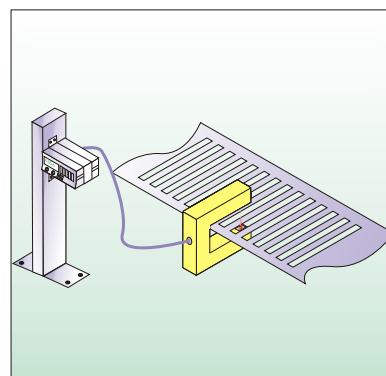
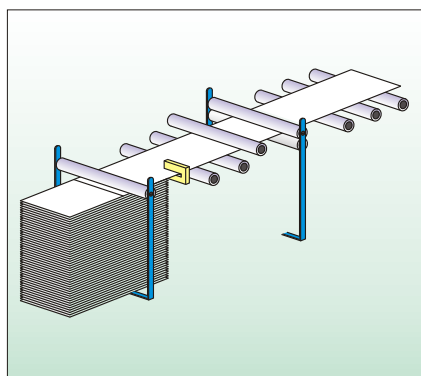
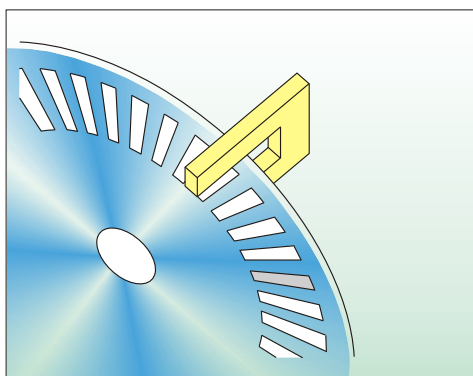
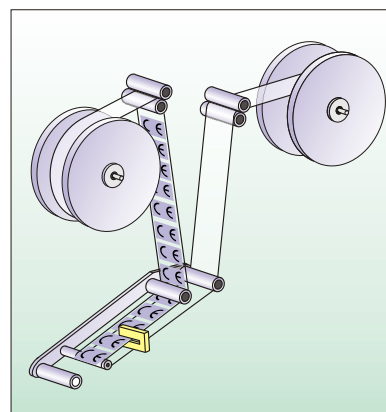
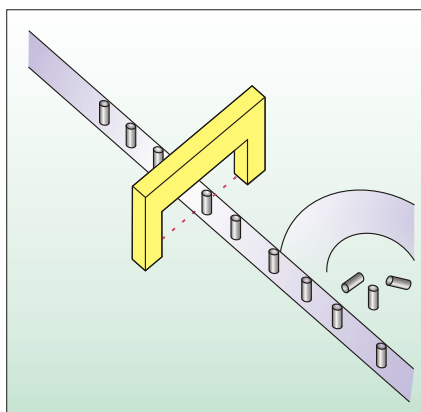
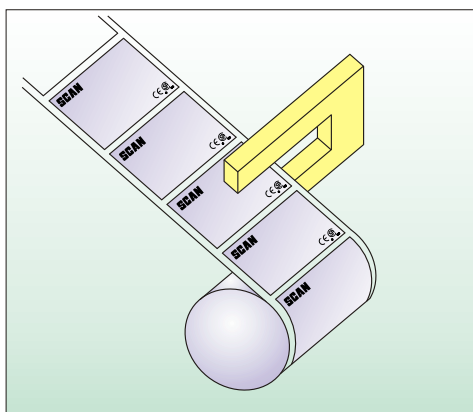
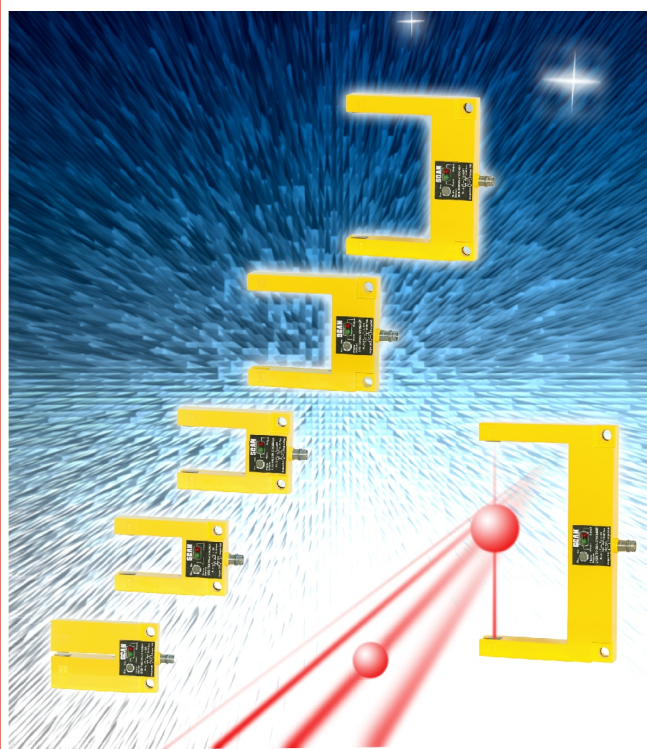


