

Proximity SWITCHES

Inductive Sensors



Food and Beverage



Automotive Industry



Machine & Equipment



Warehouse & Distribution

Capacitive Sensors

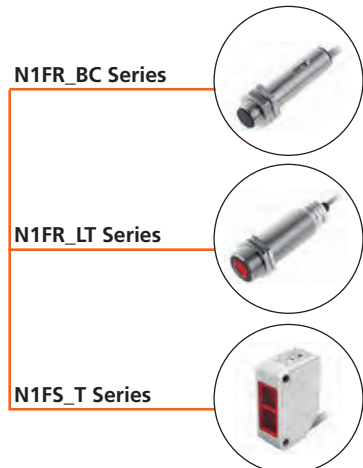


Printing Industry



Textile Industry

Photo Electric Sensors



Packing Industry



Doors & Elevators

04 电感式传感器 Inductive sensors

- >> Available in several Materials such as Nickel-Copper Alloy, Stainless Steel, Aluminum and Plastic
- >> Extended temperature version (-40°C up to 120°C)
- >> Cable and Connector Types
- >> Protection degree : IP67 (IEC)
- >> CE and UL Certification

05	Standard function	标准功能系列
12	Frequency enhanced	频率增强系列
13	Extended sensing distance	增强远距离系列
15	Analog output	模拟量输出系列
16	Extended temperature	温度扩展系列
17	High pressure resistant	耐高压系列
18	Full metal housing	全金属封装系列
18	Rotation speed monitor	转速监控系列
19	Welding-immune	强磁免疫系列
19	Self-diagnosed	自诊断系列
20	Zero decrement	无衰减系列
21	Wide voltage	宽电压系列

- >> Available in several Materials such as Nickel-Copper Alloy, Stainless Steel (only Capacitive Sensors), Aluminum and Plastic
- >> Cable and Connector Types
- >> Protection degree : IP67 (IEC)
- >> CE and UL Certification

23 电容式传感器 Capacitive sensors

24	Standard function	标准功能系列
26	Extended sensing distance	增强远距离系列
27	Pipe liquid level detecting	管道液位系列
27	High temperature resistant material level detecting	耐高温料位系列

28 光电式传感器 Photoelectric sensors

29	Diffuse reflection	漫反射系列
30	Through beam	对射系列

Proximity Switches

Inductive Sensors

How to order:

N1

1. 分类 Type code

D:电感式 Inductive

2. 外形 Shape code

R:圆柱形 Cylindrical

E:方形 Rectangular

3. 尺寸 Size code

数字:外壳尺寸 Number: Housing diameter

如: 08:M8 e.g: 08:M8

4. 外壳形状 Shape code

Q:光滑圆柱形 Smooth cylindrical

V:角柱形 Angle column

Z:组合形 Combination

H:环形 Ring-shaped

U:槽型 U-shaped

5. 外壳材料 Housing material

无:金属铜壳 N/A: Copper

S:塑料 Plastic

G:不锈钢 Stainless steel

V:铝质 Aluminium

6. 外形尺寸 Housing length

A:短型 Short

B:标准型 Standard

C:长型 Long

7. 安装形式 Mounting

N:非埋 Non-flushed(nf)

F:埋入 Flushed(f)

8. 检测距离 Sensing distance

例: 02:2mm

04:4mm

10:10mm

9. 工作电压 Supply voltage

A:20...250VAC

B:90...250VAC

C:380VAC

D:10...30VDC

E:10...60VDC

F:8.2VDC

G:5...60VDC

L:15...30VDC

H:20...30VDC

I:10...40VDC

J:5VDC

S:20...250VAC/DC

T:12...24VDC

10. 输出方式 Output way

B:AC/DC二线 AC/DC 2 wires

L:DC二线 DC 2 wires

T:AC二线 AC 2 wires

P:PNP

N:NPN

E:NPN/PNP

F:NPN+PNP

K:继电器 Relay

11. 输出状态 Output status

A:常开/常闭可逆 NO/NC Reversible

B:常开/常闭可选 NO/NC Optional

分为电缆线可选、电位器可选

Cable optional; Potentiometer optional

O:常开 NO

C:常闭 NC

R:常开+常闭 NO+NC

IU:电压型+电流型 Voltage+current

(0...10V,0...20mA)

U:电压型(0...10V) Voltage(0...10V)

I:电流型(0...20mA) Current(0...20mA)

I4:电流型(4...20mA) Current(4...20mA)

12. 开关功能 By sensor function

无:标准功能型 N/A:Standard function

M:模拟量 Analogue

N:NAMUR

W:耐高温(-25°C...120°C)

High temperature resistant(-25°C...120°C)

W1:耐低温(-40°C...70°C)

Low temperature resistant(-40°C...70°C)

W2:耐高温(-25°C...100°C)

High temperature resistant(-25°C...100°C)

B:耐高压 High pressure resistant

T:速度型 Speed

Z:自诊断 Self-diagnosis

Y:增强远距离型 Extended sensing distance

G:频率增强型 High frequency

Q:全金属封装型 Metal sensing face

A:强磁免疫型 Welding-immune

K:抗电源干扰 EMI

F:检测铁 Detect ferrum object

NF:检测非铁 Detect non-ferrum object

J:监速型 Rotation speed monitoring

13. 引线长度 Cable length

例: 无:2m eg: N/A:2m

3M:3m

14. 连接形式 Connection

无:2M引线式 N/A:2M cable

E1:M8三芯插件 M8 connector (3 pins)

E2:M12四芯插件 M12 connector (4 pins)

E3:M8四芯插件 M8 connector (4 pins)

E4:M12四芯梯形插件

M12 trapezoid connector (4 pins)

E5:M12五芯插件 M12 connector (5 pins)

D:内端子接线 Terminal

15. 特殊要求 Special requirement

用四位数字表示 In 4 digits

Proximity Switches

Inductive Sensors / Standard function



外壳代号 Shell code	N1DR04Q	N1DR05	N1DR6.5Q	N1DR08	N1DR12	
尺寸规格 (mm) Specifications(mm)	Φ4*30	M5*0.5*30	Φ6.5*40	M8*1*40	M12*1*40, M12*1*50	
安装方式 Mounting	● 埋入 ● Flushed	● 埋入 ● Flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	
检测距离 Sensing distance	0.8mm	0.8mm	1.5mm, 2mm	1.5mm, 2mm	2mm, 4mm	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	
	DC 4线 DC 4 Wires	/	/	/	/	
	DC 2线 DC 2 Wires	/	/	NO NC	NO NC	NO NC
	AC 2线 AC 2 Wires	/	/	/	/	NO NC
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/	/
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC 20...250 VAC	
开关频率 Frequency	2500Hz	2500Hz	1500Hz, 2000Hz	1500Hz, 2000Hz	DC3/4: 1000Hz, 1500Hz DC2: 500Hz, 800Hz AC2: 20Hz	
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67	
外壳材料 Housing material	不锈钢 Stainless steel	不锈钢 Stainless steel	不锈钢 Stainless steel	不锈钢 Stainless steel	镍铜合金 Nickel-copper Alloy	
连接方式 Connection	成型电缆, M8 连接器 Cable, M8 Connector	成型电缆, M8 连接器 Cable, M8 Connector	成型电缆 M8/M12 连接器 Cable M8/M12 Connector	成型电缆 M8/M12 连接器 Cable M8/M12 Connector	成型电缆 Cable	
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	CE UL CCC	

