

## Thru-beam Mode (Slot Sensors)

Bg: U SERIES

Sensors type	<b>U05</b>	<b>U15</b>
Slot spacing	5mm	15mm
Dimensions(Unit: mm)		
PNP red light 660nm	U05-T0005P-CY6Q4UP	U15-T0015P-CY6Q4UP
NPN red light 660nm	U05-T0005N-CY6Q4UP	U15-T0015N-CY6Q4UP
PNP infrared light 880nm	U05-T0005P-CY9Q4UP	U15-T0015P-CY9Q4UP
NPN infrared light 880nm	U05-T0005N-CY9Q4UP	U15-T0015N-CY9Q4UP
Supply voltage	10...30 V DC	
Voltage drop	< 1.5 V	
Rated isolation voltage	75 V DC	
Rated operational current	200 mA	
No-load supply current	≤ 35 mA	
Protected against polarity reversal	YES	
Short-circuit protected	YES	
On/Off delay	0.2 ms	
Frequency of operating cycles	1000 Hz	
Switching hysteresis	≤ 0.1 mm	
Resolution	0.3 mm	
Repeatability	0.02 mm	
Output function	Light on / Dark on	
Permissible ambient light	10 Klux	
Function indicator	LED red	
Ambient temperature range	-10...60°C	
Degree of protection	IP 65	
EMC	IEC 60947-5-2, Parts 7.2.6.1.2.3 or RFI>3V/m (in 30-1000MHz),EFT>1KV, ESD>4KV(contact)	
Shock	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each	
Vibration	IEC 60947-5-2, Part 7.4.2 or 10-55Hz, 1.0mm amplitude in x, y and z directions for 30min	
Housing material	Die-cast	
Connection	M8 4pin Connector	
Weight	20 g	23 g
Photo		

**Note:**  
 Coming Soon : Part numbers with underline  
 In Preparation: Part numbers with a line through the middle

## Thru-beam Mode (Slot Sensors)

Sensors type	<b>U30</b>	<b>U50</b>
Slot spacing	30mm	50mm
Dimensions(Unit: mm)		
PNP red light 660nm	U30-T0030P-CY6Q4UP	U50-T0050P-CY6Q4UP
NPN red light 660nm	U30-T0030N-CY6Q4UP	U50-T0050N-CY6Q4UP
PNP infrared light 880nm	U30-T0030P-CY9Q4UP	U50-T0050P-CY9Q4UP
NPN infrared light 880nm	U30-T0030N-CY9Q4UP	U50-T0050N-CY9Q4UP
Supply voltage	10...30 V DC	
Voltage drop	< 1.5 V	
Rated isolation voltage	75 V DC	
Rated operational current	200 mA	
No-load supply current	≤ 35 mA	
Protected against polarity reversal	YES	
Short-circuit protected	YES	
On/Off delay	0.2 ms	
Frequency of operating cycles	500 Hz	
Switching hysteresis	≤ 0.1 mm	
Resolution	0.3 mm	0.5 mm
Repeatability	0.02 mm	0.04 mm
Output function	Light on / Dark on	
Permissible ambient light	10 Klux	
Function indicator	LED red	
Ambient temperature range	-10...60°C	
Degree of protection	IP 65	
EMC	IEC 60947-5-2, Parts 7.2.6.1.2.3 or RFI>3V/m (in 30-1000MHz),EFT>1KV, ESD>4KV(contact)	
Shock	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each	
Vibration	IEC 60947-5-2, Part 7.4.2 or 10-55Hz, 1.0mm amplitude in x, y and z directions for 30min	
Housing material	Die-cast	
Connection	M8 4pin Connector	
Weight	36 g	58 g
Photo		

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## Thru-beam Mode (Slot Sensors)

