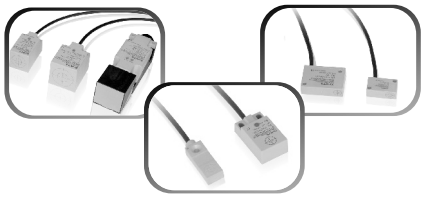
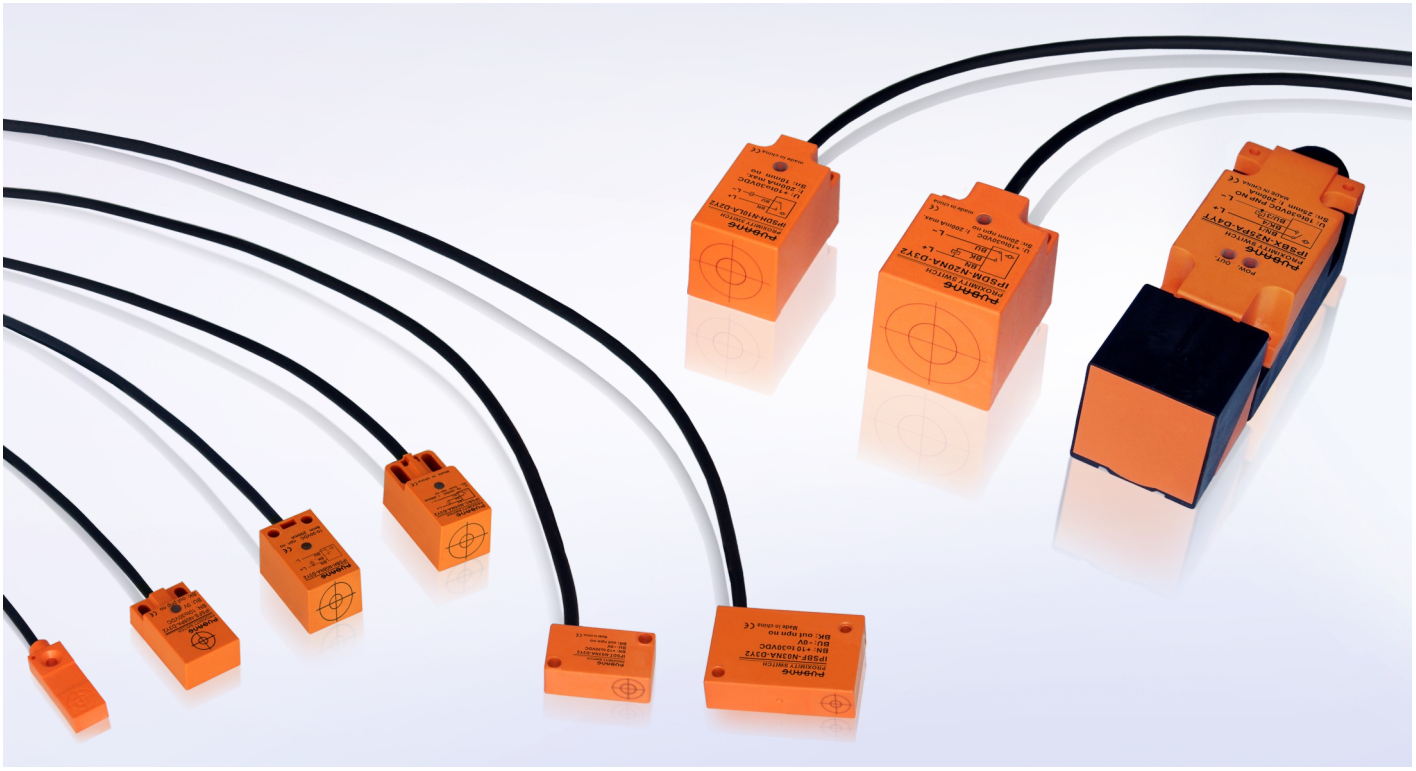
PUBANG

# 方型电感式接近开关
# Rectangular Inductive Proximity Sensor



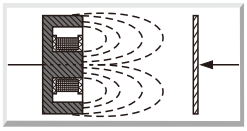
## 功能特点/ Features

- 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 sensor output status
- 经济实惠并且操作简单.
- Cost-effective, easy to operate
- 运用广泛，可替换小型微动开关和限位开关.
- Widely used, an advanced replacement to micro switch and limit switch
- 扁平结构可以安装在狭窄的空间里.
- Flat structure to suit installation in narrow place