U SERIES

- Selection Guide.....F-01
- Sensors Type.....F-02....F-05
- Connection Diagram.....F-06



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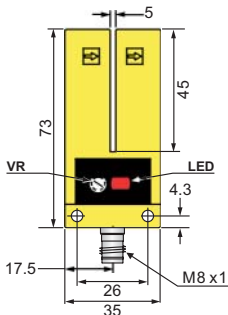
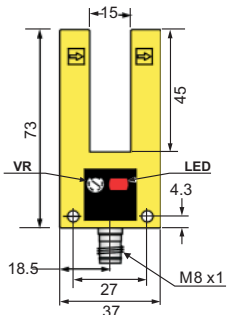
SLOT SELECTION GUIDE

U SERIES



Description

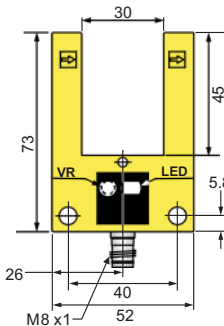
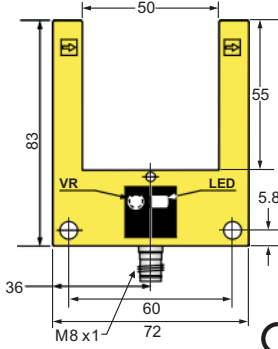
- Slot widths 2mm, 15mm, 30mm, 50mm, 80mm, 120mm, slot depths of up to 55mm
- High switching Frequency (1000Hz)
- Easy Adjustable sensitivity
- High resolution (0.3mm)
- High Repeatability (0.02mm)
- Rugged die-cast metal housing
- N.O./N.C. Selectable
- Red, infrared emitter light
- mode output connection selectable

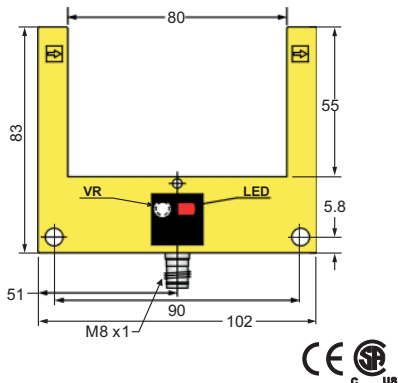
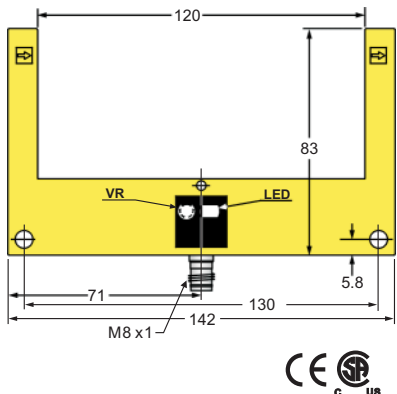
Sensors type	U05	U15
Slot spacing	5mm	15mm
Dimensions(mm)	 	 
PNP red light 660nm	U05-T0005P-CY6Q4UP	U15-T0015P-CY6Q4UP
PNP infrared light 880nm	U05-T0005P-CY9Q4UP	U15-T0015P-CY9Q4UP
NPN red light 660nm	U05-T0005N-CY6Q4UP	U15-T0015N-CY6Q4UP
NPN infrared light 880nm	U05-T0005N-CY9Q4UP	U15-T0015N-CY9Q4UP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

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SLOT SENSORS TYPE

U SERIES

Sensors type	U30	U50
Slot spacing	30mm	50mm
Dimensions(mm)		
PNP red light 660nm	U30-T0030P-CY6Q4UP	U50-T0050P-CY6Q4UP
PNP infrared light 880nm	U30-T0030P-CY9Q4UP	U50-T0050P-CY9Q4UP
NPN red light 660nm	U30-T0030N-CY6Q4UP	U50-T0050N-CY6Q4UP
NPN infrared light 880nm	U30-T0030N-CY9Q4UP	U50-T0050N-CY9Q4UP
Supply voltage	10...30 V DC	10...30 V DC
Voltage drop	< 1.5 V	< 1.5 V
Rated isolation voltage	75 V DC	75 V DC
Rated operational current	200 mA	200 mA
No-load supply current	≤ 35 mA	≤ 35 mA
Protected against polarity reversal	YES	YES
Short-circuit protected	YES	YES
On/Off delay	0.2 ms	0.2 ms
Frequency of operating cycles	500 Hz	500 Hz
Switching hysteresis	≤ 0.1 mm	≤ 0.1 mm
Resolution	0.3 mm	0.5 mm
Repeatability	0.02 mm	0.04 mm
Output function	Light on / Dark on	Light on / Dark on
Permissible ambient light	10 Klux	10 Klux
Function indicator	LED red	LED red
Ambient temperature range	-10...60° C	-10...60° C
Degree of protection	IP 65	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)	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	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	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	Die-cast
Connection (Note 1)	M8 4pin Connector	M8 4pin Connector
Weight	36 g	58 g
Photo		

