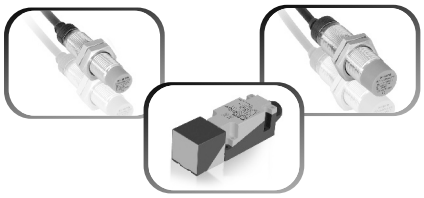
PUBANG

加长距离型电感式接近开关
Long Sensing Range Inductive Proximity Sensor

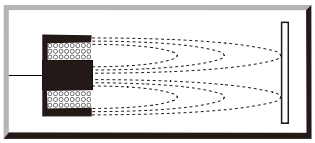


功能特点/ Features

- 具有短路保护、反极性保护、过载保护功能（DC）.
- Short-circuit protection, reversed polarity protection and overload protection (DC)
- 长寿命及高可靠性.
- Long life-span and high reliability
- 红色LED显示可以检查传感器的输出状态.
- Red LED indicator to check output status
- 检测距离加长，可满足不同工作环境要求.
- Extended sensing distance to meet different application needs

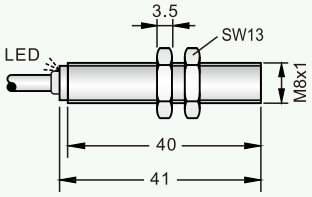
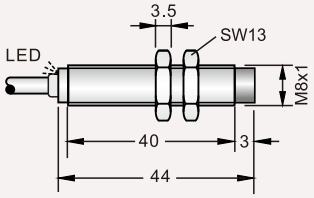


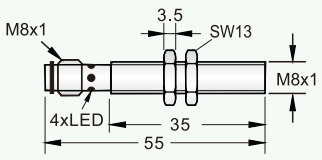
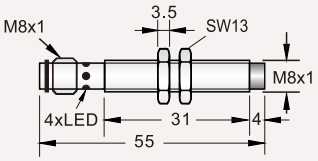
M8 系列(DC) M8 series –(DC) /E–01
M12 系列(DC) M12 series –(DC) /E–03
M12 系列(AC) M12 series –(AC) /E–07
M18 系列(DC) M18 series –(DC) /E–08
M18 系列(AC) M18 series –(AC) /E–11
M30 系列(DC) M30 series –(DC) /E–12
M30 系列(AC) M30 series –(AC) /E–14
BX系列(DC) BX series –(DC) /E–15
KE 系列(DC) KE series –(DC) /E–15
BX 系列(AC) BX series –(AC) /E–16
KE 系列(AC) KE series –(AC) /E–16



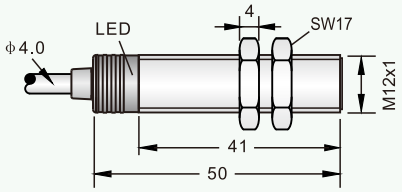
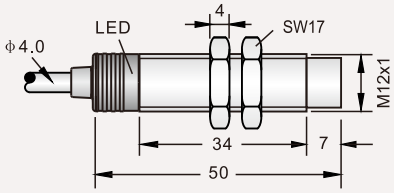
Long sensing distance
检测距离加长型

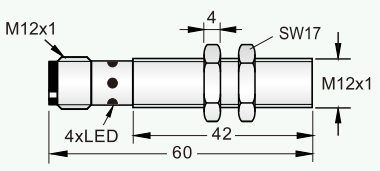
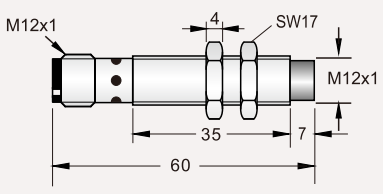
感应距离加长型接近开关
Long Sensing Range Inductive Proximity Sensor

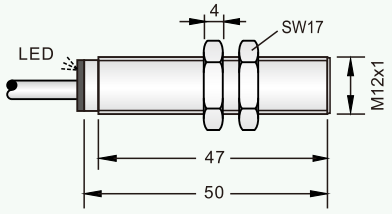
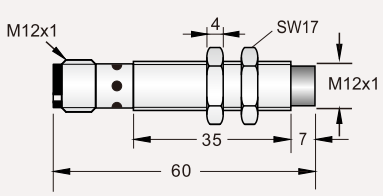
图 片 PICTURE	M8x1, L40	M8x1, L44
		
直流-3线/DC–3 wires NPN N.O.	IBT8-LS02NA-D3Y2 *01	IBT8-LN03NA-D3Y2 *01
直流-3线/DC–3 wires NPN N.C.	IBT8-LS02NB-D3Y2 *02	IBT8-LN03NB-D3Y2 *02
直流-3线/DC–3 wires PNP N.O.	IBT8-LS02PA-D3Y2 *03	IBT8-LN03PA-D3Y2 *03
直流-3线/DC–3 wires PNP N.C.	IBT8-LS02PB-D3Y2 *04	IBT8-LN03PB-D3Y2 *04
直流-2线/DC–2 wires N.O.	IBT8-LS02LA-D2Y2 *18	IBT8-LN03LA-D2Y2 *18
直流-2线/DC–2 wires N.C.	IBT8-LS02LB-D2Y2 *19	IBT8-LN03LB-D2Y2 *19
检测距离/ Rated sensing distance	2mm	3mm
安装方式/Mounting	埋入/shield	非埋入/non-shield
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.	
漏电流/Leakage current	3线式/3 wires : <0.01mA(2线式/2 wires: <0.8mA)	
设定距离/Setting distance	0...1.6mm	0...2.4mm
标准检出物体/Sensing target	铁/Iron 8x8x1mm	铁/Iron 9x9x1mm
工作频率/ Frequency	800Hz	700Hz
消耗电流/Consumption	≤15mA	
负载电流/Load current	200mA	
电压降/Voltage drop(V_p)	≤1.8V(2线式：负载电流100mA＜5V)/≤1.8V(2 wires: Load current 100mA＜5V)	
滞后/Hysteresis	1...15%	
重复精度/Repeatability	≤5%	
LED 显示/Display	红色/Red LED	
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection	
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)	
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times	
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours	
防护等级/Protection	IP67	
连接方式/Connection	电缆线2M，外径φ3.2mm/Cable: φ3.2mm 2M	
外壳材料/Housing material	黄铜镀镍/nickel-plated brass	
检测面材料/Sensing face material	PBT	
尺寸图 Dimensional drawing		
备 注/Remark	注 1： *01 ,*02 ,*03,*04...表示接线图序号,详见14...17页。	2：连接方式可选择插头式连接线(猪尾式)