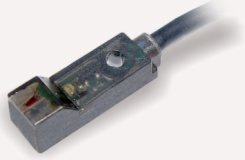
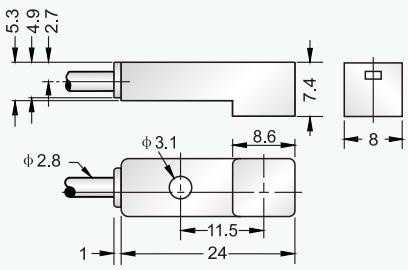
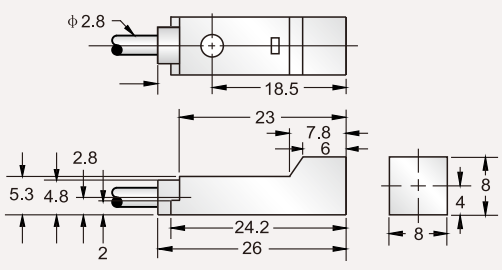


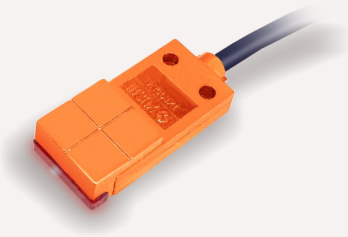

| | |
|---|---|
| FA(W8xH7.4xL24)(DC) | / B–01 |
| FB(W8xH8xL26)(DC) | / B–01 |
| FT(W10xH6xL27)(DC) | / B–02 |
| XL(W15xH8xL32)(DC) | / B–02 |
| FS(W18xH10xL30.5)(DC) | / B–03 |
| DT(W16xH12xL28)(DC) | / B–04 |
| CD(W25xH10xL50)(DC) | / B–04 |
| BF(W26xH12xL40)(DC) | / B–05 |
| BH(W17xH17xL28)(DC) | / B–06 |
| LA(W17xH17xL34)(DC) | / B–07 |
| BC(W18xH18xL36)(DC) | / B–08 |
| LD(W25xH25xL38.5)(DC) | / B–09 |
| DH(W30xH30xL52.5)(DC) | / B–09 |
| LD(W25xH25xL38.5)(AC) | / B–10 |
| DH(W30xH30xL52.5)(AC) | / B–10 |
| LB(W35xH35xL50)(DC) | / B–11 |
| DM(W40xH40xL53)(DC) | / B–11 |
| LB(W35xH35xL50)(AC) | / B–12 |
| DM(W40xH40xL53)(AC) | / B–12 |
| BX(W40xH40xL120)(DC) | / B–13 |
| KE(W80xH48xL80)(DC) | / B–13 |
| BX(W40xH40xL120)(AC) | / B–14 |
| KE(W80xH48xL80)(AC) | / B–14 |


■ 电感式
■ Inductive

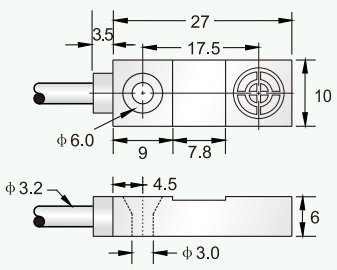


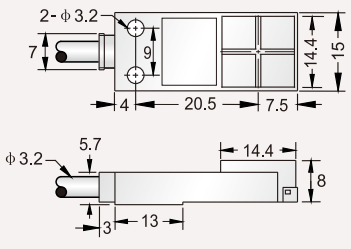
CE

| | W8xH7.4xL24 | | W8xH8xL26 | |
|---|---|---|---|---|
| 图 片 PICTURE |  | |  | |
| 直流-3线/DC-3 wires NPN N.O. | IPSFA-N02NA-D3Y2 | *01 | IPSFB-N02NA-D3Y2 | *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSFA-N02NB-D3Y2 | *02 | IPSFB-N02NB-D3Y2 | *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSFA-N02PA-D3Y2 | *03 | IPSFB-N02PA-D3Y2 | *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSFA-N02PB-D3Y2 | *04 | IPSFB-N02PB-D3Y2 | *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 | 2mm | | | |
| 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 | <0.01mA | | | |
| 设定距离/Setting distance | 0...1.6mm | | | |
| 标准检出物体/Sensing target | 铁/Iron 8x8x1mm | | | |
| 工作频率/Frequency | 600Hz | | | |
| 消耗电流/Consumption | ≤15mA | | | |
| 负载电流/Load current | 100mA | | | |
| 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φ2.8mm/Cable: φ2.8mm 2M | | | |
| 外壳材料/Housing material | PC | | | |
| 检测面材料/Sensing face material | PC | | | |
| 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) | |

