



Product Discontinuation Notices

August 1, 2011

Proximity Sensors

No. 2011249E

Discontinuation Notice of Proximity Sensor Model TL-T series

Product Discontinuation Proximity Sensor



Model TL-T2E1 Model TL-T5ME1(5) Model TI-T5ME2 Model TL-T5MF1

Model TL-T[](-[]) Excluding the above-mentioned

Discontinuation date : The end of March, 2012

Caution on recommended replacement

- Differences are type of control output TL-T[]E[]: NPN TL-T[]F[]: PNP TL-Q[]MC[]: NPN open collector TL-Q[]MB: PNP open collector - Mounting dimensions 16mm±0.2mm or 32mm±0.2×17mm±0.2mm TL-T: TL-Q2MC1: 18.5mm±0.2mm TL-Q5M[][]: 10.5mm±0.1mm - Response frequency TL-T2[]: 800Hz min. TL-T5M[]: 250Hz min. TL-Q[]: 500Hz min. - Load current 100mA max. (12VDC) 200mA max. (24VDC) TL-T[]: TL-Q2MC1: 100mA max. (12 to 24VDC) TL-Q5M[]: 50mA max. (12 to 24VDC) Additionally, please refer to characteristics.

No recommended replacement

Recommended Replacement

Proximity Sensor

Model TL-Q2MC1

Model TL-Q5MC2

Model TL-Q5MB1

Model TL-Q5MC1(5)

OMRON Corporation Industrial Automation Company

Difference from discontinued product

Model	Body Color	Dimen sions	Wire connection	Mounting Dimensions	Charact eristics	Operation ratings	Operation methods
TL-Q2MC1					*	*	-
TL-Q5MC1(5)							-
TL-Q5MC2							-
TL-Q5MB1							-

** : Fully compatible
* : The change is a little/Almost compatible
-- : Not compatible
- : No corresponding specification

Product Discontinuation and recommended replacement

Product discontinuation	Recommended replacement
TL-T2E1 2M	TL-Q2MC1 2M
TL-T2E1 5M	TL-Q2MC1 5M
TL-T5ME1 2M	TL-Q5MC1 2M
TL-T5ME1 5M	TL-Q5MC1 5M
TL-T5ME2 2M	TL-Q5MC2 2M
TL-T5ME2 5M	TL-Q5MC2 5M
TL-T2E2 2M	No recommended replacement
TL-T2E2 5M	
TL-T5ME15 2M	TL-Q5MC15 2M
TL-T5ME25 2M	No recommended replacement
TL-T2E15 2M	- · · · · · · · · · · · · · · · · · · ·
TL-T2F15 2M	
TL-T2F25 2M	
TL-T2F15 5M	
TL-T2Y15 2M	4
TL-T2F1 2M	-
TL-T2F1 5M	
TL-T2F2 2M	
TL-T2F2 5M	
TL-T5MF1 2M	TL-Q5MB1 2M
TL-T5MF15 2M	No recommended replacement
TL-T5MF2 2M	No recommended replacement
TL-T5MF25 2M	
TL-T2E15 5M	
TL-T2Y1 2M	
TL-T2Y1 5M	
TL-T2Y2 2M	
TL-T2Y2 5M	
TL-T5MY1 2M	
TL-T5MY1 5M	
TL-T5MY15 2M	-
TL-T5MY15 5M	
	-
TL-T5MY2 2M	4
TL-T5MY25 2M	4
TL-T5E1-7 2M	
TL-T5E1-7 3M	4
TL-T5E1-7 5M	
TL-T5E2-7 2M	
TL-T5MF1 10M	

Body color

Product discontinuation TL-T series	Recommended replacement TL-Q series
<tl-t[]> Body :Black Cable :Dark gray</tl-t[]>	<tl-q2mc1, tl-q5m[][]=""> Body : Yellow Cable : Dark gray (TL-Q2MC1) : Light gray (TL-Q5M[][])</tl-q2mc1,>
<tl-t5e[]-7> Sensing surface: Light gray Body : Yellow Cable : Dark gray</tl-t5e[]-7>	No recommended replacement

Dimensions



Wire Connection



Wire Connection



Mounting dimensions

Product discontinuation TL-T series	Recommended replacement TL-Q series
<tl-t[]> Mounting holes 16mm±0.2mm or 32mm±0.2×17mm±0.2mm Mounting screw 2-M3</tl-t[]>	<tl-q2mc1, tl-q5m[][]=""> Mounting holes TL-Q2MC1: 18.5mm±0.2mm TL-Q5M[]: 10.5mm±0.1mm Mounting screw TL-Q2MC1: 1-M3 TL-Q5M[]: 2-M3</tl-q2mc1,>
<tl-t5e[]-7> Mounting holes 25mm±0.3mm Mounting screw 2-M4</tl-t5e[]-7>	No recommended replacement

