



**NOTIFICATION of END of LIFE PRODUCT**  
**Universal Voltage Sensors V Series**

December 18, 2023

To whom it may concern,

OPTEX FA Co., Ltd. appreciates and values your business.  
 We are announcing

**Product Description**

**V Series Universal Voltage Sensors**

Type	Model	
	No timer function	With timer function
Universal voltage	Through-beam	VT-4000
	Retro reflective	VR-1000
	Diffuse reflective	VD-130
		VD-300

Type	Model						
	NPN		PNP		NPN	PNP	
	No timer function		No timer function		With timer function		
	Terminal block	M12 connector	Terminal block	M12 connector	Terminal block	M12 connector	
DC power	Through-beam	VT-3000N	VT-3000CN	VT-3000P	VT-3000CP	-	-
	Retro reflective	VR-800N	VR-800CN	VR-800P	VR-800CP		
	Diffuse reflective	VD-100N	VD-100CN	VD-100P	VD-100CP		
		VD-250N	VD-250CN	VD-250P	VD-250P		

**Reason for EOL**

End of supply of key components

**Last Order Acceptance Date**

December 31, 2024

**Last Shipping Date**

June, 2025

**Replacement Products**

Discontinued Products	Alternative Proposal
Universal Voltage Sensors V Series	Universal Voltage Sensors V3/V4 Series

**Replacement Products Model Number**

Type		Discontinued Models	Alternative Proposal
		V Series	V3/V4 Series
Universal voltage	Through-beam	No timer function	V4T-7000
	Retro reflective		V4R-1200
	Diffuse reflective		V4D-200
	Through-beam	With timer function	-
	Retro reflective		-
	Diffuse reflective		-

Type				Discontinued Models	Alternative Proposal
				V Series	V3/V4 Series
DC power	NPN	No timer function	Terminal block	VT-3000N	V4T-7000N
				VR-800N	V4R-1200N
				VD-100N	V4D-200N
			M12 Connector	VD-250N	V4D-200N
				VT-3000CN	V3T-7000CN
				VR-800CN	V3R-1200CN
	PNP	No timer function	Terminal block	VD-100CN	V3D-200CN
				VD-250CN	V3D-200CN
				VT-3000P	V4T-7000P
			M12 Connector	VR-800P	V4R-1200P
				VD-100P	V4D-200P
				VD-250P	V4D-200P

\*For details, please see attached sheet or contact OPTEX FA.

Thank you very much for your support for OPTEX FA products.

Sincerely,  
 International Department  
 OPTEX FA Co., Ltd.

Comparison table with alternative proposals

Type			Discontinued Products				Alternative Proposal		
			V Series				V3/V4 Series		
			Universal voltage				Universal voltage		
			Through-beam	Retro-reflective	Diffuse-reflective		Through-beam	Retro-reflective	Diffuse-reflective
Model	No timer function	Terminal block	VT-4000	VR-1000	VD-130	VD-300	V4T-7000	V4R-1200	V4D-200
		Cable	-	-	-	-	V3T-7000	V3R-1200	V3D-200
	With timer function	Terminal block	VT-4000T	VR-1000T	VD-130T	VD-300T	-	-	-
Sensing distance			40 m	0.01 to 10 m <sup>*1</sup>	1.3 m <sup>*2</sup>	3 m <sup>*3</sup>	70 m	0.01 to 12 m <sup>*1</sup>	0.01 to 2 m <sup>*2</sup>
Light source			Red LED			Infrared LED	Red LED		
Response time			20 ms or less				20 ms or less		
Hysteresis			-		20% or less		-		20% or less
Distance adjustment			1-turn potentiometer				1-turn potentiometer		
Indicators			Output indicator: orange LED, Power indicators for through-beam type emitter: red LED				Output indicator: orange LED, Stability indicator: green LED		
Control output			Relay × 1C <sup>*4</sup> 240 VAC/30 VDC 3 A or less (load resistance)				Relay × 1C <sup>*4</sup> 240 VAC/30 VDC, 3 A or less (load resistance)		
Output mode			Fixed to Light ON				Fixed to Light ON		
Connection type			Terminal block type (applicable cable outer diameter: ø6 to ø10 mm),				Terminal block type (applicable cable outer diameter: ø4 to 8 mm), Cable type: Cable length: 2 m, ø6.3		
Insulation resistance			20 MΩ or more (500 VDC)				20 MΩ or more (500 VDC)		
Rating	Supply voltage		12 to 240 VDC ±10%, 24 to 240 VAC ±10% 50/60 Hz				24 to 240 VDC ±10%, 24 to 240 VAC ±10% 50/60 Hz		
	Power consumption		8.5 VA	5 VA		3 VA or less (Class A) 4 VA or less (Class B)		2 VA or less (Class A) 2.5 VA or less (Class B)	
Applicable regulations			EMC directive (2004/108/EC), Low voltage directive (2006/95/EC)				EMC directive (2004/108/EC), Low voltage directive (2006/95/EC)		
Applicable standards			EN 60947-5-2				EN 60947-5-2		
Company standards			Noise resistance: Feilen Level 3 cleared				Noise resistance: Feilen Level 3 cleared		
Environmental resistance	Ambient temperature/humidity		-25 to +55°C (no freezing)/35 to 85% RH (no condensation)				-25 to +55°C (no freezing)/35 to 85% RH (no condensation)		
	Ambient illuminance		Sunlight: 10,000 lx or less, Incandescent lamp: 3,000 lx or less				Sunlight: 10,000 lx or less, Incandescent lamp: 3,000 lx or less		
	Voltage resistance		2700 VAC/minute				2700 VAC/minute		
	Vibration resistance		10 to 55 Hz; double amplitude 1.5 mm; 2 hours in each of the X, Y, and Z directions				10 to 55 Hz; double amplitude 1.5 mm; 2 hours in each of the X, Y, and Z directions		
	Shock resistance		Approx. 50 G (500 m/s <sup>2</sup> ); 3 times in each of the X, Y, and Z directions				Approx. 50 G (500 m/s <sup>2</sup> ); 3 times in each of the X, Y, and Z directions		
	Degree of protection		IP67				IP67		
Material			Housing/Cover: ABS (glass fiber filled), Lens/Lens cover: PMMA				Housing: ABS (glass fiber filled, fire resistant), Front cover: Polycarbonate (retro-reflective type is PMMA)		
Weight without cable			Emitter: 70 g Receiver: 90 g	95 g		Emmitter: Approx. 70 Receiver: Approx. 85 g		Approx. 85 g	
Dimensions (mm)			VT - Terminal block type 				Terminal block type 		
			VR, VD - Terminal block type 				Cable type 		