| | W10xH6xL27 | | W15xH8xL32 | |
|---|---|---|---|---|
| 图片 PICTURE |  | |  | |
| 直流-3线/DC-3 wires NPN N.O. | IPSFT-N03NA-D3Y2 | *01 | IPSXL-N05NA-D3Y2 | *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSFT-N03NB-D3Y2 | *02 | IPSXL-N05NB-D3Y2 | *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSFT-N03PA-D3Y2 | *03 | IPSXL-N05PA-D3Y2 | *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSFT-N03PB-D3Y2 | *04 | IPSXL-N05PB-D3Y2 | *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 | 3mm | | 5mm | |
| 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 | <0.01mA | | | |
| 设定距离/Setting distance | 0...2.4mm | | 0...4.0mm | |
| 标准检出物体/Sensing target | 铁/Iron 12x12x1mm | | 铁/Iron 18x18x1mm | |
| 工作频率/Frequency | 700Hz | | 600Hz | |
| 消耗电流/Consumption | ≤15mA | | | |
| 负载电流/Load current | 100mA | | | |
| 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φ3.2mm/Cable: φ3.2mm 2M | | | |
| 外壳材料/Housing material | PBT | | | |
| 检测面材料/Sensing face material | PBT | | | |

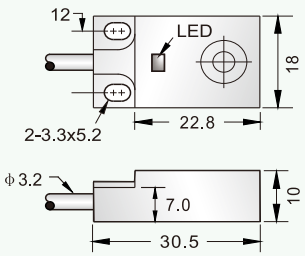
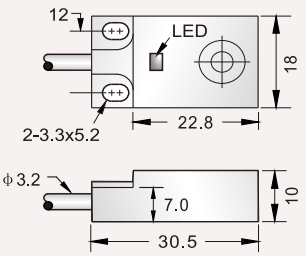
尺寸图
Dimensional drawing

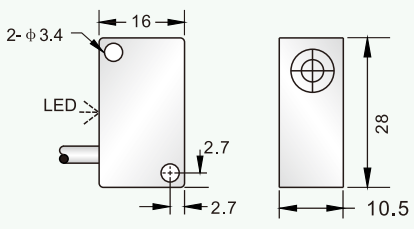
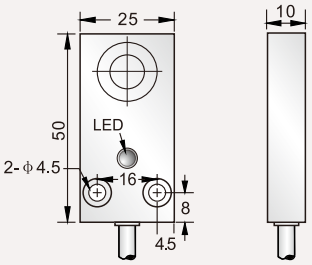


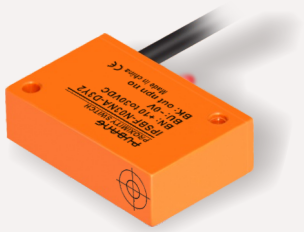
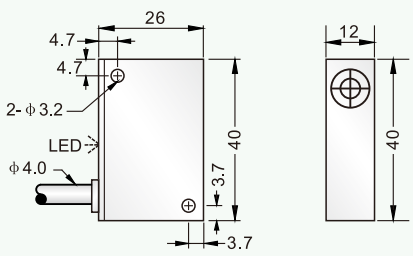
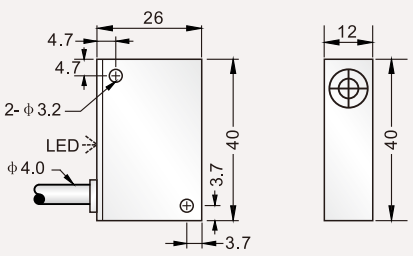



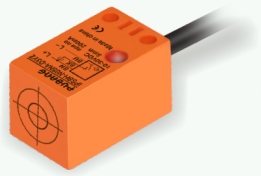
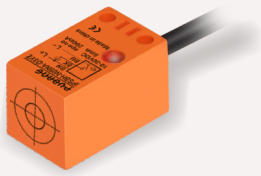
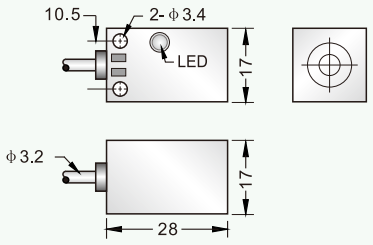
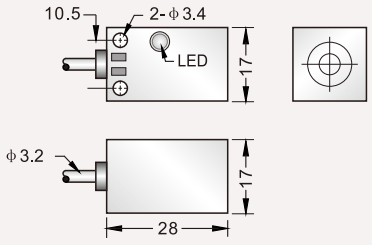