Proximity Switches

Inductive Sensors / Standard function



外壳代号 Shell code	N1DR18	N1DR30	N1DR12	N1DR18	N1DR30
尺寸规格 (mm) Specifications(mm)	M18*1*40, M18*1*50	M30*1.5*40, M30*1.5*50	M12*1*40, M12*1*50	M18*1*40, M18*1*50	M30*1.5*40, M30*1.5*50
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	5mm, 8mm	10mm, 15mm	2mm, 4mm	5mm, 8mm	10mm, 15mm
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	NO NC	NO NC	NO NC	NO NC
	AC 2线 AC 2 Wires	NO NC	NO NC	NO NC	NO NC
	AC/DC 2线 AC/DC 2 Wires	NO NC	NO NC	/	NO NC
电源电压 Supply voltage	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC VDC 20...250 VAC 20...250 VAC/DC
开关频率 Frequency	DC3/4: 800Hz, 1000Hz DC2: 300Hz, 500Hz AC2: 20Hz	DC3/4: 300Hz, 500Hz DC2: 200Hz AC2: 20Hz	DC3/4: 1000Hz, 1500Hz DC2: 500Hz, 800Hz AC2: 20Hz	DC3/4: 800Hz, 1000Hz DC2: 300Hz, 500Hz AC2: 20Hz	DC3/4: 500Hz, 300Hz DC2: 200Hz, 300Hz AC2: 20Hz
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy
连接方式 Connection	成型电缆 Cable	成型电缆 Cable	M12 连接器 M12 Connector	M12 连接器 M12 Connector	M12 连接器 M12 Connector
产品认证 Certification	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC

Proximity Switches

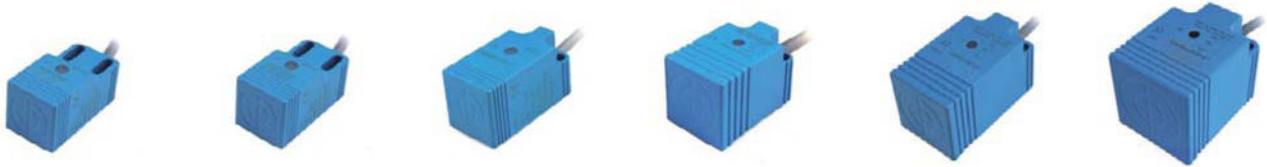
Inductive Sensors / Standard function



外壳代号 Shell code	N1DE08	N1DE09	N1DE11	N1DE10	N1DE17	
尺寸规格 (mm) Specifications(mm)	7.5*8*23	7.5*8*23	12*7*27	18*10*30	17*17*28	
安装方式 Mounting	⊙ 非埋 ⊙ Non-flushed	⊙ 非埋 ⊙ Non-flushed	⊙ 非埋 ⊙ Non-flushed	● 埋入, ⊙ 非埋 ● Flushed, ⊙ Non-flushed	● 埋入, ⊙ 非埋 ● Flushed, ⊙ Non-flushed	
检测距离 Sensing distance	2.5mm	2.5mm	3mm	5mm, 8mm	5mm, 8mm	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	
	DC 4线 DC 4 Wires	/	/	/	/	
	DC 2线 DC 2 Wires	/	/	/	/	NO NC
	AC 2线 AC 2 Wires	/	/	/	/	NO NC
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/	/
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC 90...250 VAC	
开关频率 Frequency	1000Hz	1000Hz	1000Hz	800Hz, 1000Hz	DC3/4: 500Hz, 700Hz DC2: 500Hz, 700Hz AC2: 20Hz	
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67	
外壳材料 Housing material	PC	PC	PC	PBT	PBT	
连接方式 Connection	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable	
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	CE UL CCC	

Proximity Switches

Inductive Sensors / Standard function



外壳代号 Shell code	N1DE18	N1DE20	N1DE25	N1DE30	N1DE20
尺寸规格 (mm) Specifications(mm)	18*18*35	20*20*38	25*25*39	30*30*53	40*40*53
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	5mm, 8mm	5mm, 8mm	7mm, 10mm	10mm, 15mm	15mm, 20mm
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	/	/	/	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	NO NC	NO NC	NO NC	NO NC
	AC 2线 AC 2 Wires	NO NC	NO NC	NO NC	NO NC
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/
电源电压 Supply voltage	10...30 VDC 90...250 VAC	10...30 VDC 90...250 VAC	10...30 VDC 90...250 VAC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC 20...250 VAC/DC
开关频率 Frequency	DC3/4: 500Hz, 700Hz DC2: 500Hz, 700Hz AC2: 20Hz	DC3/4: 500Hz, 700Hz DC2: 500Hz, 700Hz AC2: 20Hz	DC3/4: 500Hz, 700Hz DC2: 500Hz, 700Hz AC2: 20Hz	DC3/4: 500Hz, 700Hz DC2: 500Hz, 700Hz AC2: 20Hz	DC3/4: 200Hz, 400Hz DC2: 200Hz, 400Hz AC2: 20Hz
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	PBT	PBT	PBT	PBT	PBT
连接方式 Connection	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable
产品认证 Certification	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC

Proximity Switches

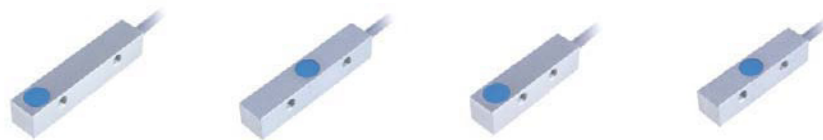
Inductive Sensors / Standard function



外壳代号 Shell code	N1DE50	N1DE68	N1DE40SZ	N1DE40ZX	N1DE80ZX
尺寸规格 (mm) Specifications(mm)	25*10*50	40*20*68	40*40*66	40*40*120	80*80*40
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	5mm, 8mm	15mm, 25mm	15mm, 20mm	15mm, 20mm	40mm, 50mm
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	/	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	/	NO NC	NO NC	NO NC
	AC 2线 AC 2 Wires	/	NO NC	NO NC	NO NC
	AC/DC 2线 AC/DC 2 Wires	/	NO NC	NO NC	NO NC
电源电压 Supply voltage	10...30 VDC	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC 20...250 VAC/DC
开关频率 Frequency	500Hz, 700Hz	DC3/4: 300Hz, 500Hz DC2: 300Hz, 500Hz AC2: 20Hz	DC3/4: 300Hz, 500Hz DC2: 300Hz, 500Hz AC2: 20Hz	DC3/4: 300Hz, 500Hz DC2: 300Hz, 500Hz AC2: 20Hz	DC3/4: 50Hz, 100Hz DC2: 50Hz, 100Hz AC2: 10Hz
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	PBT	PBT	PBT	PBT	PBT
连接方式 Connection	成型电缆 Cable	成型电缆, M12 连接器 Cable, M12 Connector	M12 连接器 M12 Connector	M12 连接器, 端子连接 M12 Connector Terminal connect	M12 连接器, 端子连接 M12 Connector Terminal connect
产品认证 Certification	CE UL	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC

Proximity Switches

Inductive Sensors / Standard function



外壳代号 Shell code	N1DE81	N1DE82	N1DE83	N1DE84	
尺寸规格 (mm) Specifications(mm)	8*8*40, 8*8*50	8*8*40, 8*8*50	8*8*25, 8*8*34	8*8*25, 8*8*34	
安装方式 Mounting	● 埋入 ● Flushed	● 埋入 ● Flushed	● 埋入 ● Flushed	● 埋入 ● Flushed	
检测距离 Sensing distance	1.5mm	1.5mm	1.5mm	1.5mm	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	/	/	/	/
	DC 2线 DC 2 Wires	/	/	/	/
	AC 2线 AC 2 Wires	/	/	/	/
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
开关频率 Frequency	2000Hz	2000Hz	2000Hz	2000Hz	
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	
防护等级 Protection degree	IP67	IP67	IP67	IP67	
外壳材料 Housing material	铝合金 Aluminum alloy	铝合金 Aluminum alloy	铝合金 Aluminum alloy	铝合金 Aluminum alloy	
连接方式 Connection	成型电缆, M8 连接器 Cable, M8 Connector	成型电缆, M8 连接器 Cable, M8 Connector	成型电缆, M8 连接器 Cable, M8 Connector	成型电缆, M8 连接器 Cable, M8 Connector	
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	

Proximity Switches

Inductive Sensors / Standard function



外壳代号 Shell code		N1DR05	N1DR08	N1DR12	N1DR18	N1DR30
尺寸规格 (mm) Specifications(mm)		M5*0.5*22, M5*0.5*30	M8*1*22, M8*1*40	M12*1*30, M12*1*36	M18*1*30, M18*1*36	M30*1.5*30, M30*1.5*36
安装方式 Mounting		● 埋入 ● Flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance		0.8mm	1.5mm, 2mm	2mm, 4mm	5mm, 8mm	10mm, 15mm
输出方式 Output	NAMUR	NC	NC	NC	NC	NC
	DC 3线 DC 3 Wires	/	/	/	/	/
	DC 4线 DC 4 Wires	/	/	/	/	/
	DC 2线 DC 2 Wires	/	/	/	/	/
	AC 2线 AC 2 Wires	/	/	/	/	/
电源电压 Supply voltage		7.7...9 VDC	7.7...9 VDC	7.7...9 VDC	7.7...9 VDC	7.7...9 VDC
开关频率 Frequency		3000Hz	2000Hz, 2500Hz	1500Hz, 2000Hz	1000Hz, 1500Hz	800Hz, 1000Hz
环境温度 Ambient temperature		-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree		IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material		不锈钢 Stainless steel	不锈钢 Stainless steel	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy
连接方式 Connection		成型电缆, M8 连接器 Cable, M8 Connector	成型电缆 M8/M12 连接器 Cable M8/M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector
产品认证 Certification		CE UL	CE UL	CE UL	CE UL	CE UL

Proximity Switches

Inductive Sensors / Standard function (Namur)

Frequency enhanced



外壳代号 Shell code	N1DE40ZX	N1DE40ZX	N1DE40ZX	N1DR12X	N1DR18X
尺寸规格 (mm) Specifications(mm)	40*40*66	40*40*120	80*80*40	M12*1*50, M12*1*53	M18*1*50, M18*1*53
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	15mm, 20mm	15mm, 20mm	40mm, 50mm	2mm, 4mm	5mm, 8mm
NAMUR	NC	NC	NC	/	/
输出方式 Output	DC 3线 DC 3 Wires	/	/	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	/	/	/	/
	DC 2线 DC 2 Wires	/	/	/	/
	AC 2线 AC 2 Wires	/	/	/	/
电源电压 Supply voltage	7.7...9 VDC	7.7...9 VDC	7.7...9 VDC	10...30 VDC	10...30 VDC
开关频率 Frequency	250Hz, 400Hz	250Hz, 400Hz	100Hz	3000Hz, 4000Hz	1500Hz, 2000Hz
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	PBT	PBT	PBT	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy
连接方式 Connection	M12 连接器 M12 Connector	M12 连接器, 端子连接 M12 Connector Terminal connect	M12 连接器, 端子连接 M12 Connector Terminal connect	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	CE UL

Proximity Switches

Inductive Sensors / Extended sensing distance



外壳代号 Shell code	N1DR04Q	N1DR05	N1DR6.5Q	N1DR08	N1DR12X	
尺寸规格 (mm) Specifications(mm)	Φ4*30	M5*0.5*30	Φ6.5*40	M8*1*40	M12*1*43, M12*1*46 M12*1*53, M12*1*56	
安装方式 Mounting	● 埋入 ● Flushed	● 埋入 ● Flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	
检测距离 Sensing distance	1.5mm	1.5mm	2mm, 4mm	2mm, 4mm	4mm, 6mm, 8mm 10mm	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	
	DC 4线 DC 4 Wires	/	/	/	/	
	DC 2线 DC 2 Wires	/	/	NO NC	NO NC	NO NC
	AC 2线 AC 2 Wires	/	/	/	/	NO NC
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/	NO NC
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC 20...250 VAC 20...250 VAC/DC	
开关频率 Frequency	2000Hz	2000Hz	DC3/4: 1000Hz, 1500Hz DC2: 1000Hz, 1500Hz	DC3/4: 1000Hz, 1500Hz DC2: 1000Hz, 1500Hz	DC3/4: 300Hz, 500Hz, 800Hz DC2: 300Hz, 500Hz AC2: 20Hz	
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67	
外壳材料 Housing material	不锈钢 Stainless steel	不锈钢 Stainless steel	不锈钢 Stainless steel	不锈钢 Stainless steel	镍铜合金 Nickel-copper Alloy	
连接方式 Connection	成型电缆, M8 连接器 Cable, M8 Connector	成型电缆, M8 连接器 Cable, M8 Connector	成型电缆 M8/M12 连接器 Cable M8/M12 Connector	成型电缆 M8/M12 连接器 Cable M8/M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	CE UL CCC	