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Sensors type	U80	U120
Slot spacing	80mm	120mm
Dimensions(Unit: mm)		
PNP red light 660nm	U80-T0080P-CY6Q4UP	U120-T0120P-CY6Q4UP
NPN red light 660nm	U80-T0080N-CY6Q4UP	U120-T0120N-CY6Q4UP
PNP infrared light 880nm	U80-T0080P-CY9Q4UP	U120-T0120P-CY9Q4UP
NPN infrared light 880nm	U80-T0080N-CY9Q4UP	U120-T0120N-CY9Q4UP
Supply voltage	10...30 V DC	
Voltage drop	< 1.5 V	
Rated isolation voltage	75 V DC	
Rated operational current	200 mA	
No-load supply current	≤ 35 mA	
Protected against polarity reversal	YES	
Short-circuit protected	YES	
On/Off delay	0.33 ms	
Frequency of operating cycles	500 Hz	
Switching hysteresis	≤ 0.2 mm	
Resolution	0.5 mm	0.8 mm
Repeatability	0.06 mm	0.08 mm
Output function	Light on / Dark on	
Permissible ambient light	5 Klux	
Function indicator	LED red	
Ambient temperature range	-10...60°C	
Degree of protection	IP 65	
EMC	IEC 60947-5-2, Parts 7.2.6.1.2.3 or RFI>3V/m (in 30-1000MHz),EFT>1KV, ESD>4KV(contact)	
Shock	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each	
Vibration	IEC 60947-5-2, Part 7.4.2 or 10-55Hz, 1.0mm amplitude in x, y and z directions for 30min	
Housing material	Die-cast	
Connection	M8 4pin Connector	
Weight	79 g	116 g
Photo		

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## Thru-beam Mode (Slot Sensors)

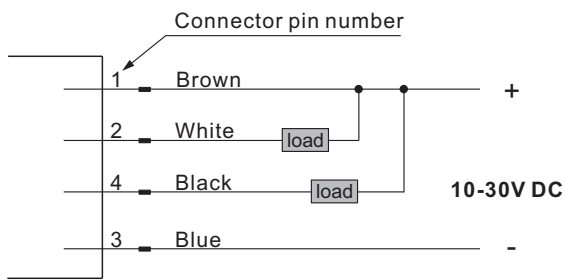
Sensors type	<b>U180</b>	<b>U220</b>
Slot spacing	180mm	220mm
Dimensions(Unit: mm)		
PNP red light 660nm		
NPN red light 660nm		
PNP infrared light 880nm		
NPN infrared light 880nm		
Supply voltage	10...30 V DC	
Voltage drop	< 1.5 V	
Rated isolation voltage	75 V DC	
Rated operational current	200 mA	
No-load supply current	≤ 35 mA	
Protected against polarity reversal	YES	
Short-circuit protected	YES	
On/Off delay	0.33 ms	
Frequency of operating cycles	1500 Hz	
Switching hysteresis	≤ 0.2 mm	
Resolution	0.8 mm	1.0 mm
Repeatability	0.08 mm	0.10 mm
Output function	Light on / Dark on	
Permissible ambient light	5 Klux	
Function indicator	LED red	
Ambient temperature range	-10...60°C	
Degree of protection	IP 65	
EMC	IEC 60947-5-2, Parts 7.2.6.1.2.3 or RFI>3V/m (in 30-1000MHz),EFT>1KV, ESD>4KV(contact)	
Shock	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each	
Vibration	IEC 60947-5-2, Part 7.4.2 or 10-55Hz, 1.0mm amplitude in x, y and z directions for 30min	
Housing material	Die-cast	
Connection	M8 4pin Connector	
Weight	190 g	220 g
Photo		

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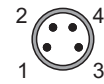
## Connection Diagrams

### NPN output type



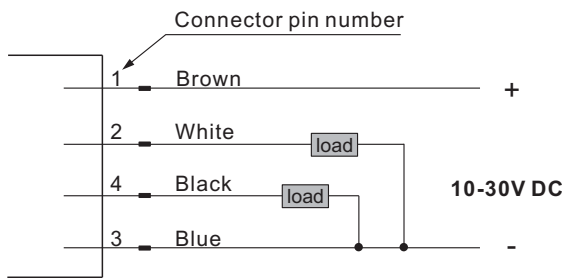
#### Connector face view

Pico-Style



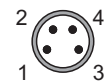
- 1. Brown (+)
- 2. White (Output)
- 3. Blue (-)
- 4. Black (Output)

### PNP output type



#### Connector face view

Pico-Style



- 1. Brown (+)
- 2. White (Output)
- 3. Blue (-)
- 4. Black (Output)