备注/Remark

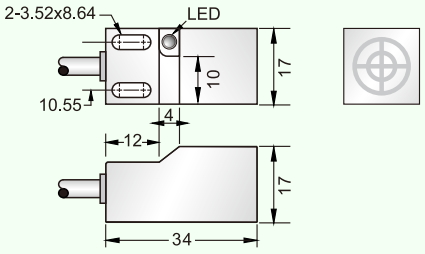
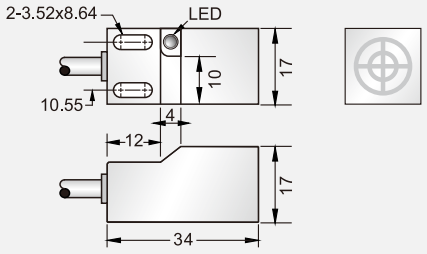
1: *01 ,*02 ,*03,*04-NO of wiring diagram ( refers to page 14...17 )　　2: Pigtail connection is also available

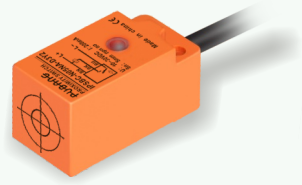
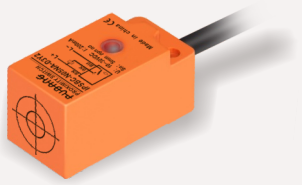
| | W18xH10xL30.5 | W18xH10xL30.5 |
|---|---|---|
| 图 片 PICTURE |  |  |
| 直流-3线/DC-3 wires NPN N.O. | IPSFS-N05NA-D3Y2 *01 | IPSFS-N08NA-D3Y2 *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSFS-N05NB-D3Y2 *02 | IPSFS-N08NB-D3Y2 *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSFS-N05PA-D3Y2 *03 | IPSFS-N08PA-D3Y2 *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSFS-N05PB-D3Y2 *04 | IPSFS-N08PB-D3Y2 *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 | 5mm | 8mm |
| 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 | <0.01mA | |
| 设定距离/Setting distance | 0...4.0mm | 0...6.4mm |
| 标准检出物体/Sensing target | 铁/Iron 18x18x1mm | 铁/Iron 25x25x1mm |
| 工作频率/ Frequency | 600Hz | 400Hz |
| 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φ3.2mm/Cable: φ3.2mm 2M | |
| 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。 | 2：连接方式可选择插头式连接线(猪尾式) |

| | W16xH10.5xL28 | | W25xH10xL50 | |
|---|---|---|---|---|
| 图 片 PICTURE |  | |  | |
| 直流-3线/DC-3 wires NPN N.O. | IPSDT-N03NA-D3Y2 | *01 | IPSCD-N08NA-D3Y2 | *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSDT-N03NB-D3Y2 | *02 | IPSCD-N08NB-D3Y2 | *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSDT-N03PA-D3Y2 | *03 | IPSCD-N08PA-D3Y2 | *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSDT-N03PB-D3Y2 | *04 | IPSCD-N08PB-D3Y2 | *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 | 3mm | | 8mm | |
| 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 | <0.01mA | | | |
| 设定距离/Setting distance | 0...2.4mm | | 0...6.4mm | |
| 标准检出物体/Sensing target | 铁/Iron 12x12x1mm | | 铁/Iron 25x25x1mm | |
| 工作频率/Frequency | 700Hz | | 400Hz | |
| 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 | | | |
| 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: *01 ,*02 ,*03,*04-NO of wiring diagram ( refers to page 14...17 ) | | 2: Pigtail connection is also available | |