	M8x1, L55		M8x1, L55	
图 片 PICTURE				
直流-3线/DC–3 wires NPN N.O.	IBT8-LS02NA-D3YV2	*27	IBT8-LN03NA-D3YV2	*27
直流-3线/DC–3 wires NPN N.C.	IBT8-LS02NB-D3YV2	*27	IBT8-LN03NB-D3YV2	*27
直流-3线/DC–3 wires PNP N.O.	IBT8-LS02PA-D3YV2	*28	IBT8-LN03PA-D3YV2	*28
直流-3线/DC–3 wires PNP N.C.	IBT8-LS02PB-D3YV2	*28	IBT8-LN03PB-D3YV2	*28
直流-2线/DC–2 wires N.O.	————		————	
直流-2线/DC–2 wires N.C.	————		————	
检测距离/ Rated sensing distance	2mm		3mm	
安装方式/Mounting	埋入/shield		非埋入/non-shield	
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.			
漏电流/Leakage current	<0.01mA			
设定距离/Setting distance	0...1.6mm		0...2.4mm	
标准检出物体/Sensing target	铁/Iron 8x8x1mm		铁/Iron 9x9x1mm	
工作频率/ Frequency	800Hz		700Hz	
消耗电流/Consumption	≤15mA			
负载电流/Load current	200mA			
电压降/Voltage drop(V_p)	≤1.8V			
滞后/Hysteresis	1...15%			
重复精度/Repeatability	≤5%			
LED 显示/Display	红色/Red LED			
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection			
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)			
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times			
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
防护等级/Protection	IP67			
连接方式/Connection	M8插座式连接，带LEDx4/M8 connector，LEDx4			
外壳材料/Housing material	黄铜镀镍/nickel-plated brass			
检测面材料/Sensing face material	PBT			
尺寸图 Dimensional drawing				
备 注/Remark	1: *27 ,*28-NO of wiring diagram (refers to page 14...17)			

感应距离加长型接近开关
Long Sensing Range Inductive Proximity Sensor

	M12x1, L50		M12x1, L50	
图 片 PICTURE				
直流-3线/DC–3 wires NPN N.O.	IBT12-LS04NA-D3Y2-1	*01	IBT12-LN06NA-D3Y2-1	*01
直流-3线/DC–3 wires NPN N.C.	IBT12-LS04NB-D3Y2-1	*02	IBT12-LN06NB-D3Y2-1	*02
直流-3线/DC–3 wires PNP N.O.	IBT12-LS04PA-D3Y2-1	*03	IBT12-LN06PA-D3Y2-1	*03
直流-3线/DC–3 wires PNP N.C.	IBT12-LS04PB-D3Y2-1	*04	IBT12-LN06PB-D3Y2-1	*04
直流-2线/DC–2 wires N.O.	IBT12-LS04LA-D2Y2-1	*18	IBT12-LN06LA-D2Y2-1	*18
直流-2线/DC–2 wires N.C.	IBT12-LS04LB-D2Y2-1	*19	IBT12-LN06LB-D2Y2-1	*19
检测距离/ Rated sensing distance	4mm		6mm	
安装方式/Mounting	埋入/shield		非埋入/non-shield	
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.			
漏电流/Leakage current	3线式/3 wires : <0.01mA(2线式/2 wires：<0.8mA)			
设定距离/Setting distance	0...3.2mm		0...4.8mm	
标准检出物体/Sensing target	铁/Iron 12x12x1mm		铁/Iron 18x18x1mm	
工作频率/ Frequency	3线式/3 wires : 400Hz(2线式/2 wires：200Hz)		500Hz	
消耗电流/Consumption	≤15mA			
负载电流/Load current	200mA			
电压降/Voltage drop(V_p)	≤1.8V(2线式：负载电流100mA＜5V)/≤1.8V(2 wires：Load current 100mA＜5V)			
滞后/Hysteresis	1...15%			
重复精度/Repeatability	≤5%			
LED 显示/Display	红色/Red LED			
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection			
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)			
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times			
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
防护等级/Protection	IP67			
连接方式/Connection	电缆线2M，外径φ4mm/Cable: φ4mm 2M			
外壳材料/Housing material	黄铜镀镍/nickel-plated brass			
检测面材料/Sensing face material	PBT			
尺寸图 Dimensional drawing				
备 注/Remark	注 1： *01 ,*02 ,*03,*04...表示接线图序号,详见14...17页。		2：连接方式可选择插头式连接线(猪尾式)	

