

GHK85T...

- Performance , without fear of poor working conditions ,can provide products with demisting function.
 - Rugged plastic housing ,mechanical protection class up to IP67
 - A wide temperature range : -40 至 55°C
 - Delay function : dual independent timer function (0-2s / 0-10s) 、 ON/OFF -delay,one-shot delay function.
 - Wiring terminals can be used for both versions of DC and AC/DC voltage.
 - Background suppression product is equipped with a distance of fine-tuning.
 - PNP/NPN bipolar output selectable light or dark operate ,SPDT Relay output.
- Detection diagrams : page 052
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 - Dimensions : page 055
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INQ-Light series , K85 Compact photoelectric sensor , supply voltage-depending on the model : 10-30 Vdc ; 24...240 Vac or 24...60 Vdc (SPDT Relay output)

Type ⁽¹⁾	Sensing mode	Range ⁽²⁾	Light emission	Output type	Connection ⁽⁴⁾	Light chart	ID NO.
GHK85T-E60M-NA6-RW	Emitter	60 m	IR 880 nm	————	4 pins M12 connector	———— / LP060	A183J100
GHK85T-E60M-NA6/SK2-RW				————	terminal	———— / LP060	A183J200
GHK85T-E60M-NA32/SK2-RW				————	terminal	———— / LP060	A183J201
GHK85T-R60M-E6PN6-FR	Receiver	60 m	————	NPN/PNP LO or DO	4 pins M12 connector	————	A1846100
GHK85T-R60M-E6PN6/SK2-FR				NPN/PNP LO or DO	terminal	————	A1846200
GHK85T-R60M-E2R32/SK2-FR				SPDT Relay	terminal	————	A1847200
GHK85T-BP22M-E6PN6-FRR	Polarized retroreflex	22 m , Based on: GHZD83-RT	RED 660 nm	NPN/PNP LO or DO	4 pins M12 connector	———— / LP061	A1826100
GHK85T-BP22M-E6PN6/SK2-FRR				NPN/PNP LO or DO	terminal	———— / LP061	A1826200
GHK85T-BP22M-E2R32/SK2-FRR				SPDT Relay	terminal	———— / LP061	A1827200
GHK85T-D5M-E6PN6-FRRW	Diffuse	5 m	IR 880 nm	NPN/PNP LO or DO	4 pins M12 connector	———— / LP062	A1806100
GHK85T-D5M-E6PN6/SK2-FRRW				NPN/PNP LO or DO	terminal	———— / LP062	A1806200
GHK85T-D5M-E2R32/SK2-FRRW				SPDT Relay	terminal	———— / LP062	A1807200
GHK85T-BY2.5M-E6PN6-FRRW	Background suppression	0.4...2.5 m	IR 880 nm	NPN/PNP LO or DO	4 pins M12 connector	———— / LP063	A1866100
GHK85T-BY2.5M-E6PN6/SK2-FRRW				NPN/PNP LO or DO	terminal	———— / LP063	A1866200
GHK85T-BY2.5M-E2R32/SK2-FRRW				SPDT Relay	terminal	———— / LP063	A1867200

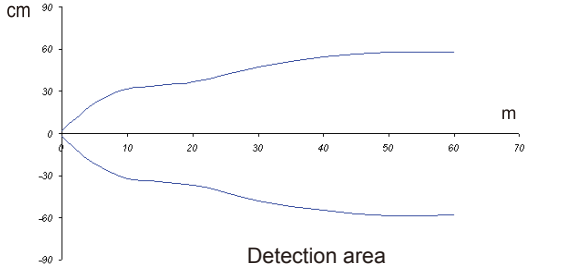
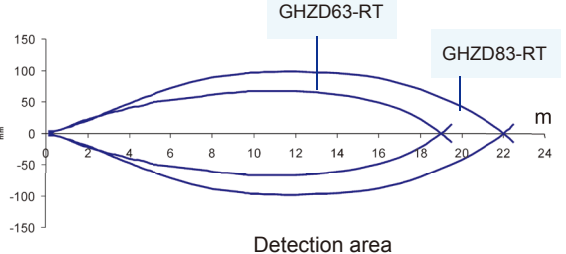
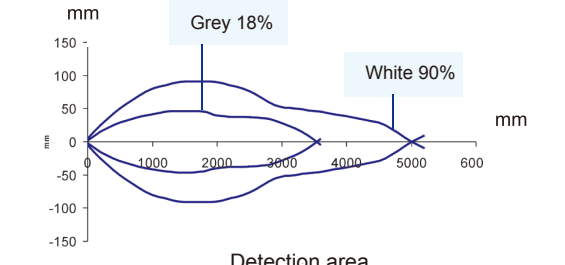
(1)Other detection mode,Please contact the product manager