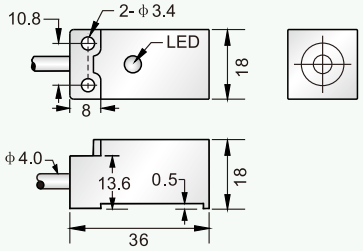
| | W26xH12xL40 | | W26xH12xL40 | |
|---|---|---|---|---|
| 图 片<br>PICTURE |  | |  | |
| 直流-3线/DC-3 wires NPN N.O. | IPSBF-N03NA-D3Y2 | *01 | IPSBF-N05NA-D3Y2 | *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSBF-N03NB-D3Y2 | *02 | IPSBF-N05NB-D3Y2 | *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSBF-N03PA-D3Y2 | *03 | IPSBF-N05PA-D3Y2 | *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSBF-N03PB-D3Y2 | *04 | IPSBF-N05PB-D3Y2 | *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 | 3mm | | 5mm | |
| 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 | <0.01mA | | | |
| 设定距离/Setting distance | 0...2.4mm | | 0...4.0mm | |
| 标准检出物体/Sensing target | 铁/Iron 12x12x1mm | | 铁/Iron 18x18x1mm | |
| 工作频率/Frequency | 700Hz | | 600Hz | |
| 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 | | | |
| 外壳材料/Housing material | PBT | | | |
| 检测面材料/Sensing face material | PBT | | | |
| 尺寸图<br>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) | |

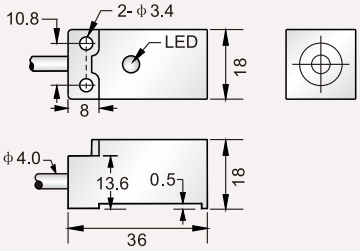
| | W17xH17xL28 | W17xH17xL28 |
|---|---|---|
| 图片 PICTURE |  CE |  CE |
| 直流-3线/DC-3 wires NPN N.O. | IPSBH-N05NA-D3Y2 *01 | IPSBH-N08NA-D3Y2 *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSBH-N05NB-D3Y2 *02 | IPSBH-N08NB-D3Y2 *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSBH-N05PA-D3Y2 *03 | IPSBH-N08PA-D3Y2 *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSBH-N05PB-D3Y2 *04 | IPSBH-N08PB-D3Y2 *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 | 5mm | 8mm |
| 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 | <0.01mA | |
| 设定距离/Setting distance | 0...4.0mm | 0...6.4mm |
| 标准检出物体/Sensing target | 铁/Iron 18x18x1mm | 铁/Iron 25x25x1mm |
| 工作频率/Frequency | 600Hz | 400Hz |
| 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φ4.0mm/Cable: φ4.0mm 2M | |
| 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: *01 ,*02 ,*03,*04-NO of wiring diagram ( refers to page 14...17 ) | 2: Pigtail connection is also available |

| | W17xH17xL34 | | W17xH17xL34 | |
|---|---|---|---|---|
| 图 片 PICTURE |  | |  | |
| 直流-3线/DC-3 wires NPN N.O. | IPSLA-N05NA-D3Y2-1 | *01 | IPSLA-N08NA-D3Y2-1 | *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSLA-N05NB-D3Y2-1 | *02 | IPSLA-N08NB-D3Y2-1 | *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSLA-N05PA-D3Y2-1 | *03 | IPSLA-N08PA-D3Y2-1 | *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSLA-N05PB-D3Y2-1 | *04 | IPSLA-N08PB-D3Y2-1 | *04 |
| 直流-2线/DC-2 wires N.O. | IPSLA-N08LA-D2Y2-1 | *18 | IPSLA-N10LA-D2Y2-1 | *18 |
| 直流-2线/DC-2 wires N.C. | IPSLA-N08LB-D2Y2-1 | *19 | IPSLA-N10LB-D2Y2-1 | *19 |
| 检测距离/Rated sensing distance | 5mm | | 8mm | |
| 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...4.0mm | | 0...6.4mm | |
| 标准检出物体/Sensing target | 铁/Iron 18x18x1mm | | 铁/Iron 25x25x1mm | |
| 工作频率/Frequency | 500Hz | | 150Hz | |
| 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 | ≤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φ4mm/Cable: φ4mm 2M | | | |
| 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。 | | 2：连接方式可选择插头式连接线(猪尾式) | |

| | W18xH18xL36 | W18xH18xL36 |
|---|---|---|
| 图 片 PICTURE |  |  |
| 直流-3线/DC-3 wires NPN N.O. | IPSBC-N05NA-D3Y2 *01 | IPSBC-N08NA-D3Y2 *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSBC-N05NB-D3Y2 *02 | IPSBC-N08NB-D3Y2 *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSBC-N05PA-D3Y2 *03 | IPSBC-N08PA-D3Y2 *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSBC-N05PB-D3Y2 *04 | IPSBC-N08PB-D3Y2 *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 | 5mm | 8mm |
| 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 | <0.01mA | |
| 设定距离/Setting distance | 0...4.0mm | 0...6.4mm |
| 标准检出物体/Sensing target | 铁/Iron 18x18x1mm | 铁/Iron 25x25x1mm |
| 工作频率/ Frequency | 600Hz | 400Hz |
| 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 | |
| 外壳材料/Housing material | PBT | |
| 检测面材料/Sensing face material | PBT | |