Proximity Switches

Inductive Sensors / Extended sensing distance



外壳代号 Shell code	N1DR18X	N1DR30X	N1DE40SZ	N1DE40XZ	N1DE80XZ
尺寸规格 (mm) Specifications(mm)	M18*1*43, M18*1*46 M18*1*53, M18*1*56	M30*1.5*43, M30*1.5*46 M30*1.5*53, M30*1.5*56	40*40*66	40*40**120	80*80*40
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	8mm, 12mm, 20mm	15mm, 22mm, 40mm	25mm, 40mm	25mm, 40mm	50mm, 70mm
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	NO NC	NO NC	NO NC	NO NC
	AC 2线 AC 2 Wires	NO NC	NO NC	NO NC	NO NC
	AC/DC 2线 AC/DC 2 Wires	NO NC	NO NC	NO NC	NO NC
电源电压 Supply voltage	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC 20...250 VAC/DC
开关频率 Frequency	DC3/4: 150Hz, 200Hz, 300Hz, 400Hz DC2: 200Hz, 400Hz AC2: 20Hz	DC3/4: 50Hz, 100Hz, 150Hz, 300Hz DC2: 150Hz, 300Hz AC2: 20Hz	DC3/4: 100Hz, 200Hz DC2: 100Hz, 200Hz AC2: 20Hz	DC3/4: 100Hz, 200Hz DC2: 100Hz, 200Hz AC2: 20Hz	DC3/4: 30Hz, 50Hz DC2: 30Hz, 50Hz AC2: 20Hz
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	PBT	PBT	PBT
连接方式 Connection	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	M12 连接器 M12 Connector	M12 连接器, 端子连接 M12 Connector Terminal connect	M12 连接器, 端子连接 M12 Connector Terminal connect
产品认证 Certification	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC

Proximity Switches

Inductive Sensors / Analog output



外壳代号 Shell code	N1DR12X	N1DR18X	N1DR30X	N1DE40SZ	N1DE40XZ
尺寸规格 (mm) Specifications(mm)	M12*1*43, M12*1*46	M18*1*43, M18*1*46	M30*1.5*43 M30*1.5*46	40*40*66	40*40**120
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	2mm, 4mm	5mm, 8mm	10mm, 15mm	15mm, 20mm	15mm, 20mm
输出方式 Output	电压型输出 Voltage output	0...5V/0...10V	0...5V/0...10V	0...5V/0...10V	0...5V/0...10V
	电流型输出 Current output	0...20mA/4...20mA	0...20mA/4...20mA	0...20mA/4...20mA	0...20mA/4...20mA
	电压+电流输出 Voltage+Current output	0...10V+0...20mA	0...10V+0...20mA	0...10V+0...20mA	0...10V+0...20mA
电源电压 Supply voltage	15...30 VDC	15...30 VDC	15...30 VDC	15...30 VDC	15...30 VDC
开关频率 Frequency	100Hz, 200Hz	100Hz, 200Hz	100Hz, 200Hz	50Hz, 100Hz	50Hz, 100Hz
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	PBT	PBT
连接方式 Connection	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	M12 连接器 M12 Connector	M12 连接器, 端子连接 M12 Connector Terminal connect
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	CE UL

Proximity Switches

Inductive Sensors / Extended temperature



外壳代号 Shell code	N1DR12X	N1DR18X	N1DR30X	N1DE40SZ	N1DE40XZ
尺寸规格 (mm) Specifications(mm)	M12*1*43, M12*1*46	M18*1*43, M18*1*46	M30*1.5*43, M30*1.5*46	40*40*66	40*40*120
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	2mm, 4mm	5mm, 8mm	10mm, 15mm	15mm, 20mm	15mm, 20mm
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	/	/	/	/
	DC 2线 DC 2 Wires	/	/	/	/
	AC 2线 AC 2 Wires	/	/	/	/
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
开关频率 Frequency	1000Hz, 1500Hz	800Hz, 1000Hz	300Hz, 500Hz	200Hz, 300Hz	200Hz, 300Hz
环境温度 Ambient temperature	-40...+70°C, -25...+120°C	-40...+70°C, -25...+120°C	-40...+70°C, -25...+120°C	-40...+70°C, -25...+100°C	-40...+70°C, -25...+100°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	镍铜合金 Nick-copper Alloy	镍铜合金 Nick-copper Alloy	镍铜合金 Nick-copper Alloy	PBT	PBT
连接方式 Connection	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	M12 连接器 M12 Connector	M12 连接器, 端子连接 M12 Connector Terminal connect
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	CE UL

Proximity Switches

Inductive Sensors / High pressure resistant



外壳代号 Shell code	N1DR12X	N1DR14X	N1DR16X	N1DR18X	
尺寸规格 (mm) Specifications(mm)	M12*1*62, M12*1*77	M14*1*53.4, M14*1*63.4	M16*1*63, M16*1*73	M18*1*58, M18*1*74	
安装方式 Mounting	● 埋入 ● Flushed	● 埋入 ● Flushed	● 埋入 ● Flushed	● 埋入 ● Flushed	
检测距离 Sensing distance	1.5mm	1.5mm	2mm	2mm	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	/	/	/	/
	DC 2线 DC 2 Wires	/	/	/	/
	AC 2线 AC 2 Wires	/	/	/	/
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
开关频率 Frequency	600Hz	600Hz	600Hz	200Hz	
环境温度 Ambient temperature	-25...+80°C	-25...+80°C	-25...+80°C	-25...+80°C	
防护等级 Protection degree	IP68	IP68	IP68	IP68	
外壳材料 Housing material	不锈钢 Stainless steel	不锈钢 Stainless steel	不锈钢 Stainless steel	不锈钢 Stainless steel	
连接方式 Connection	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	

Proximity Switches

Inductive Sensors / Full metal housing

Rotation speed monitor



外壳代号 Shell code	N1DR12X	N1DR18X	N1DR30X	N1DR18X	N1DR30X
尺寸规格 (mm) Specifications(mm)	M12*1*50, M12*1*53	M18*1*50, M18*1*53	M30*1.5*50, M30*1.5*53	M18*1*53	M30*1.5*53
安装方式 Mounting	● 埋入 ● Flushed	● 埋入 ● Flushed	● 埋入 ● Flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	2mm	5mm	10mm	5mm, 8mm	10mm, 15mm
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NC PNP NC
	DC 4线 DC 4 Wires	/	/	/	/
	DC 2线 DC 2 Wires	/	/	/	/
	AC 2线 AC 2 Wires	/	/	/	NC
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC
开关频率 Frequency	300Hz	200Hz	100Hz	DC: 3...3000 times/min AC: 3...1200 times/min	DC: 3...3000 times/min AC: 3...1200 times/min
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	不锈钢 Stainless steel	不锈钢 Stainless steel	不锈钢 Stainless steel	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy
连接方式 Connection	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆 Cable	成型电缆 Cable
产品认证 Certification	CE UL	CE UL	CE UL	CE UL CC	CE UL CC