(2)Retro-reflective sensing distance depends on the selected model reflecting plate.

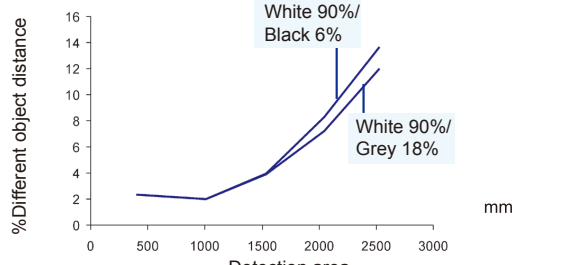
(3)

(4)The model with other connections,Please contact the product manager

Detection diagrams

<p>LP060 Through-beam K85</p>	<p>LP061 Polarized retroreflex K85</p>
 <p>Detection area</p>	 <p>Detection area</p>
<p>LP062 Diffuse K85</p>	
 <p>Detection area</p>	





Background suppression sensor breakpoint deviation

<p>LP063 Background suppression—0.4...2.5 m K50</p>	
 <p>Detection area</p>	

Technical data

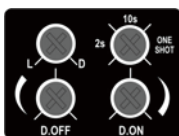
INQ-Light series , K85 Compact photoelectric sensor , supply voltage-depending on the model : 10-30 Vdc ; 24...240 Vac or 24...60 Vdc (SPDT Relay output)

<p>Supply voltage</p>	<p>SPDT Relay Output : 24...240 Vac/ 24...60 Vdc , ripple : ≤10% , Power Consumption ≤ 3 VA ; PNP/NPN bipolar(LO or DO) : 10...30 Vdc , ripple : ≤2 Vpp , Emitter : Power Consumption < 20mA , Receiver : Power Consumption < 25mA ; Others : Power Consumption < 30mA</p>
<p>Power supply protection</p>	<p>Reverse polarity protection , Receiver/sensor output of overload and short circuit protection .</p>
<p>External light interference</p>	<p>EN60947-5-2 compliant</p>
<p>Differences between white and black</p>	<p>polarized retroreflex , Diffuse 1 turn sensitivity trimmer , Background suppression : < 15% ;</p>
<p>Setting</p>	<p>Receiver , Polarized retroreflex , Diffuse : 1 turn sensitivity trimmer , Background suppression : More turns sensitivity trimmer ;</p>