Sensors type	U80	U120
Slot spacing	80mm	120mm
Dimensions(mm)		
PNP red light 660nm	U80-T0080P-CY6Q4UP	U120-T0120P-CY6Q4UP
PNP infrared light 880nm	U80-T0080P-CY9Q4UP	U120-T0120P-CY9Q4UP
NPN red light 660nm	U80-T0080N-CY6Q4UP	U120-T0120N-CY6Q4UP
NPN infrared light 880nm	U80-T0080N-CY9Q4UP	U120-T0120N-CY9Q4UP
Supply voltage	10...30 V DC	10...30 V DC
Voltage drop	< 1.5 V	< 1.5 V
Rated isolation voltage	75 V DC	75 V DC
Rated operational current	200 mA	200 mA
No-load supply current	≤ 35 mA	≤ 35 mA
Protected against polarity reversal	YES	YES
Short-circuit protected	YES	YES
On/Off delay	0.33 ms	0.33 ms
Frequency of operating cycles	500 Hz	500 Hz
Switching hysteresis	≤ 0.2 mm	≤ 0.2 mm
Resolution	0.5 mm	0.8 mm
Repeatability	0.06 mm	0.08 mm
Output function	Light on / Dark on	Light on / Dark on
Permissible ambient light	5 Klux	5 Klux
Function indicator	LED red	LED red
Ambient temperature range	-10...60° C	-10...60° C
Degree of protection	IP 65	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)	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	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	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	Die-cast
Connection (Note 1)	M8 4pin Connector	M8 4pin Connector
Weight	79 g	116 g
Photo		

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SLOT SENSORS TYPE

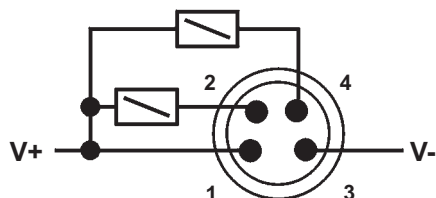


Sensors type	U180	U220
Slot spacing	180mm	220mm
Dimensions(mm)		
PNP red light 660nm	U180-T0180P-CY6Q4UP	U220-T0220P-CY6Q4UP
PNP infrared light 880nm	U180-T0180P-CY9Q4UP	U220-T0220P-CY9Q4UP
NPN red light 660nm	U180-T0180N-CY6Q4UP	U220-T0220N-CY6Q4UP
NPN infrared light 880nm	U180-T0180N-CY9Q4UP	U220-T0220N-CY9Q4UP
Supply voltage	10...30 V DC	10...30 V DC
Voltage drop	< 1.5 V	< 1.5 V
Rated isolation voltage	75 V DC	75 V DC
Rated operational current	200 mA	200 mA
No-load supply current	≤ 35 mA	≤ 35 mA
Protected against polarity reversal	YES	YES
Short-circuit protected	YES	YES
On/Off delay	0.33 ms	0.33 ms
Frequency of operating cycles	1500 Hz	1500 Hz
Switching hysteresis	≤ 0.2 mm	≤ 0.2 mm
Resolution	0.8 mm	1.0 mm
Repeatability	0.08 mm	0.10 mm
Output function	Light on / Dark on	Light on / Dark on
Permissible ambient light	5 Klux	5 Klux
Function indicator	LED red	LED red
Ambient temperature range	-10...60° C	-10...60° C
Degree of protection	IP 65	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)	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	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	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	Die-cast
Connection (Note 1)	M8 4pin Connector	M8 4pin Connector
Weight	190 g	220 g
Photo		

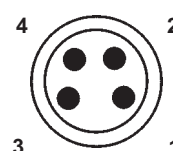
M8 DC 4-wire NPN-N.O.& N.C.



1. Connector face view



2. Female plug end view

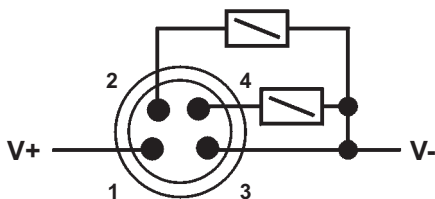


1-Brown
2-White
3-Blue
4-Black

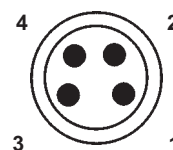
M8 DC 4-wire PNP-N.O.& N.C.



1. Connector face view



2. Female plug end view



1-Brown
2-White
3-Blue
4-Black