Proximity Switches

Inductive Sensors / Welding immune

Self-diagnosed



外壳代号 Shell code	N1DR12X	N1DR18X	N1DR30X	N1DR12X	N1DR12X
尺寸规格 (mm) Specifications(mm)	M12*1*43, M12*1*46	M18*1*43, M18*1*46	M30*1.5*43, M30*1.5*46	M12*1*57	M12*1*40, M12*1*60
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	○ 非埋 ○ Non-flushed	○ 非埋 ○ Non-flushed
检测距离 Sensing distance	2mm, 4mm	5mm, 8mm	10mm, 15mm	3.7mm	3.7mm
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	PNP NO; PNP NC
	DC 4线 DC 4 Wires	/	/	/	/
	DC 2线 DC 2 Wires	/	/	/	/
	AC 2线 AC 2 Wires	/	/	/	/
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	20...30 VDC	20...30 VDC
开关频率 Frequency	2000Hz, 3000Hz	1000Hz, 1500Hz	500Hz, 800Hz	300Hz	300Hz
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	黄铜+PTFE 涂层, PTFE Brass+PTFE, PTFE	黄铜+PTFE 涂层, PTFE Brass+PTFE, PTFE	黄铜+PTFE 涂层, PTFE Brass+PTFE, PTFE	镍铜合金 Nick-copper Alloy	镍铜合金 Nick-copper Alloy
连接方式 Connection	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆 Cable	M12 连接器 M12 Connector
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	CE UL

Proximity Switches

Inductive Sensors / Zero decrement



外壳代号 Shell code	N1DR12X	N1DR18X	N1DR30X	N1DE40SZ	N1DE40XZ
尺寸规格 (mm) Specifications(mm)	M12*1*43,M12*1*46 M12*1*53,M12*1*56	M18*1*43,M18*1*46 M18*1*53,M18*1*56	M30*1.5*43,M30*1.5*46 M30*1.5*53,M30*1.5*56	40*40*66	40*40*120
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	2mm,4mm	5mm,8mm	10mm,15mm	15mm, 20mm	15mm, 20mm
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	/	/	/	/
	AC 2线 AC 2 Wires	/	/	/	/
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
开关频率 Frequency	500Hz, 800Hz	200Hz, 400Hz	150Hz, 300Hz	100Hz, 200Hz	100Hz, 200Hz
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	PBT	PBT
连接方式 Connection	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	M12 连接器 M12 Connector	M12 连接器, 端子连接 M12 Connector Terminal connect
产品认证 Certification	CE UL	CE UL	CE UL	CE UL	CE UL

Proximity Switches

Inductive Sensors / Wide voltage



外壳代号 Shell code	N1DR12X	N1DR18X	N1DR30X	N1DR12X	N1DR18X
尺寸规格 (mm) Specifications(mm)	M12*1*40, M12*1*50	M18*1*40, M18*1*50	M30*1.5*40, M30*1.5*50	M12*1*40, M12*1*50	M18*1*40, M18*1*50
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed
检测距离 Sensing distance	2mm, 4mm	5mm, 8mm	10mm, 15mm	2mm, 4mm	5mm, 8mm
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	NO NC	NO NC	NO NC	NO NC
	AC 2线 AC 2 Wires	/	/	/	/
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/
电源电压 Supply voltage	10...60 VDC	10...60 VDC	10...60 VDC	10...60 VDC	10...60 VDC
开关频率 Frequency	DC3/4: 1000Hz, 1500Hz DC2: 500Hz, 800Hz	DC3/4: 800Hz, 1000Hz DC2: 300Hz, 500Hz	DC3/4: 300Hz, 500Hz DC2: 200Hz	DC3/4: 1000Hz, 1500Hz DC2: 500Hz, 800Hz	DC3/4: 800Hz, 1000Hz DC2: 300Hz, 500Hz
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67
外壳材料 Housing material	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy
连接方式 Connection	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable	M12 连接器 M12 Connector	M12 连接器 M12 Connector
产品认证 Certification	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC

Proximity Switches

Inductive Sensors / Wide voltage



外壳代号 Shell code	N1DR30	N1DE40SZ	N1DE40ZX	N1DE80ZX	
尺寸规格 (mm) Specifications(mm)	M30*1.5*40, M30*1.5*50	40*40*66	40*40*120	80*80*40	
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	
检测距离 Sensing distance	10mm, 15mm	15mm, 20mm	15mm, 20mm	40mm, 50mm	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	NO NC	NO NC	NO NC	NO NC
	AC 2线 AC 2 Wires	/	/	/	/
	AC/DC 2线 AC/DC 2 Wires	/	/	/	/
电源电压 Supply voltage	10...60 VDC	10...60 VDC	10...60 VDC	10...60 VDC	
开关频率 Frequency	DC3/4: 500Hz, 300Hz DC2: 200Hz, 300Hz	DC3/4: 300Hz, 500Hz DC2: 300Hz, 500Hz	DC3/4: 300Hz, 500Hz DC2: 300Hz, 500Hz	DC3/4: 50Hz, 100Hz DC2: 50Hz, 100Hz	
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	
防护等级 Protection degree	IP67	IP67	IP67	IP67	
外壳材料 Housing material	镍铜合金 Nickel-copper Alloy	PBT	PBT	PBT	
连接方式 Connection	M12 连接器 M12 Connector	M12 连接器 M12 Connector	M12 连接器, 端子连接 M12 Connector Terminal connect	M12 连接器, 端子连接 M12 Connector Terminal connect	
产品认证 Certification	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC	

Proximity Switches

Capacitive Sensors

How to order:

N1

1. 分类代号 Type code

K:电容式 Capacitive

2. 外形代号 Shape code

R:螺纹圆柱形 Threaded cylindrical

Q:光滑圆柱形 Smooth cylindrical

E:方形 Rectangular

3. 尺寸代号 Size code

数字:外壳尺寸

Number: Housing diameter

如: 08:M8 e.g: 08:M8

4. 外壳材料 Housing material

无:金属铜壳 N/A: Copper

S:塑料 Plastic

G:不锈钢 Stainless steel

5. 外形尺寸 Housing length

A:短型 Short

B:标准型 Standard

C:长型 Long

6. 安装形式 Mounting

N:非埋 Non-flushed(nf)

F:埋入 Flushed(f)