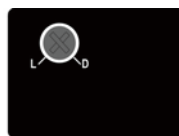
INQ-Light series , K85 Compact photoelectric sensor , supply voltage-dependng on the model : 10-30 Vdc ; 24...240 Vac or 24...60 Vdc (SPDT Relay output)	
Indicator	Emitter : Green LED power indicator ; Receiver , Others : Yellow LED output status indicator , Green LED power indicator ;
Output	Receiver , Polarized retroreflex , Diffuse , Background suppression : PNP/NPN bipolar(LO or DO) , SPDT Relay (250Vac, 30Vdc) ; DC Mode With ALARM OUTPUT
Output current /Contact capacity(SPDT)	Receiver , Others (10-30 Vdc) : 100 mA Receiver , Others (24...240 Vac or 24...60 Vdc Vac/dc) : 3A
Output voltage drop	Receiver , Others (10-30 Vdc) : ≤ 2 V
Testing Features —only for the DC Mode	Receiver , Others (10-30 Vdc) : Terminal 3 (TEST+) connected to +Vdc , test function is activated, can switch the output state of the sensor (On or Off); Terminal 3 (TEST+) connected to GND or vacant , the test function is inactive ;
Insulation resistance	Under 500Vdc voltage ,resistance between electronics and housing > 20 M Ω
Response time	24...240 Vac 或 24...60 Vdc Vac/dc Mode : ≤ 20 ms ; Polarized retroreflex , Diffuse (10-30 Vdc) : ≤ 1 ms ; Through-beam (10-30 Vdc) : ≤ 1 ms ; Background suppression (10-30 Vdc) : ≤ 2 ms ;
Switching frequency	24...240 Vac 或 24...60 Vdc Vac/dc Mode : 25 Hz ; Polarized retroreflex , Diffuse (10-30 Vdc) : 500 Hz ; Through-beam (10-30 Vdc) : 250 Hz ; Background suppression (10-30 Vdc) : 500 Hz ;
Run mode	All mode : 1 turn LO/DO trimmer Receiver , Polarized retroreflex : NO DO/NC LO ; Diffuse , Background suppression : NO LO/NC DO ;
Connections	DC Mode : terminal,conoection (cable diameter : 8mm-10mm) , or M12X1 4 pinsconnector Vac/dc Mode : terminal,conoection (cable diameter : 8mm-10mm) , Connector , via change the Connections of the terminal
Timing function See:"Timing function introduction"	All modes provide the products With Timing function(Model Suffix "T") , Timing Range adjustable Long Range : 0 ... 10 s (on/off Delay) ; Short Range : 0 ... 2 s (on/off Delay) ;
Mechanical protection	IP67 (IEC / EN60529) / NEMA 1 class (UL/c-UL) ; Terminal end glen head , EN50262 compliant
Housing material	PBT (30% Glass fiber reinforced)
Lens material	PC
operating temperature	-40 ... +55°C ;
Storage temperature	-40 ... +70°C ;
Insulating strength	Electronics and enclosure 1500Vac / 1minute
Vibration	Amplitude on each axis (X , Y , Z) direction is 0.5mm , frequency 10...55Hz (EN 60068-2-6 compliant)
Shock resistance	Each axis (X , Y , Z) can be tolerated 6 (30G) impact direction , Duration 11ms (EN 60068-2-27 compliant)
Certification	    II3DG

Timing Functions

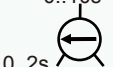
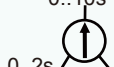
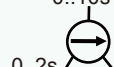
Select spinner length function is to select long time range、short range and one-shot timer function.



the Mode with Timing functions



the Mode no Timing functions

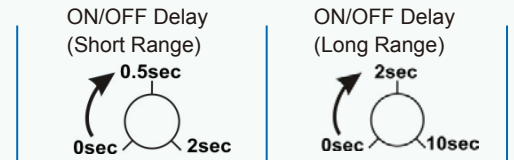
<p>Short Range 0..2s 0..10s</p>  <p>0..2s one shot 0..2s</p>	<p>Long Range 0..10s 0..10s</p>  <p>0..2s one shot 0..2s</p>	<p>one shot 0..2s 0..10s</p>  <p>0..2s one shot 0..2s</p>
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K85 series consists of four selectable timing functions:
One-shot, On Delay, Off Delay and Normal mode .

The operator length selection spinner when the timer function can be adjusted to four.
Timing is particularly suitable for application to modify the output signal pulse.