\*1. With the V-61 reflector

\*2. Using a 200 × 200 mm white sheet of paper.

\*3. Using a 400 × 400 mm white sheet of paper.

\*4. When driving the inductive load (with an induction valve, electromagnetic contactor, etc.) through the relay connection point, please use a noise absorption device (surge absorber).

Comparison table with alternative proposals

Type				Discontinued Products				Alternative Proposal							
				V Series				V3/V4 Series							
				DC power				DC power							
				Through-beam	Retro-reflective	Diffuse-reflective		Through-beam	Retro-reflective	Diffuse-reflective					
Model	NPN	No timer function	Terminal block	VT-3000N	VR-800N	VD-100N	VD-250N	V4T-7000N	V4R-1200N	V4D-200N					
			Cable	-	-	-	-	V3T-7000N	V3R-1200N	V3D-200N					
			Connector	VT-3000CN	VR-800CN	VD-100CN	VD-250CN	V3T-7000CN	V3R-1200CN	V3D-200CN					
		With timer function	-	-	-	-	-	-	-						
	PNP	No timer function	Terminal block	VT-3000P	VR-800P	VD-100P	VD-250P	V4T-7000P	V4R-1200P	V4D-200P					
			Cable	-	-	-	-	V3T-7000P	V3R-1200P	V3D-200P					
			Connector	VT-3000CP	VR-800CP	VD-100CP	VD-250CP	V3T-7000CP	V3R-1200CP	V3D-200CP					
		With timer function	-	-	-	-	-	-	-						
Sensing distance				30 m	0.01 to 8 m <sup>*1</sup>	1 m <sup>*2</sup>	2.5 m <sup>*3</sup>	70 m	0.01 to 12 m <sup>*1</sup>	0.01 to 2 m <sup>*2</sup>					
Light source				Red LED			Infrared LED			Red LED					
Response time				1.5 ms or less			5 ms or less			0.5 ms or less					
Hysteresis				-			20% or less			-			20% or less		
Distance adjustment				1-turn potentiometer				1-turn potentiometer							
Indicators				Output indicator: orange LED, Power indicators for through-beam type emitter: red LED				Output indicator: orange LED, Stability indicator: green LED							
Control output				NPN/PNP Open collector Max. 100 mA/30 VDC				NPN/PNP Open collector Max. 100 mA/30 VDC							
Output mode				Light ON/Dark ON selection switch				Light ON/Dark ON selection switch							
Connection type				Terminal block type (applicable cable outer diameter: ø6 to ø10 mm),				Terminal block type (applicable cable outer diameter: ø4 to 8 mm), Cable type: Cable length: 2 m, ø3.8, Connector type: M12, 4-pin							
Insulation resistance				20 MΩ or more (500 VDC)				20 MΩ or more (500 VDC)							
Rating	Supply voltage			10 to 30 VDC, including 10% ripple (p-p)				10 to 30 VDC, including 10% ripple (p-p)							
	Current consumption			35 mA or less				35 mA or less							
Applicable regulations				EMC directive (2004/108/EC)				EMC directive (2004/108/EC)							
Applicable standards				EN 60947-5-2				EN 60947-5-2							
Company standards				Noise resistance: Feilen Level 3 cleared				Noise resistance: Feilen Level 3 cleared							
Environmental resistance	Ambient temperature/humidity			-25 to +55°C (no freezing)/35 to 85% RH (no condensation)				-25 to +55°C (no freezing)/35 to 85% RH (no condensation)							
	Ambient illuminance			Sunlight: 10,000 lx or less, Incandescent lamp: 3,000 lx				Sunlight: 10,000 lx or less, Incandescent lamp: 3,000 lx or less							
	Vibration resistance			10 to 55 Hz; double amplitude 1.5 mm; 2 hours in each of the X, Y, and Z directions				10 to 55 Hz; double amplitude 1.5 mm; 2 hours in each of the X, Y, and Z directions							
	Shock resistance			Approx. 50 G (500 m/s <sup>2</sup> ); 3 times in each of the X, Y, and Z directions				Approx. 50 G (500 m/s <sup>2</sup> ); 3 times in each of the X, Y, and Z directions							
Degree of protection				IP67				IP67							
Material				Housing/Cover: ABS (glass fiber filled), Lens/Lens cover: PMMA				Housing: ABS (glass fiber filled, fire resistant), Front cover: Polycarbonate (retro-reflective type is PMMA)							
Weight without cable				Emitter: 70 g Receiver: 90 g		95 g		Emitter: Approx. 70 g Receiver: Approx. 85 g		Approx. 85 g					
Dimensions (mm)				VT - Terminal block type		Connector type		Terminal block type		Connector type					
				VR, VD - Terminal block type		Connector type		Cable type							

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\*2. Using a 200 X 200 mm white sheet of paper.

\*3. Using a 400 X 400 mm white sheet of paper.