7. 检测距离 Sensing distance

例: 02:2mm

04:4mm

10:10mm

8. 工作电压 Supply voltage

A:20...250VAC

D:10...30VDC

E:10...60VDC

M:18...36VDC

S:20...250VAC/DC

9. 输出方式 Output way

B:AC/DC二线 AC/DC 2 wires

T:AC二线 AC 2 wires

P:PNP

N:NPN

E:NPN/PNP

F:NPN+PNP

K:继电器 Relay

10. 输出状态 Output status

A:常开/常闭可逆

NO/NC reversible

B:常开/常闭可选

NO/NC optional

分为电缆线可选、电位器可选

Cable optional; Potentiometer optional

O:常开 NO

C:常闭 NC

R:常开+常闭 R:NO+NC

注:继电器输出可以不选

Note:Relay output is optional

11. 开关功能 By sensor function

无:标准功能型

N/A:Standard function

Y:增强远距离型

Extended sensing distance

12. 引线长度 Cable length

例: 无:2m

eg: N/A:2m

3M:3m

13. 连接形式 Connection

无:2M引线式 N/A:2M cable

E1:M8三芯插件 M8 connector (3 pins)

E2:M12四芯插件 M12 connector (4 pins)

E3:M8四芯插件 M8 connector (4 pins)

E4:M12四芯梯形插件

M12 trapezoid connector (4 pins)

E5:M12五芯插件 M12 connector (5 pins)

D:内端子接线 Terminal

14. 特殊要求 Special requirement

用四位数字表示 In 4 Digits

Proximity Switches

Capacitive Sensors / Standard function



外壳代号 Shell code	N1KR12	N1KR18	N1KR30	N1KQ20	N1KQ32	
尺寸规格 (mm) Specifications(mm)	M12*1*50	M18*1*46.5	M30*1.5*50	Φ20*80	Φ32*80	
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	
检测距离 Sensing distance	2mm, 4mm	5mm, 8mm	10mm, 15mm	10mm, 15mm	15mm, 20mm	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	
	DC 4线 DC 4 Wires	/	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	
	DC 2线 DC 2 Wires	/	/	/	/	
	AC 2线 AC 2 Wires	/	NO NC	NO NC	/	NO NC
	AC/DC 2线 AC/DC 2 Wires	/	/	NO NC	/	NO NC
电源电压 Supply voltage	10...30 VDC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC 20...250 VAC/DC	
开关频率 Frequency	50Hz	15Hz, 50Hz	15Hz, 50Hz	15Hz, 50Hz	15Hz, 50Hz	
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C	
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67	
外壳材料 Housing material	镍铜合金, PA66 Nickel-copper Alloy, PA66	镍铜合金, PBT, 不锈钢 Nickel-copper Alloy, PBT Stainless steel	镍铜合金, PBT, 不锈钢 Nickel-copper Alloy, PBT Stainless steel	PBT, 不锈钢 PBT, Stainless steel	镍铜合金, PBT Nickel-copper Alloy, PBT	
连接方式 Connection	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆 Cable	成型电缆 Cable	
产品认证 Certification	CE UL	CE UL CCC	CE UL CCC	CE UL CCC	CE UL CCC	

Proximity Switches

Capacitive Sensors / Standard function



外壳代号 Shell code	N1KQ32	N1E07	N1E34	N1E35	
尺寸规格 (mm) Specifications(mm)	Φ34*80	30*7*50	50*7*20	35*15*50	
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	○ 非埋 ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	
检测距离 Sensing distance	15mm, 20mm	5mm, 8mm	10mm	10mm, 15mm	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	NPN NO+NC PNP NO+NC	/	/	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	/	/	/	/
	AC 2线 AC 2 Wires	NO NC	/	/	/
	AC/DC 2线 AC/DC 2 Wires	NO NC	/	/	/
电源电压 Supply voltage	10...30 VDC 20...250 VAC 20...250 VAC/DC	10...30 VDC	10...30 VDC	10...30 VDC	
开关频率 Frequency	15Hz, 50Hz	30Hz	30Hz	30Hz	
环境温度 Ambient temperature	-25...+70°C	-10...+55°C	-10...+55°C	-10...+55°C	
防护等级 Protection degree	IP67	IP67	IP67	IP67	
外壳材料 Housing material	PBT	PBT	PBT	PBT	
连接方式 Connection	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable	
产品认证 Certification	CE UL CCC	CE	CE	CE	

Proximity Switches

Capacitive Sensors / Extended sensing distance



外壳代号 Shell code	N1KR12	N1KR18	N1KR30		
尺寸规格 (mm) Specifications(mm)	M12*1*50	M18*1*46.5	M30*1.5*50		
安装方式 Mounting	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed	● 埋入, ○ 非埋 ● Flushed, ○ Non-flushed		
检测距离 Sensing distance	4mm,8mm	8mm, 12mm	15mm, 22mm		
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	
	DC 4线 DC 4 Wires	/	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	
	DC 2线 DC 2 Wires	/	/	/	
	AC 2线 AC 2 Wires	/	/	/	
	AC/DC 4线 AC/DC 4Wires	/	/	/	
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC		
开关频率 Frequency	50Hz	50Hz	50Hz		
环境温度 Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C		
防护等级 Protection degree	IP67	IP67	IP67		
外壳材料 Housing material	PA66	PBT	PBT		
连接方式 Connection	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector	成型电缆, M12 连接器 Cable, M12 Connector		
产品认证 Certification	CE UL	CE UL	CE UL		

Proximity Switches

Capacitive Sensors / Pipe liquid level detecting & High temperature res. Material level detecting



外壳代号 Shell code	N1KE10	N1KE15	N1KE53		
尺寸规格 (mm) Specifications(mm)	43*24*20	34*33*20	55*22*96		
安装方式 Mounting	● 非埋 ● Non-flushed	● 非埋 ● Non-flushed	● 非埋 ● Non-flushed		
检测距离 Sensing distance	13mm	26mm	8mm		
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	
	DC 4线 DC 4 Wires	/	/	/	
	DC 2线 DC 2 Wires	/	/	/	
	AC 2线 AC 2 Wires	/	/	/	
	AC/DC 2线 AC/DC 2 Wires	/	/	/	
电源电压 Supply voltage	10...30 VDC	10...30 VDC	18...36 VDC		
开关频率 Frequency	20Hz	20Hz	60Hz		
环境温度 Ambient temperature	-10...+55°C	-10...+55°C	感应头: 250°C 控制盒: 0...+60°C Sensor: 250°C Control box: 0...+60°C		
防护等级 Protection degree	IP67	IP67	IP54		
外壳材料 Housing material	PBT	PBT	主体材质: PA66 感应头材质: 不锈钢+特氟龙 Control box: PA66, Sensing head: Stainless steel+Teflon		
连接方式 Connection	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable		
产品认证 Certification	CE	CE	CE U		

Proximity Switches

Photoelectric Sensors

How to order:

N1

1. 分类代号 Type code

F:光电式 Photoelectric

2. 外形代号 Shape code

R:螺纹圆柱形 Threaded cylindrical

U:槽形 U-Shaped

Q:光滑圆柱外壳
Smooth cylindrical

2位字母:方形外壳
2 letters:Rectangular housing code

3. 尺寸代号 Size Code

数字:外壳尺寸 Number:Housing diameter
如: 08:M8 e.g: 08:M8

4. 外壳材料 Housing material

无:金属铜壳 N/A:Copper

S:塑料 S:Plastic

5. 外形尺寸 Housing length

无:标准型 N/A:Standard

短型:S Short:S

长型:L Long:L

6. 安装形式 Mounting

B:漫反射式 Diffuse reflection

D:回归反射式 Retro reflection

P:偏振反射式 Polarized reflection

S:限定反射式 Focus reflection

T:对射式 Through beam reflection

M:色标检测式 Color mark detect

Y:背景抑制式 Background suppression

7. 检测距离 Sensing distance

例: C10:10cm

C40:40cm

M5:5m

M10:10m

8. 工作电压 Supply voltage

A:20...250VAC

A1:110VAC

A2:220VAC

B:90...250VAC

C:380VAC

D:10...30VDC

E:10...60VDC

I:10...40VDC

J:5VDC

S:12...240VDC/24...240VAC

T:12...24VDC

9. 输出方式 Output way

T:AC二线 AC 2 wires

P:PNP

N:NPN

E:NPN/PNP

F:NPN+PNP

K:继电器 Relay

10. 输出状态 Output status

O:常开 NO

C:常闭 NC

R:常开+常闭 NO+NC

A:常开/常闭可逆

NO/NC Reversible

B:常开/常闭可选

NO/NC Optional

分为电缆线可选、电位器可选

Cable optional; Potentiometer optional

注:继电器输出可以不选

Note:Relay output is optional

11. 延时状态 Time delay status

无:不带延时功能

N/A:Without time delay function

T1:带前延时功能

With previous time delay function

T2:带后延时功能

With later time delay function

T3:带前后延时功能

With previous/later time delay function

12. 引线长度 Cable length

例: 无:2m eg: N/A:2m

3M:3m

13. 连接形式 Connection

无:2M引线式 N/A:2M cable

E1:M8三芯插件

M8 connector (3 pins)

E2:M12四芯插件

M12 connector (4 pins)

E3:M8四芯插件

M8 connector (4 pins)

E4:M12四芯梯形插件

M12 trapezoid connector (4 pins)

E5:M12五芯插件

M12 connector (5 pins)

D:内端子接线 Terminal

14. 特殊要求 Special requirement

用四位数字表示 In 4 Digits

Proximity Switches

Photoelectric Sensors / Diffuse reflection



外壳代号 Shell code	N1FR12	N1FR18	N1FR18G	N1FR30	
检测距离 Sensing distance	15cm	10cm, 40cm	10cm, 40cm	50cm, 100cm	
DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	
DC 4线 DC 4 Wires	/	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	
输出方式 Output					
DC 2线 DC 2 Wires	/	/	/	/	
AC 2线 AC 2 Wires	/	NO NC	NO NC	NO NC	
AC/DC 5线 AC/DC 5Wires	/	/	/	/	
电源电压 Supply voltage	10...30 VDC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC	
响应时间 Response time	DC: <8.2ms	DC: <8.2ms AC: <50 ms	DC: <8.2ms AC: <50 ms	DC: <8.2ms AC: <50 ms	
环境温度 Ambient temperature	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C	
防护等级 Protection degree	IP67	IP67	IP65	IP67	
外壳材料 Housing material	镍铜合金, PBT Nickel-copper Alloy, PBT	镍铜合金, PBT Nickel-copper Alloy, PBT	镍铜合金, PBT Nickel-copper Alloy, PBT	镍铜合金, PBT Nickel-copper Alloy, PBT	
连接方式 Connection	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	
产品认证 Certification	CE UL	CE UL CCC	CE UL CCC	CE UL CCC	

Proximity Switches

Photoelectric Sensors / Diffuse reflection



外壳代号 Shell code	N1FBA	N1FSL	N1FSF	N1FTF	N1FBA
检测距离 Sensing distance	2m	30cm	30cm, 80cm	50cm, 100cm	80cm, 2m
DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO/NC PNP NO/NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
DC 4线 DC 4 Wires	/	/	/	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC
输出方式 Output					
DC 2线 DC 2 Wires	/	/	/	/	/
AC 2线 AC 2 Wires	/	/	/	/	/
AC/DC 5线 AC/DC 5 Wires	/	/	/	继电器 NO+NC Relay output NO+NC	继电器 NO+NC Relay output NO+NC
电源电压 Supply voltage	12...24 VDC	12...24 VDC	12...24 VDC	10...30 VDC 24...240 VAC/ 12...240 VDC	10...30 VDC 24...240 VAC/ 12...240 VDC
响应时间 Response time	DC: <3ms	DC: <8.2ms	DC: <1ms	DC: < 8.2ms AC: < 30 ms	DC: < 8.2ms AC: < 30 ms
环境温度 Ambient temperature	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C
防护等级 Protection degree	IP54	IP67	IP67	IP50	IP67
外壳材料 Housing material	PC/ABS	ABS	PC/ABS	PC/ABS	PC/ABS
连接方式 Connection	成型电缆 Cable	成型电缆 Cable	成型电缆 M8 连接器 Cable M8 Connector	成型电缆 M12 连接器 Cable M12 Connector	端子连接 Terminal
产品认证 Certification	CE	CE	CE	CE UL CCC	CE UL CCC

Proximity Switches

Photoelectric Sensors / Through beam



外壳代号 Shell code	N1FR12	N1FR18	N1FR1G	N1FR30	N1FR30L
检测距离 Sensing distance	5m, 10m	10m, 20m	10m, 20m	20m, 40m	150m
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	/	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	/	/	/	/
	AC 2线 AC 2 Wires	/	NO NC	NO NC	NO NC
	AC/DC 5线 AC/DC 5 Wires	/	/	/	/
电源电压 Supply voltage	10...30 VDC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC	10...30 VDC
响应时间 Response time	DC: <8.2ms	DC: <8.2ms AC: <50 ms	DC: <8.2ms AC: <50 ms	DC: <8.2ms AC: <50 ms	DC: <8.2ms
环境温度 Ambient temperature	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C
防护等级 Protection degree	IP67	IP67	IP65	IP67	IP67
外壳材料 Housing material	镍铜合金, PBT Nickel-copper Alloy, PBT	镍铜合金, PBT Nickel-copper Alloy, PBT	镍铜合金, PBT Nickel-copper Alloy, PBT	镍铜合金, PBT Nickel-copper Alloy, PBT	镍铜合金, PBT Nickel-copper Alloy, PBT
连接方式 Connection	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 Cable
产品认证 Certification	CE UL	CE UL CCC	CE UL CCC	CE UL CCC	CE UL