Run mode	Output status
Normal mode (Timing is off)	
One-shot mode (Limited to the range 0...2s short timing.)	
On/Off Delay	
On Delay	
Off Delay	

Short Range : , 0 ... 2s Adjustable time delay ;
Long Range , 0 ... 10s Adjustable time delay ; ;
One shot , ON Delay : 0 ... 2s Adjustable time delay , OFF Delay disabled

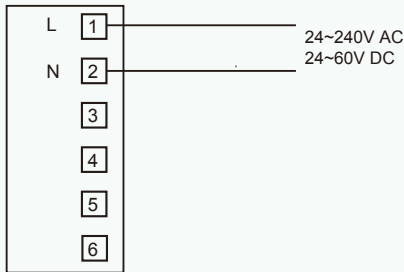


Connections

1. K85 Through-beam(DC、 Vac/dc) Emitter :

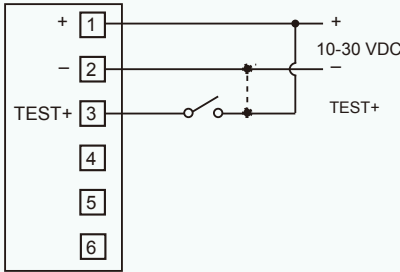
Vac/dc Mode

Terminal

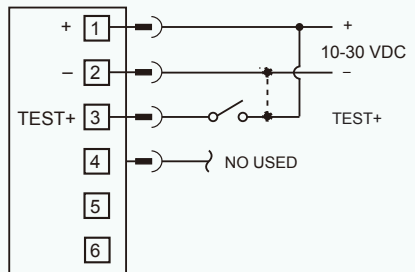


DC Mode

Terminal

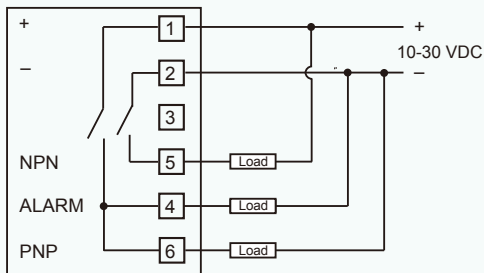


Connector

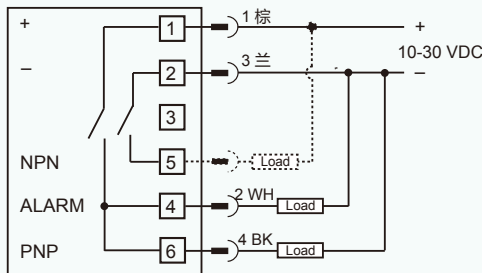


2. K85 NPN/PNP bipolar(LO or DO) :

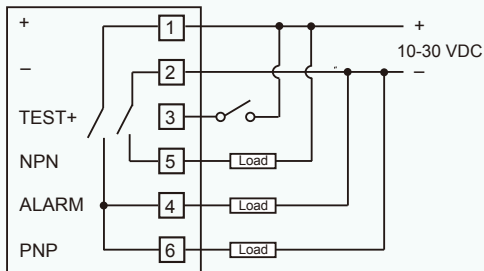
Receiver — terminal



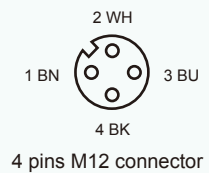
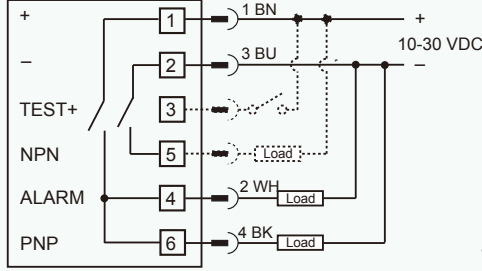
Receiver — connector



Others — terminal

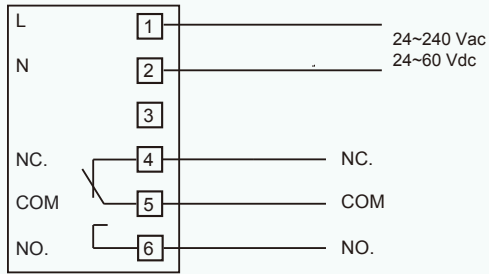


Others — connector



3. K85 SPDT Relay Output

Terminal



Dimensions