Model		Product discontinuation TL-T2E1	Recommended replacement TL-Q2MC1		
Item		TL-T2E2	No Replacement		
Sensing distance		2mm±10%	2mm±15%		
Set distar	nce	0 to 1.6mm	0 to 1.5mm		
Differentia	al travel	10% max. of sensing distance			
Standard	sensing object	Iron, 12×12×1mm	Iron, 8×8×1mm		
Response	e frequency	800Hz min.	500Hz min.		
Power su	pply voltage	12 to 24VDC (10 to 30VDC),	12 to 24VDC (10 to 30VDC),		
(operating	y voltage range)	ripple (p-p):20%max.	ripple (p-p):10%max.		
Current c	onsumption	15mA max.			
Control	Load current	NPN open collector	NPN open collector		
output		100mA max. (at 12VDC)	100mA max.		
		200mA max. (at 24VDC)	(30VDC max.)		
	Residual	1V max.	1V max.		
	voltage	(under load current of 100mA with	(under load current of 100mA with		
	-	cable length of 2m)	cable length of 2m)		
Indicators	6	Detection indicator (red)			
Operatio	n mode	E1:NO	NO		
(with sense	sing object	E2:NC			
approach	ing)				
Protection	n circuit	Reverse polarity protection, Surge suppressor			
Ambient t	emperature	Operating/Storage: -25 to 70°C	Operating/Storage: -10 to 60°C		
range		(with no icing or condensation)	(with no icing or condensation)		
	numidity range	Operating/strage:35% to 95% (with no condensation)			
Temperat	ure influence	±10% max. of sensing distance at	±10% max. of sensing distance at		
		23°C in the temperature range of -25	23°C in the temperature range of -10		
		to 70°C	to 60°C		
Voltage ir	nfluence	±2.5% max. of sensing distance at	±2.5% max. of sensing distance at		
		rated voltage in the rated voltage	rated voltage in the rated voltage		
		±15% range	±10% range		
	resistance	50M Ω min. (at 500VDC) between current-carrying parts and case			
Dielectric strength		1000VAC, 50/60Hz for 1 minute between current-carrying parts and case			
Vibration resistance		Destruction:10 to 55Hz, 1.5-mm double amplitude for 2 hours each in X,Y and			
		Z directions			
Shock resistance		Destruction:500m/s ² 10 times each	Destruction:1000m/s ² 10 times each in		
		in X,Y and Z directions	X,Y and Z directions		
Degree of protection		IEC60529 IP67			
		in-house standards: oil-resistant			
Materials		Case/Cover: Heart-resistant ABS			

ltem	Model	Product discontinuation TL-T5ME1 TL-T5ME2 TL-T5MF1	Recommended replacement TL-Q5MC1 TL-Q5MC2 TL-Q5MB1	
Sensing distance		5mm±10%	5mm±15%	
Set distar		0 to 4mm	0 to 4mm	
Differentia	al travel	10% max. of sensing distance		
Standard	sensing object	Iron, 15×15×1mm		
	e frequency	250Hz min.	500Hz min.	
Power su	pply voltage	12 to 24VDC (10 to 30VDC),	12 to 24VDC (10 to 30VDC),	
	y voltage range)	ripple (p-p):20%max.	ripple (p-p):10 [°] /max.	
	onsumption	15mA max.	10mA max.	
Control Load current output		E1, E2: NPN 100mA max. (at 12VDC) 200mA max. (at 24VDC)	C1, C2: NPN open collector 50mA max. (30VDC max.)	
		F1: PNP 100mA max. (at 12VDC) 200mA max. (at 24VDC)	B1: PNP open collector 50mA max. (30VDC max.)	
Residual voltage		1V max. (under load current of 100mA with cable length of 2m)	1V max. (under load current of 100mA with cable length of 2m)	
Indicators		Detection indicator (red)		
Operation (with sense approach	sing object	E1:NO E2:NC F1:NO	C1:NO C2:NC B1:NO	
Protection		Reverse polarity protection, Surge suppressor		
	emperature	Operating/Storage: -25 to 70°C	Operating/Storage: -25 to 70°C	
range		(with no icing or condensation)	(with no icing or condensation)	
	numidity range	Operating/strage:35% to 95% (with no condensation)		
Temperature influence		±10% max. of sensing distance at 23 °C in the temperature range of -25 to 70 °C	±20% max. of sensing distance at 23 °C in the temperature range of -25 to 70 °C	
Voltage influence		±2.5% max. of sensing distance at rated voltage in the rated voltage ±15% range	±2.5% max. of sensing distance at rated voltage in the rated voltage ±10% range	
Insulation	resistance	50 M Ω min. (at 500VDC) between current-carrying parts and case	5 M Ω min. (at 500VDC) between current-carrying parts and case	
Dielectric strength		1000VAC, 50/60Hz for 1 minute between current-carrying parts and case	500VAC, 50/60Hz for 1 minute between current-carrying parts and case	
Vibration resistance		Destruction:10 to 55Hz, 1.5-mm double amplitude for 2 hours each in X, Y and Z directions		
Shock resistance		Destruction:500m/s ² 10 times each in X, Y and Z directions	Destruction:200m/s ² 10 times each in X, Y and Z directions	
Degree of protection		IEC60529 IP67 in-house standards: oil-resistant	IEC60529 IP67	
Materials		Case/Cover: Heart-resistant ABS		