	M12x1, L60		M12x1, L60	
图 片 PICTURE				
直流-3线/DC–3 wires NPN N.O.	IBT12-LS04NA-D4YV1	*29	IBT12-LN06NA-D4YV1	*29
直流-3线/DC–3 wires NPN N.C.	IBT12-LS04NB-D4YV1	*30	IBT12-LN06NB-D4YV1	*30
直流-3线/DC–3 wires PNP N.O.	IBT12-LS04PA-D4YV1	*31	IBT12-LN06PA-D4YV1	*31
直流-3线/DC–3 wires PNP N.C.	IBT12-LS04PB-D4YV1	*32	IBT12-LN06PB-D4YV1	*32
直流-2线/DC–2 wires N.O.	IBT12-LS04LA-D4YV1	*37	IBT12-LN06LA-D4YV1	*37
直流-2线/DC–2 wires N.C.	IBT12-LS04LB-D4YV1	*38	IBT12-LN06LB-D4YV1	*38
检测距离/ Rated sensing distance	4mm		6mm	
安装方式/Mounting	埋入/shield		非埋入/non-shield	
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.			
漏电流/Leakage current	3线式/3 wires : <0.01mA(2线式/2 wires: <0.8mA)			
设定距离/Setting distance	0...3.2mm		0...4.8mm	
标准检出物体/Sensing target	铁/Iron 12x12x1mm		铁/Iron 18x18x1mm	
工作频率/ Frequency	600Hz		500Hz	
消耗电流/Consumption	≤15mA			
负载电流/Load current	200mA			
电压降/Voltage drop(V_p)	≤1.8V(2线式：负载电流100mA＜5V)/≤1.8V(2 wires: Load current 100mA＜5V)			
滞后/Hysteresis	1...15%			
重复精度/Repeatability	≤5%			
LED 显示/Display	红色/Red LED			
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection			
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)			
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times			
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
防护等级/Protection	IP67			
连接方式/Connection	M12插座式连接，带LEDx4/M12 connector，LEDx4			
外壳材料/Housing material	黄铜镀镍/nickel-plated brass			
检测面材料/Sensing face material	PBT			
尺寸图 Dimensional drawing				
备 注/Remark	1: *29 ,*30 ,*31,*32-NO of wiring diagram (refers to page 14...17)			

	M12x1, L50	M12x1, L60
图 片 PICTURE		
直流-2线/DC–2 wires N.O.	IBT12-LN07LA-D2Y2 *37	IBT12-LN07LA-D4YV1 *37
直流-2线/DC–2 wires N.C.	IBT12-LN07LB-D2Y2 *38	IBT12-LN07LB-D4YV1 *38
检测距离/ Rated sensing distance	7mm	7mm
安装方式/Mounting	非埋入/non-shield	
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.	
漏电流/Leakage current	3线式/3 wires : <0.01mA(2线式/2 wires: <0.8mA)	
设定距离/Setting distance	0...5.6mm	
标准检出物体/Sensing target	铁/Iron 21x21x1mm	
工作频率/ Frequency	400Hz	
消耗电流/Consumption	≤15mA	
负载电流/Load current	200mA	
电压降/Voltage drop(V_p)	≤1.8V(2线式：负载电流100mA＜5V)/≤1.8V(2 wires: Load current 100mA＜5V)	
滞后/Hysteresis	1...15%	
重复精度/ Repeatability	≤5%	
LED 显示/Display	红色/Red LED	
保护/ Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection	
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)	
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times	
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours	
防护等级/Protection	IP67	
连接方式/Connection	电缆线2M，外径φ4mm/Cable: φ4mm 2M	M12插座式连接，带LEDx4/M12 connector，LEDx4
外壳材料/Housing material	黄铜镀镍/nickel-plated brass	
检测面材料/Sensing face material	PBT	
尺寸图 Dimensional drawing		
备 注/Remark	注 1： *37 ,*38...表示接线图序号,详见14...17页。	

感应距离加长型接近开关
Long Sensing Range Inductive Proximity Sensor

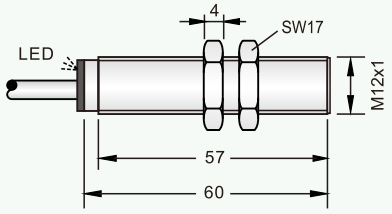
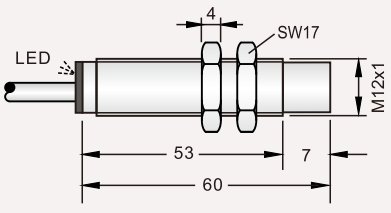
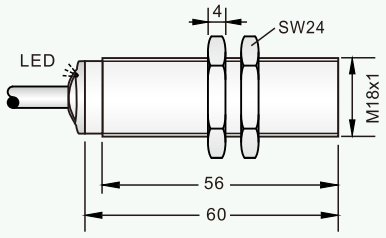
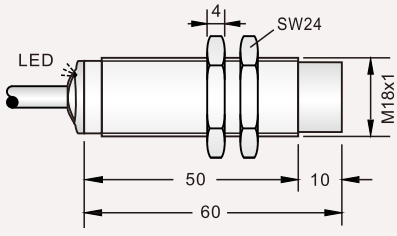
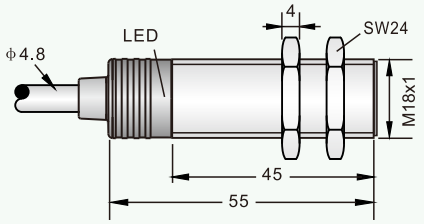
	M12x1, L60		M12x1, L60	
图 片 PICTURE				
交流-2线/AC–2 wires N.O.	IBT12-LS04AA-A2N2	*20	IBT12-LN06AA-A2N2	*20
交流-2线/AC–2 wires N.C.	IBT12-LS04AB-A2N2	*21	IBT12-LN06AB-A2N2	*21
检测距离/ Rated sensing distance	4mm		6mm	
安装方式/Mounting	埋入/shield		非埋入/non-shield	
工作电压/Supply voltage	20...250V AC(50/60Hz)			
漏电流/Leakage current	≤1.7mA			
设定距离/Setting distance	0...3.2mm		0...4.8mm	
标准检出物体/Sensing target	铁/Iron 12x12x1mm		铁/Iron 18x18x1mm	
工作频率/ Frequency	20Hz			
消耗电流/Consumption	———			
负载电流/Load current	200mA			
电压降/Voltage drop(V_p)	≤8V			
滞后/Hysteresis	3...15%			
重复精度/Repeatability	≤5%			
LED 显示/Display	红色/Red LED			
保护/Protection Circuit	———			
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)			
抗冲击/Anti–impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times			
抗震动/Anti–vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
防护等级/Protection	IP67			
连接方式/Connection	电缆线2M，外径φ4mm/Cable: φ4mm 2M			
外壳材料/Housing material	黄铜镀镍/nickel-plated brass			
检测面材料/Sensing face material	PBT			
尺寸图 Dimensional drawing				
备 注/Remark	1: *20 ,*21-NO of wiring diagram (refers to page 14...17)		2: Pigtail connection is also available	