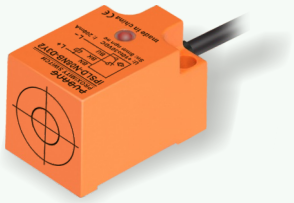
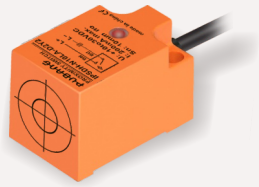
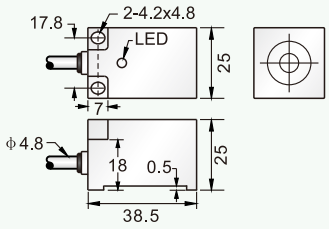
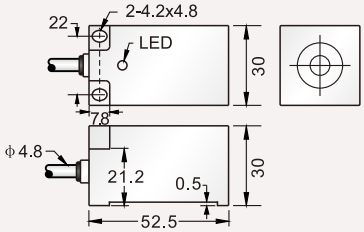
尺寸图
Dimensional drawing

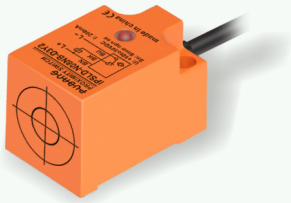
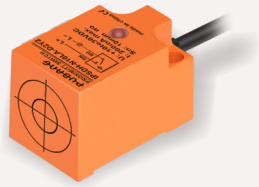
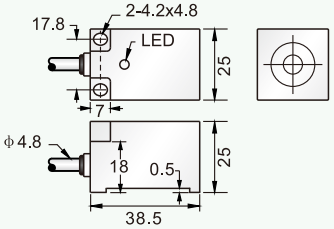
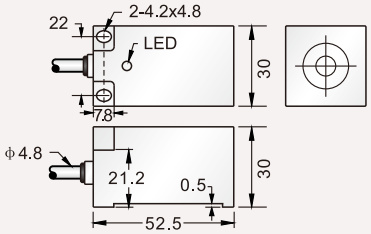


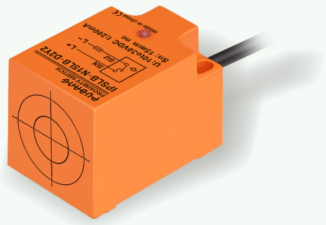
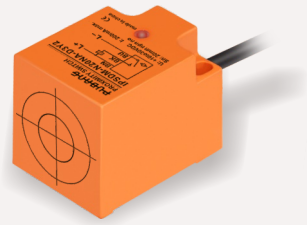
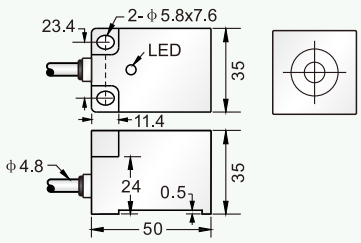
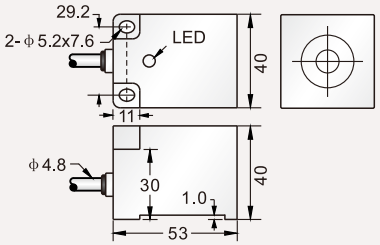



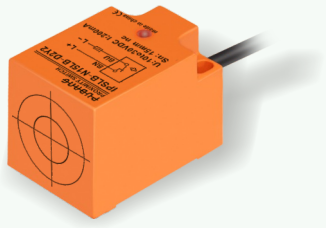
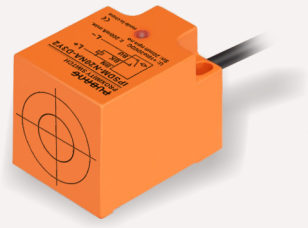
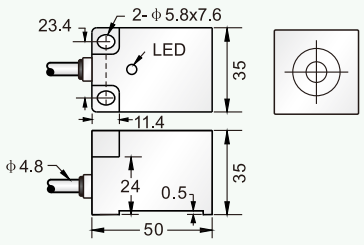
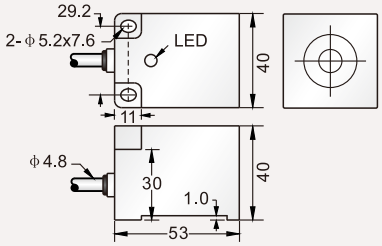