	Model	Product discontinuation				
ltem		TL-T2F[]	TL-T5MF[]	TL-T2Y[]	TL-T5MY[]	
Sensing distance		2mm±10%	5mm±10%	2mm±10%	5mm±10%	
Set distance		0 to 1.6mm	0 to 4mm	0 to 1.6mm	0 to 4mm	
Differentia	al travel	10% max. of sensing distance			•	
Standard	sensing	Iron, 12×12×1mm	Iron, 15×15×1mm	Iron, 12×12×1mm	Iron, 15×15×1mm	
object	U U					
Response	e frequency	250Hz min.	800Hz min.	20Hz min.		
Power su	pply voltage	12 to 24VDC (10 to	30VDC),	100 to 220VAC (90 to 250VAC)		
(operating	g voltage	ripple (p-p):20%ma	X.	50/60Hz	,	
range)						
Current c	onsumption	15mA max.			-	
Leakage	current		-	2.5mA max.		
Control	Load current	PNP		10 to 200mA		
output		100mA max.(at 12)	/DC)			
		200mA max.(at 24)	/DC)			
	Residual	1V max.			-	
	voltage	(under load current	of 100mA with			
		cable length of 2m)				
Indicators		Detection indicator (red)				
Operation	n mode	F1:NO Y1:NO		NO		
	sing object	F2:NC Y2:NC		:NC		
approach						
Protection	n circuit	Reverse polarity protection, Surge		Surge suppressor		
		suppressor				
Ambient temperature		Operating/Storage: -25 to 70 °C (with no icing or condensation)				
range						
	numidity range	Operating/strage:35% to 95% (with no condensation)				
	ture influence	±10% max. of sensing distance at 23°C in the temperature range of -25 to 70 °C				
Voltage ir		±2.5% max. of sensing distance at rated voltage in the rated voltage ±15% range				
Insulation resistance		50MΩ min.(at 500VDC) between current-carrying parts and case				
Dielectric strength		1000VAC, 50/60Hz for 1 minute 2000VAC, 50/60Hz for 1 m		z for 1 minute		
_		between current-carrying parts and between current-		between current-ca	arrying parts and	
		case case				
Vibration resistance		Destruction:10 to 55Hz, 1.5-mm double amplitude for 2 hours each in X, Y and Z				
		directions				
Shock resistance		Destruction:500m/s ² 10 times each in X, Y and Z directions				
Degree of	f protection	IEC60529 IP67				
		in-house standards: oil-resistant				
Materials		Case/Cover: Heart-resistant ABS				

Model		Product discontinuation	
Item		TL-T5E[]-7	
Sensing distance		5mm±10%	
Set distar	nce	0 to 4mm	
Differentia	al travel	10% max. of sensing distance	
Standard	sensing object	Iron, 20×20×1mm	
Response	e frequency	400Hz min.	
Power su	pply voltage	12 to 24VDC (10 to 30VDC), ripple (p-p): 20%max.	
(operating	g voltage range)		
Current c	onsumption	20mA max.	
Control	Load current	NPN	
output		400mA max. (at 24VDC)	
	Residual voltage	1.5V max.	
	_	(under load current of 400mA with cable length of 2m)	
Indicators	6	Detection indicator (red)	
Operation	n mode	E1:NO	
(with sense	sing object approaching)	E2:NC	
Protection	n circuit	Reverse polarity protection, Surge suppressor	
Ambient t	temperature range	Operating/Storage: -25 to 70°C (with no icing or condensation)	
Ambient I	humidity range	Operating/storage: 35% to 95% (with no condensation)	
Temperature influence		$\pm 10\%$ max. of sensing distance at 23°C in the temperature range of -25 to 70°C	
Voltage influence		±2.5% max. of sensing distance at rated voltage in the rated voltage ±10% range	
Insulation	resistance	100M Ω min.(at 500VDC) between current-carrying parts and case	
Dielectric strength		1000VAC, 50/60Hz for 1 minute between current-carrying parts and case	
Vibration resistance		Destruction:10 to 55Hz, 1.5-mm double amplitude for 2 hours each in X,Y and Z directions	
Shock resistance		Destruction:500m/s ² 10 times each in X,Y and Z directions	
Degree of protection		IEC60529 IP67	
Materials		Case: Die cast aluminum	
-		Sensing surface: Heart-resistant ABS	

Operation ratings