图 片 PICTURE	M18x1, L60(nickel-plated brass) M18x1, L65(PBT)			M18x1, L60(nickel-plated brass) M18x1, L65(PBT)		
						
直流-3线/DC–3 wires NPN N.O.	IBT18-LS08NA-D3Y2	IPT18-LS08NA-D3Y2	*01	IBT18-LN12NA-D3Y2	IPT18-LN12NA-D3Y2	*01
直流-3线/DC–3 wires NPN N.C.	IBT18-LS08NB-D3Y2	IPT18-LS08NB-D3Y2	*02	IBT18-LN12NB-D3Y2	IPT18-LN12NB-D3Y2	*02
直流-3线/DC–3 wires PNP N.O.	IBT18-LS08PA-D3Y2	IPT18-LS08PA-D3Y2	*03	IBT18-LN12PA-D3Y2	IPT18-LN12PA-D3Y2	*03
直流-3线/DC–3 wires PNP N.C.	IBT18-LS08PB-D3Y2	IPT18-LS08PB-D3Y2	*04	IBT18-LN12PB-D3Y2	IPT18-LN12PB-D3Y2	*04
直流-2线/DC–2 wires N.O.	IBT18-LS08LA-D2Y2	IPT18-LS08LA-D2Y2	*18	IBT18-LN12LA-D2Y2	IPT18-LN12LA-D2Y2	*18
直流-2线/DC–2 wires N.C.	IBT18-LS08LB-D2Y2	IPT18-LS08LB-D2Y2	*19	IBT18-LN12LB-D2Y2	IPT18-LN12LB-D2Y2	*19
检测距离/ Rated sensing distance	8mm			12mm		
安装方式/Mounting	埋入/shield			非埋入/non-shield		
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.					
漏电流/Leakage current	3线式/3 wires : <0.01mA(2线式/2 wires: <0.8mA)					
设定距离/Setting distance	0...6.4mm			0...9.6mm		
标准检出物体/Sensing target	铁/Iron 24x24x1mm			铁/Iron 36x36x1mm		
工作频率/ Frequency	400Hz			350Hz		
消耗电流/Consumption	≤15mA					
负载电流/Load current	200mA					
电压降/Voltage drop(V_p)	≤1.8V(2线式：负载电流100mA＜5V)/≤1.8V(2 wires: Load current 100mA＜5V)					
滞后/Hysteresis	1...15%					
重复精度/Repeatability	≤5%					
LED 显示/Display	红色/Red LED					
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection					
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)					
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times					
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours					
防护等级/Protection	IP67					
连接方式/Connection	电缆线2M，外径φ4.8mm/Cable: φ4.8mm 2M					
外壳材料/Housing material	黄铜镀镍/nickel-plated brass	PBT		黄铜镀镍/nickel-plated brass	PBT	
检测面材料/Sensing face material	PBT					
尺寸图 Dimensional drawing						
备 注/Remark	注 1： *01 ,*02 ,*03,*04...表示接线图序号,详见14...17页。			2：连接方式可选择插头式连接线(猪尾式)		

感应距离加长型接近开关
Long Sensing Range Inductive Proximity Sensor

图 片 PICTURE	M18x1, L55 	
直流-3线/DC–3 wires NPN N.O.	IBT18-LS08NA-D3Y2-1 * 01	
直流-3线/DC–3 wires NPN N.C.	IBT18-LS08NB-D3Y2-1 * 02	
直流-3线/DC–3 wires PNP N.O.	IBT18-LS08PA-D3Y2-1 * 03	
直流-3线/DC–3 wires PNP N.C.	IBT18-LS08PB-D3Y2-1 * 04	
直流-2线/DC–2 wires N.O.		
直流-2线/DC–2 wires N.C.		
检测距离/ Rated sensing distance	8mm	
安装方式/Mounting	埋入/shield	
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.	
漏电流/Leakage current	<0.01mA	
设定距离/Setting distance	0...6.4mm	
标准检出物体/Sensing target	铁/Iron 24x24x1mm	
工作频率/ Frequency	200Hz	
消耗电流/Consumption	≤15mA	
负载电流/Load current	200mA	
电压降/Voltage drop(V_p)	≤1.8V	
滞后/Hysteresis	1...15%	
重复精度/Repeatability	≤2%	
LED 显示/Display	红色/Red LED	
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection	
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)	
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times	
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours	
防护等级/Protection	IP67	
连接方式/Connection	电缆线2M，外径φ4.8mm/Cable: φ4.8mm 2M	
外壳材料/Housing material	黄铜镀镍/nickel-plated brass	
检测面材料/Sensing face material	PBT	

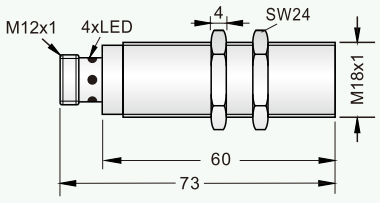
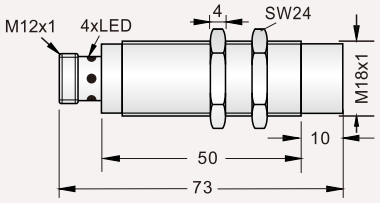
尺寸图
Dimensional drawing

