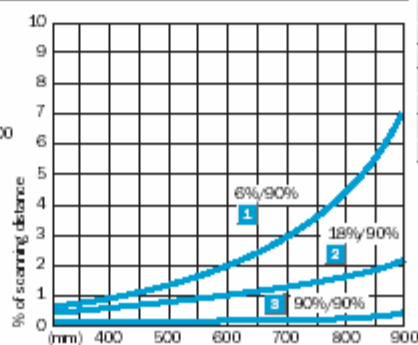
⁹⁾ Other valve types available on request. Medium: Compressed air or neutral gases (filtered) lubricated or unlubricated

¹⁰⁾ In combination with cylinders with small air volume we recommend tests

Scanning distance



- 1 Scanning distance on black, 6 % remission
- 2 Scanning distance on grey, 18 % remission
- 3 Scanning distance on white, 90 % remission



Order information

Type	Order no.
WTR1-P421	1013260
WTR1-P721	1015301
WTR1-P721S09	1016291
WTR1-P721S10	1017944
WTR1-P421S02	1015388
WTR1-P821	1015918