备 注/Remark

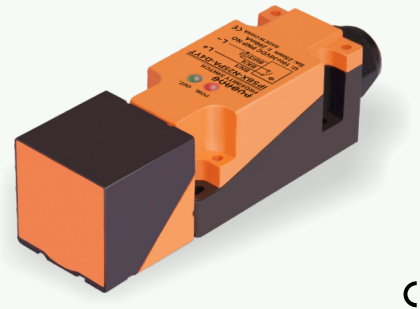
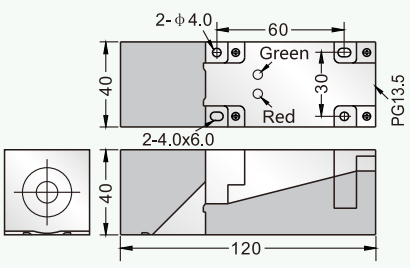
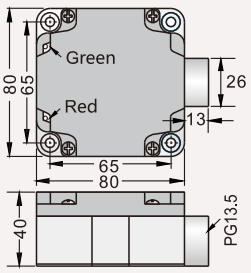
1: *01 ,*02 ,*03,*04-NO of wiring diagram ( refers to page 14...17 )　　2: Pigtail connection is also available

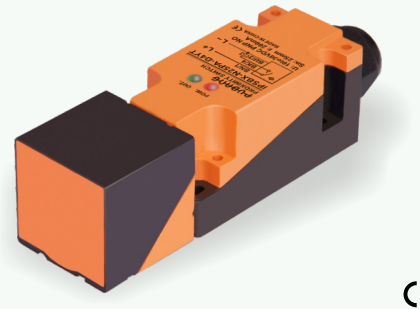
| | W25xH25xL38.5 | | W30xH30xL52.5 | |
|---|---|---|---|---|
| 图 片 PICTURE |  | |  | |
| 直流-3线/DC-3 wires NPN N.O. | IPSLD-N08NA-D3Y2 | *01 | IPSDH-N10NA-D3Y2 | *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSLD-N08NB-D3Y2 | *02 | IPSDH-N10NB-D3Y2 | *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSLD-N08PA-D3Y2 | *03 | IPSDH-N10PA-D3Y2 | *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSLD-N08PB-D3Y2 | *04 | IPSDH-N10PB-D3Y2 | *04 |
| 直流-2线/DC-2 wires N.O. | IPSLD-N08LA-D2Y2 | *18 | IPSDH-N10LA-D2Y2 | *18 |
| 直流-2线/DC-2 wires N.C. | IPSLD-N08LB-D2Y2 | *19 | IPSDH-N10LB-D2Y2 | *19 |
| 检测距离/Rated sensing distance | 8mm | | 10mm | |
| 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...6.4mm | | 0...8mm | |
| 标准检出物体/Sensing target | 铁/Iron 25x25x1mm | | 铁/Iron 30x30x1mm | |
| 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 | | | |
| 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。 | | 2：连接方式可选择插头式连接线(猪尾式) | |

| | W25xH25xL38.5 | | W30xH30xL52.5 | |
|---|---|---|---|---|
| 图片 PICTURE |  | |  | |
| 交流-2线/AC-2 wires N.O. | IPSLD-N08AA-A2N2 | *20 | IPSDH-N10AA-A2N2 | *20 |
| 交流-2线/AC-2 wires N.C. | IPSLD-N08AB-A2N2 | *21 | IPSDH-N10AB-A2N2 | *21 |
| 检测距离/Rated sensing distance | 8mm | | 10mm | |
| 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...6.4mm | | 0...8mm | |
| 标准检出物体/Sensing target | 铁/Iron 25x25x1mm | | 铁/Iron 30x30x1mm | |
| 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 | 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 | |