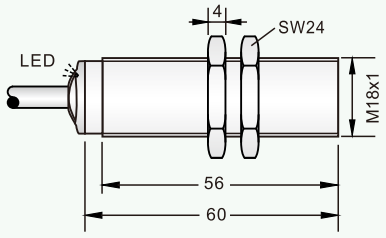
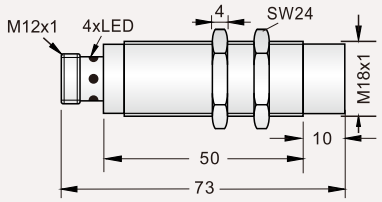


备 注/Remark

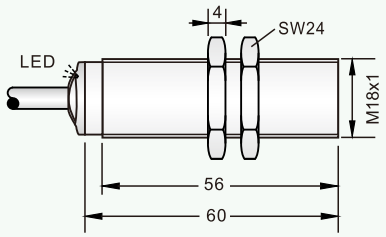
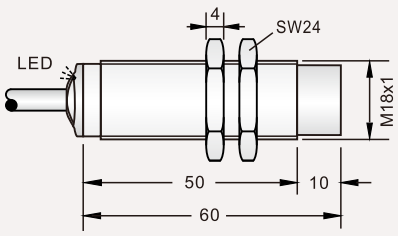
注 1： *01 ,*02 ,*03,*04...表示接线图序号,详见14...17页。 2：连接方式可选择插头式连接线(猪尾式)

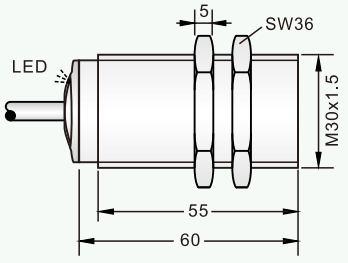
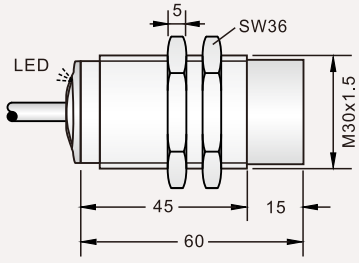
感应距离加长型接近开关
Long Sensing Range Inductive Proximity Sensor

图 片 PICTURE	M18x1, L73	M18x1, L73
		
直流-3线/DC–3 wires NPN N.O.	IBT18-LS08NA-D4YV1 *29	IBT18-LN12NA-D4YV1 *29
直流-3线/DC–3 wires NPN N.C.	IBT18-LS08NB-D4YV1 *30	IBT18-LN12NB-D4YV1 *30
直流-3线/DC–3 wires PNP N.O.	IBT18-LS08PA-D4YV1 *31	IBT18-LN12PA-D4YV1 *31
直流-3线/DC–3 wires PNP N.C.	IBT18-LS08PB-D4YV1 *32	IBT18-LN12PB-D4YV1 *32
直流-2线/DC–2 wires N.O.	IBT18-LS08LA-D4YV1 *37	IBT18-LN12LA-D4YV1 *37
直流-2线/DC–2 wires N.C.	IBT18-LS08LB-D4YV1 *38	IBT18-LN12LB-D4YV1 *38
检测距离/ Rated sensing distance	8mm	12mm
安装方式/Mounting	埋入/shield	非埋入/non-shield
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.	
漏电流/Leakage current	3线式/3 wires : <0.01mA(2线式/2 wires: <0.8mA)	
设定距离/Setting distance	0...6.4mm	0...9.6mm
标准检出物体/Sensing target	铁/Iron 24x24x1mm	铁/Iron 36x36x1mm
工作频率/ Frequency	400Hz	350Hz
消耗电流/Consumption	≤15mA	
负载电流/Load current	200mA	
电压降/Voltage drop(V_p)	≤1.8V(2线式：负载电流100mA＜5V)/≤1.8V(2 wires: Load current 100mA＜5V)	
滞后/Hysteresis	1...15%	
重复精度/Repeatability	≤5%	
LED 显示/Display	红色/Red LED	
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection	
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)	
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times	
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours	
防护等级/Protection	IP67	
连接方式/Connection	M12插座式连接，带LEDx4/M12 connector，LEDx4	
外壳材料/Housing material	黄铜镀镍/nickel-plated brass	
检测面材料/Sensing face material	PBT	
尺寸图 Dimensional drawing		
备 注/Remark	1: *29 ,*30 ,*31,*32-NO of wiring diagram (refers to page 14...17)	

	M18x1, L60(nickel-plated brass)		M18x1, L73	
图 片 PICTURE				
直流-3线/DC–3 wires NPN N.O.	IBT18-LN15NA-D3Y2	*01	IBT18-LN15NA-D4YV1	*01
直流-3线/DC–3 wires PNP N.O.	IBT18-LN15PA-D3Y2	*03	IBT18-LN15PA-D4YV1	*03
检测距离/ Rated sensing distance	15mm			
安装方式/Mounting	非埋入/non-shield			
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.			
漏电流/Leakage current	3线式/3 wires : <0.01mA			
设定距离/Setting distance	0...12mm			
标准检出物体/Sensing target	铁/Iron 45x45x1mm			
工作频率/Frequency	300Hz			
消耗电流/Consumption	≤15mA			
负载电流/Load current	200mA			
电压降/Voltage drop(V_p)	≤1.8V			
滞后/Hysteresis	1...15%			
重复精度/Repeatability	≤5%			
LED 显示/Display	红色/Red LED			
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection			
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)			
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times			
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
防护等级/Protection	IP67			
连接方式/Connection	电缆线2M，外径φ4mm/Cable: φ4mm 2M		M12插座式连接，带LEDx4/M12 connector，LEDx4	
外壳材料/Housing material	黄铜镀镍/nickel-plated brass			
检测面材料/Sensing face material	PBT			
尺寸图 Dimensional drawing				
备 注/Remark	1: *01,*03-NO of wiring diagram (refers to page 14...17)			

感应距离加长型接近开关
Long Sensing Range Inductive Proximity Sensor

	M18x1, L60(nickel-plated brass) M18x1, L65(PBT)			M18x1, L60(nickel-plated brass) M18x1, L65(PBT)		
图 片 PICTURE						
交流-2线/AC–2 wires N.O.	IBT18-LS08AA-A2N2	IPT18-LS08AA-A2N2	*20	IBT18-LN12AA-A2N2	IPT18-LN12AA-A2N2	*20
交流-2线/AC–2 wires N.C.	IBT18-LS08AB-A2N2	IPT18-LS08AB-A2N2	*21	IBT18-LN12AB-A2N2	IPT18-LN12AB-A2N2	*21
检测距离/ Rated sensing distance	8mm			12mm		
安装方式/Mounting	埋入/shield			非埋入/non-shield		
工作电压/Supply voltage	20...250V AC(50/60Hz)					
漏电流/Leakage current	≤1.7mA					
设定距离/Setting distance	0...6.4mm			0...9.6mm		
标准检出物体/Sensing target	铁/Iron 24x24x1mm			铁/Iron 36x36x1mm		
工作频率/Frequency	20Hz					
消耗电流/Consumption	———					
负载电流/Load current	200mA					
电压降/Voltage drop(V_p)	≤8V					
滞后/Hysteresis	3...15%					
重复精度/Repeatability	≤5%					
LED 显示/Display	红色/Red LED					
保护/Protection Circuit	———					
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)					
抗冲击/Anti–impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times					
抗震动/Anti–vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours					
防护等级/Protection	IP67					
连接方式/Connection	电缆线2M，外径φ4.8mm/Cable: φ4.8mm 2M					
外壳材料/Housing material	黄铜镀镍/nickel-plated brass	PBT		黄铜镀镍/nickel-plated brass	PBT	
检测面材料/Sensing face material	PBT					
尺寸图 Dimensional drawing						
备 注/Remark	注 1： *20 ,*21...表示接线图序号,详见14...17页。			2：连接方式可选择插头式连接线(猪尾式)		

	M30x1.5, L60(nickel-plated brass) M30x1.5, L72(PBT)			M30x1.5, L60(nickel-plated brass) M30x1.5, L72(PBT)		
图 片 PICTURE						
直流-3线/DC–3 wires NPN N.O.	IBT30-LS15NA-D3Y2	IPT30-LS15NA-D3Y2	*01	IBT30-LN25NA-D3Y2	IPT30-LN25NA-D3Y2	*01
直流-3线/DC–3 wires NPN N.C.	IBT30-LS15NB-D3Y2	IPT30-LS15NB-D3Y2	*02	IBT30-LN25NB-D3Y2	IPT30-LN25NB-D3Y2	*02
直流-3线/DC–3 wires PNP N.O.	IBT30-LS15PA-D3Y2	IPT30-LS15PA-D3Y2	*03	IBT30-LN25PA-D3Y2	IPT30-LN25PA-D3Y2	*03
直流-3线/DC–3 wires PNP N.C.	IBT30-LS15PB-D3Y2	IPT30-LS15PB-D3Y2	*04	IBT30-LN25PB-D3Y2	IPT30-LN25PB-D3Y2	*04
直流-2线/DC–2 wires N.O.	IBT30-LS15LA-D2Y2	IPT30-LS15LA-D2Y2	*18	IBT30-LN25LA-D2Y2	IPT30-LN25LA-D2Y2	*18
直流-2线/DC–2 wires N.C.	IBT30-LS15LB-D2Y2	IPT30-LS15LB-D2Y2	*19	IBT30-LN25LB-D2Y2	IPT30-LN25LB-D2Y2	*19
检测距离/ Rated sensing distance	15mm			25mm		
安装方式/Mounting	埋入/shield			非埋入/non-shield		
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.					
漏电流/Leakage current	3线式/3 wires : <0.01mA(2线式/2 wires: <0.8mA)					
设定距离/Setting distance	0...12mm			0...20mm		
标准检出物体/Sensing target	铁/Iron 45x45x1mm			铁/Iron 75x75x1mm		
工作频率/ Frequency	300Hz			200Hz		
消耗电流/Consumption	≤15mA					
负载电流/Load current	200mA					
电压降/Voltage drop(V_p)	≤1.8V(2线式：负载电流100mA＜5V)/≤1.8V(2 wires: Load current 100mA＜5V)					
滞后/Hysteresis	1...15%					
重复精度/Repeatability	≤5%					
LED 显示/Display	红色/Red LED					
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection					
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)					
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times					
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours					
防护等级/Protection	IP67					
连接方式/Connection	电缆线2M，外径φ4.8mm/Cable: φ4.8mm 2M					
外壳材料/Housing material	黄铜镀镍/nickel-plated brass	PBT		黄铜镀镍/nickel-plated brass	PBT	
检测面材料/Sensing face material	PBT					
尺寸图 Dimensional drawing						
备 注/Remark	1: *01 ,*02 ,*03,*04-NO of wiring diagram (refers to page 14...17)			2: Pigtail connection is also available		

感应距离加长型接近开关
Long Sensing Range Inductive Proximity Sensor

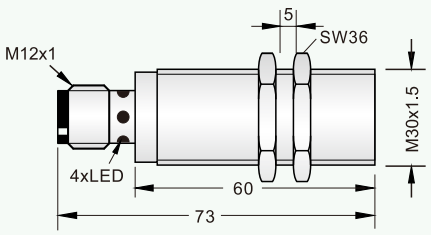
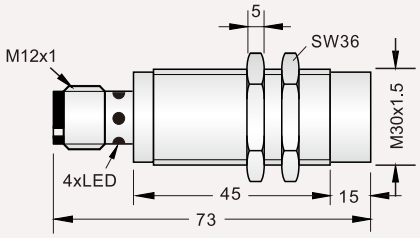
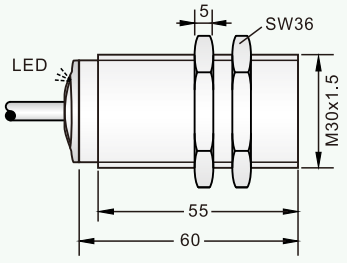
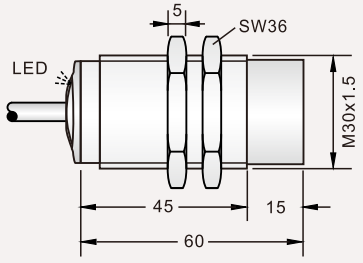
图 片 PICTURE	M30x1.5, L73	M30x1.5, L73
		