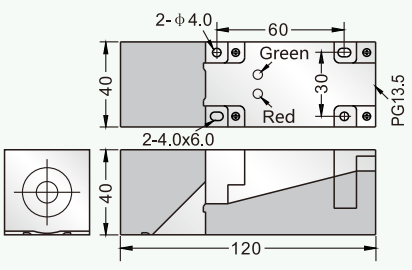
| | W35xH35xL50 | | W40xH40xL53 | |
|---|---|---|---|---|
| 图片 PICTURE |  | |  | |
| 直流-3线/DC-3 wires NPN N.O. | IPSLB-N15NA-D3Y2 | *01 | IPSDM-N20NA-D3Y2 | *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSLB-N15NB-D3Y2 | *02 | IPSDM-N20NB-D3Y2 | *02 |
| 直流-3线/DC-3 wires PNP N.O. | IPSLB-N15PA-D3Y2 | *03 | IPSDM-N20PA-D3Y2 | *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSLB-N15PB-D3Y2 | *04 | IPSDM-N20PB-D3Y2 | *04 |
| 直流-2线/DC-2 wires N.O. | IPSLB-N15LA-D2Y2 | *18 | IPSDM-N20LA-D2Y2 | *18 |
| 直流-2线/DC-2 wires N.C. | IPSLB-N15LB-D2Y2 | *19 | IPSDM-N20LB-D2Y2 | *19 |
| 检测距离/Rated sensing distance | 15mm | | 20mm | |
| 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...12mm | | 0...16mm | |
| 标准检出物体/Sensing target | 铁/Iron 45x45x1mm | | 铁/Iron 60x60x1mm | |
| 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 | 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) | |

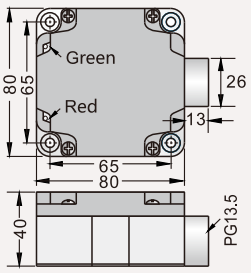
| | W35xH35xL50 | | W40xH40xL53 | |
|---|---|---|---|---|
| 图 片 PICTURE |  | |  | |
| 交流-2线/AC-2 wires N.O. | IPSLB-N15AA-A2N2 | *20 | IPSDM-N20AA-A2N2 | *20 |
| 交流-2线/AC-2 wires N.C. | IPSLB-N15AB-A2N2 | *21 | IPSDM-N20AB-A2N2 | *21 |
| 检测距离/Rated sensing distance | 15mm | | 20mm | |
| 安装方式/Mounting | 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...12mm | | 0...16mm | |
| 标准检出物体/Sensing target | 铁/Iron 45x45x1mm | | 铁/Iron 60x60x1mm | |
| 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 | 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 | |

| | W40xH40xL120 | | W80xH40xL80 | |
|---|---|---|---|---|
| 图 片 PICTURE |  | |  | |
| 直流-3线/DC-3 wires NPN N.O. | IPSBX-N20NA-D4YT | *01 | IPSKE-N40NA-D4YT | *01 |
| 直流-3线/DC-3 wires NPN N.C. | IPSBX-N20NB-D4YT | *02 | IPSKE-N40NB-D4YT | *02 |
| 直流-4线/DC-4 wires NPN N.O.+N.C. | IPSBX-N20NC-D4YT | *10 | IPSKE-N40NC-D4YT | *10 |
| 直流-3线/DC-3 wires PNP N.O. | IPSBX-N20PA-D4YT | *03 | IPSKE-N40PA-D4YT | *03 |
| 直流-3线/DC-3 wires PNP N.C. | IPSBX-N20PB-D4YT | *04 | IPSKE-N40PB-D4YT | *04 |
| 直流-4线/DC-4 wires PNP N.O.+N.C. | IPSBX-N20PC-D4YT | *11 | IPSKE-N40PC-D4YT | *11 |
| 直流-2线/DC-2 wires N.O. | IPSBX-N20LA-D4YT | *18 | IPSKE-N40LA-D4YT | *18 |
| 直流-2线/DC-2 wires N.C. | IPSBX-N20LB-D4YT | *19 | IPSKE-N40LB-D4YT | *19 |
| 检测距离/ Rated sensing distance | 20mm | | 40mm | |
| 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...16mm | | 0...32mm | |
| 标准检出物体/Sensing target | 铁/Iron 60x60x1mm | | 铁/Iron 120x120x1mm | |
| 工作频率/ Frequency | 200Hz | | 100Hz | |
| 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。 | | 2：连接方式可选择插头式连接线(猪尾式) | |

| | W40xH40xL120 | | W80xH40xL80 | |
|---|---|---|---|---|
| 图片 PICTURE |  | |  | |
| 交流-2线/AC-2 wires N.O. | IPSBX-N20AA-A4NT | *20 | IPSKE-N40AA-A4NT | *20 |
| 交流-2线/AC-2 wires N.C. | IPSBX-N20AB-A4NT | *21 | IPSKE-N40AB-A4NT | *21 |
| 检测距离/Rated sensing distance | 20mm | | 40mm | |
| 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...16mm | | 0...32mm | |
| 标准检出物体/Sensing target | 铁/Iron 60x60x1mm | | 铁/Iron 120x120x1mm | |
| 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 )

2: Pigtail connection is also available