直流-3线/DC–3 wires NPN N.O.	IBT30-LS15NA-D4YV1 *29	IBT30-LN25NA-D4YV1 *29
直流-3线/DC–3 wires NPN N.C.	IBT30-LS15NB-D4YV1 *30	IBT30-LN25NB-D4YV1 *30
直流-3线/DC–3 wires PNP N.O.	IBT30-LS15PA-D4YV1 *31	IBT30-LN25PA-D4YV1 *31
直流-3线/DC–3 wires PNP N.C.	IBT30-LS15PB-D4YV1 *32	IBT30-LN25PB-D4YV1 *32
直流-2线/DC–2 wires N.O.	IBT30-LS15LA-D4YV1 *37	IBT30-LN25LA-D4YV1 *37
直流-2线/DC–2 wires N.C.	IBT30-LS15LB-D4YV1 *38	IBT30-LN25LB-D4YV1 *38
检测距离/ Rated sensing distance	15mm	25mm
安装方式/Mounting	埋入/shield	非埋入/non-shield
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.	
漏电流/Leakage current	3线式/3 wires : <0.01mA(2线式/2 wires：<0.8mA)	
设定距离/Setting distance	0...12mm	0...20mm
标准检出物体/Sensing target	铁/Iron 45x45x1mm	铁/Iron 75x75x1mm
工作频率/Frequency	300Hz	200Hz
消耗电流/Consumption	≤15mA	
负载电流/Load current	200mA	
电压降/Voltage drop(V_p)	≤1.8V(2线式：负载电流100mA＜5V)/≤1.8V(2 wires：Load current 100mA＜5V)	
滞后/Hysteresis	1...15%	
重复精度/Repeatability	≤5%	
LED 显示/Display	红色/Red LED	
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection	
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)	
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times	
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours	
防护等级/Protection	IP67	
连接方式/Connection	M12插座式连接，带LEDx4/M12 connector，LEDx4	
外壳材料/Housing material	黄铜镀镍/nickel-plated brass	
检测面材料/Sensing face material	PBT	
尺寸图 Dimensional drawing		
备 注/Remark	注 1： *29 ,*30 ,*31,*32...表示接线图序号,详见14...17页。	

图 片 PICTURE	M30x1.5, L60(nickel-plated brass) M30x1.5, L72(PBT)			M30x1.5, L60(nickel-plated brass) M30x1.5, L72(PBT)		
						
交流-2线/AC–2 wires N.O.	IBT30-LS15AA-A2N2	IPT30-LS15AA-A2N2	*20	IBT30-LN25AA-A2N2	IPT30-LN25AA-A2N2	*20
交流-2线/AC–2 wires N.C.	IBT30-LS15AB-A2N2	IPT30-LS15AB-A2N2	*21	IBT30-LN25AB-A2N2	IPT30-LN25AB-A2N2	*21
检测距离/Rated sensing distance	15mm			25mm		
安装方式/Mounting	埋入/shield			非埋入/non-shield		
工作电压/Supply voltage	20...250V AC(50/60Hz)					
漏电流/Leakage current	≤1.7mA					
设定距离/Setting distance	0...12mm			0...20mm		
标准检出物体/Sensing target	铁/Iron 45x45x1mm			铁/Iron 75x75x1mm		
工作频率/Frequency	20Hz					
消耗电流/Consumption	———					
负载电流/Load current	200mA					
电压降/Voltage drop(V_p)	≤8V					
滞后/Hysteresis	3...15%					
重复精度/Repeatability	≤5%					
LED 显示/Display	红色/Red LED					
保护/Protection Circuit	———					
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)					
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times					
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours					
防护等级/Protection	IP67					
连接方式/Connection	电缆线2M，外径φ4.8mm/Cable: φ4.8mm 2M					
外壳材料/Housing material	黄铜镀镍/nickel-plated brass	PBT		黄铜镀镍/nickel-plated brass	PBT	
检测面材料/Sensing face material	PBT					
尺寸图 Dimensional drawing						
备 注/Remark	1: *20 ,*21-NO of wiring diagram (refers to page 14...17)			2: Pigtail connection is also available		

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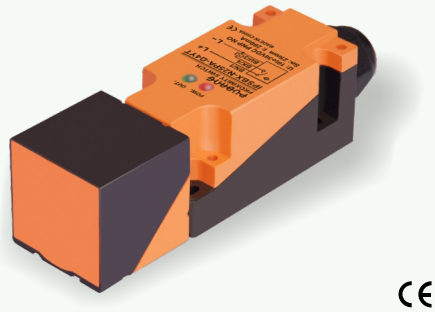
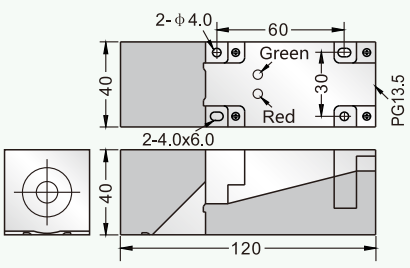
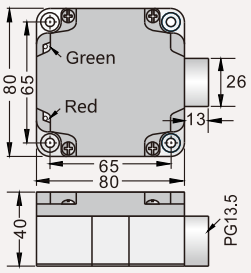
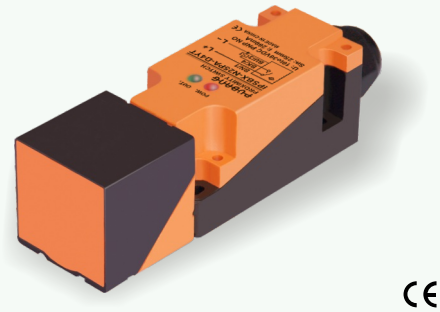
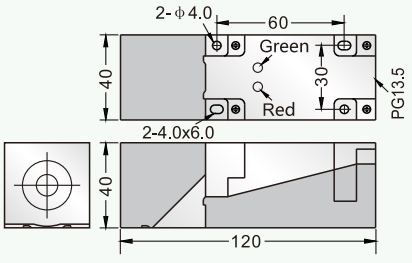
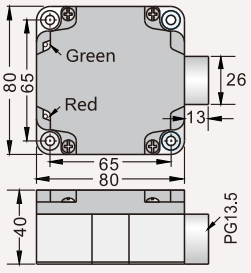
Long Sensing Range Inductive Proximity Sensor

图 片 PICTURE	W40xH40xL120	W80xH40xL80
		
直流-3线/DC–3 wires NPN N.O.	IPSBX-LN30NA-D4YT *01	IPSKE-LN60NA-D4YT *01
直流-3线/DC–3 wires NPN N.C.	IPSBX-LN30NB-D4YT *02	IPSKE-LN60NB-D4YT *02
直流-4线/DC–4 wires NPN N.O.+N.C.	IPSBX-LN30NC-D4YT *10	IPSKE-LN60NC-D4YT *10
直流-3线/DC–3 wires PNP N.O.	IPSBX-LN30PA-D4YT *03	IPSKE-LN60PA-D4YT *03
直流-3线/DC–3 wires PNP N.C.	IPSBX-LN30PB-D4YT *04	IPSKE-LN60PB-D4YT *04
直流-4线/DC–4 wires PNP N.O.+N.C.	IPSBX-LN30PC-D4YT *11	IPSKE-LN60PC-D4YT *11
直流-2线/DC–2 wires N.O.	IPSBX-LN30LA-D4YT *18	IPSKE-LN60LA-D4YT *18
直流-2线/DC–2 wires N.C.	IPSBX-LN30LB-D4YT *19	IPSKE-LN60LB-D4YT *19
检测距离/ Rated sensing distance	30mm	60mm
安装方式/Mounting	非埋入/non-shield	
工作电压/Supply voltage	DC12...24V (10...30V DC) 允许波动10%以下/ripple(p-p):10% max.	
漏电流/Leakage current	3线式/3 wires : <0.01mA(2线式/2 wires：<0.8mA)	
设定距离/Setting distance	0...24mm	0...48mm
标准检出物体/Sensing target	铁/Iron 90x90x1mm	铁/Iron 180x180x1mm
工作频率/ Frequency	150Hz	80Hz
消耗电流/Consumption	≤15mA	
负载电流/Load current	200mA	
电压降/Voltage drop(V_p)	≤1.8V(2线式：负载电流100mA＜5V)/≤1.8V(2 wires：Load current 100mA＜5V)	
滞后/Hysteresis	1...15%	
重复精度/Repeatability	≤5%	
LED 显示/Display	电源指示灯：红色LED；输出指示灯：绿色LED/Power: Red LED; Operation: Green LED	
保护/Protection Circuit	短路保护、反极性保护、过载保护/Short circuit protection, reversed polarity protection and overload protection	
工作温度/Operating temperature	-25...+70°C（未结露状态）/ -25...+70°C(no condensation)	
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z、方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times	
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z、方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours	
防护等级/Protection	IP66	
连接方式/Connection	端子连接/Terminal connection	
外壳材料/Housing material	PBT	
检测面材料/Sensing face material	PBT	
尺寸图 Dimensional drawing		
备 注/Remark	注 1： *01 ,*02 ,*03,*04...表示接线图序号,详见14...17页。	

	W40xH40xL120	W80xH40xL80
图 片 PICTURE		
交流-2线/AC–2 wires N.O.	IPSBX-LN30AA-A4NT *20	IPSKE-LN60AA-A4NT *20
交流-2线/AC–2 wires N.C.	IPSBX-LN30AB-A4NT *21	IPSKE-LN60AB-A4NT *21
检测距离/ Rated sensing distance	30mm	60mm
安装方式/Mounting	非埋入/non-shield	
工作电压/Supply voltage	20...250V AC(50/60Hz)	
漏电流/Leakage current	≤1.7mA	
设定距离/Setting distance	0...24mm	0...48mm
标准检出物体/Sensing target	铁/Iron 90x90x1mm	铁/Iron 180x180x1mm
工作频率/ Frequency	20Hz	
消耗电流/Consumption	———	
负载电流/Load current	200mA	
电压降/Voltage drop(V_p)	≤8V	
滞后/Hysteresis	3...15%	
重复精度/Repeatability	≤5%	
LED 显示/Display	电源指示灯：红色LED；输出指示灯：绿色LED/Power: Red LED; Operation: Green LED	
保护/Protection Circuit	———	
工作温度/Operating temperature	-25...+70°C（未结露状态）/-25...+70°C(no condensation)	
抗冲击/Anti-impact	500m/s²(50G) X、Y、Z 方向各10次/500m/s²(50G) X、Y、Z direction, each 10 times	
抗震动/Anti-vibration	10...55Hz（振幅1.5mm）X、Y、Z 方向各2小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours	
防护等级/Protection	IP66	
连接方式/Connection	端子连接/Terminal connection	
外壳材料/Housing material	PBT	
检测面材料/Sensing face material	PBT	
尺寸图 Dimensional drawing		
备 注/Remark	1: *20 ,*21-NO of wiring diagram (refers to page 14...17)	

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