Proximity Switches

Photoelectric Sensors / Trough beam



外壳代号 Shell code	N1FSL	N1FSI	N1FSF	N1FTF	N1FBA
检测距离 Sensing distance	5m, 10m	5m, 10m	5m, 10m	10m, 20m	20m, 30m, 40m
DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO/NC PNP NO/NC	NPN NO; NPN NC PNP NO; PNP NC	/
DC 4线 DC 4 Wires	/	NPN NO+NC PNP NO+NC	/	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC
输出方式 Output					
DC 2线 DC 2 Wires	/	/	/	/	/
AC 2线 AC 2 Wires	/	/	/	/	/
AC/DC 5线 AC/DC 5 Wires	/	/	/	继电器 NO+NC Relay output NO+NC	继电器 NO+NC Relay output NO+NC
电源电压 Supply voltage	12...24 VDC	10...30 VDC	12...24 VDC	10...30 VDC 24...240 VAC/ 12...240 VDC	10...30 VDC 24...240 VAC/ 12...240 VDC
响应时间 Response time	DC: < 1ms	DC: < 8.2ms	DC: < 1ms	DC: < 8.2ms AC: < 30 ms	DC: < 8.2ms AC: < 30 ms
环境温度 Ambient temperature	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C
防护等级 Protection degree	IP67	IP65	IP67	IP64	IP67
外壳材料 Housing material	PC/ABS	PC/ABS	PC/ABS	PC/ABS	PC/ABS
连接方式 Connection	成型电缆 Cable	成型电缆 Cable	成型电缆 M8 连接器 Cable M8 Connector	成型电缆 M12 连接器 Cable M12 Connector	端子连接 Terminal
产品认证 Certification	CE	CE	CE	CE UL CCC	CE UL CCC

Proximity Switches

Photoelectric Sensors / Through beam



外壳代号 Shell code	N1FU07	N1FU15	N1FU30	N1FU100	
检测距离 Sensing distance	7mm	15mm	30mm	100m	
DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO/NC PNP NO/NC	/	
DC 4线 DC 4 Wires	/	/	/	NPN/PNP NO+NO	
输出方式 Output					
DC 2线 DC 2 Wires	/	/	/	/	
AC 2线 AC 2 Wires	/	/	/	/	
AC/DC 2线 AC/DC 2 Wires	/	/	/	/	
电源电压 Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	24 VDC	
响应时间 Response time	DC: <1ms	DC: <1ms	DC: <1ms	DC: <30ms	
环境温度 Ambient temperature	-15...+55°C	-15...+55°C	-15...+55°C	-10...+55°C	
防护等级 Protection degree	IP64	IP64	IP60, IP67	IP50	
外壳材料 Housing material	PC/ABS	PC/ABS	铝合金+PC Aluminum alloy+PC	外壳: 铝合金; 透光罩: 玻璃 Housing: al; light cover: glass	
连接方式 Connection	成型电缆 Cable	成型电缆 Cable	成型电缆 Cable	M12连接器, COM M12 connector, COM	
产品认证 Certification	CE	CE	CE UL	/	

Proximity Switches

Photoelectric Sensors / Retro reflection



外壳代号 Shell code	N1FR18	N1FR1G	N1FR30	N1FSF	N1FTF	
检测距离 Sensing distance	3m	3m	5m	2m	5m	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO/NC PNP NO/NC	NPN NO; NPN NC PNP NO; PNP NC
	DC 4线 DC 4 Wires	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	/	NPN NO+NC PNP NO+NC
	DC 2线 DC 2 Wires	/	/	/	/	/
	AC 2线 AC 2 Wires	NO NC	NO NC	NO NC	/	/
	AC/DC 5线 AC/DC 5 Wires	/	/	/	/	继电器 NO+NC Relay output NO+NC
电源电压 Supply voltage	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC	10...30 VDC 20...250 VAC	12...24 VDC	10...30 VDC 24...240 VAC/ 12...240 VDC	
响应时间 Response time	DC: < 8.2ms AC: < 50 ms	DC: < 8.2ms AC: < 50 ms	DC: < 8.2ms AC: < 50 ms	DC: < 1ms	DC: < 8.2ms AC: < 30 ms	
环境温度 Ambient temperature	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C	
防护等级 Protection degree	IP67	IP65	IP67	IP67	IP64	
外壳材料 Housing material	镍铜合金, PBT Nickel-copper Alloy, PBT	镍铜合金, PBT Nickel-copper Alloy, PBT	镍铜合金, PBT Nickel-copper Alloy, PBT	PC/ABS	PC/ABS	
连接方式 Connection	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M12 连接器 Cable M12 Connector	成型电缆 M8 连接器 Cable M8 Connector	成型电缆 M12 连接器 Cable M12 Connector	
产品认证 Certification	CE U CCC	CE U CCC	CE U CCC	CE	CE U CCC	

Proximity Switches

Photoelectric Sensors / Retro reflection & Polarized reflection



外壳代号 Shell code	N1FTL	N1FSF	N1FTF	N1FTL	
检测距离 Sensing distance	5m	2m	5m	12m	
DC 3线 DC 3 Wires	/	NPN NO/NC PNP NO/NC	NPN NO; NPN NC PNP NO; PNP NC	NPN NO; NPN NC PNP NO; PNP NC	
DC 4线 DC 4 Wires	NPN NO+NC PNP NO+NC	/	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	
输出方式 Output					
DC 2线 DC 2 Wires	/	/	/	/	
AC 2线 AC 2 Wires	/	/	/	/	
AC/DC 5线 AC/DC 5 Wires	继电器 NO+NC Relay output NO+NC	/	继电器 NO+NC Relay output NO+NC	继电器 NO+NC Relay output NO+NC	
电源电压 Supply voltage	10...30 VDC 24...240 VAC/ 12...240 VDC	12...24 VDC	10...30 VDC 24...240 VAC/ 12...240 VDC	10...30 VDC 24...240 VAC/ 12...240 VDC	
响应时间 Response time	DC: < 8.2ms AC: < 30 ms	DC: < 1ms	DC: < 8.2ms AC: < 30 ms	DC: < 8.2ms AC: < 30 ms	
环境温度 Ambient temperature	-15...+55°C	-15...+55°C	-15...+55°C	-15...+55°C	
防护等级 Protection degree	IP67	IP67	IP64	IP67	
外壳材料 Housing material	PC/ABS	PC/ABS	PC/ABS	PC/ABS	
连接方式 Connection	端子连接 Terminal	成型电缆 M8 连接器 Cable M8 Connector	成型电缆 M12 连接器 Cable M12 Connector	端子连接 Terminal	
产品认证 Certification	CE UL CCC	CE	CE UL CCC	CE UL CCC	

Proximity Switches

Photoelectric Sensors / Focus reflection N3FSL & Background suppression (N3FR18 & N3FTB)



外壳代号 Shell code	N1FSL	N1FR18	N1FR18	N1FTB	N1FTB	
检测距离 Sensing distance	3cm, 5cm	10cm	10cm	200cm	200cm	
输出方式 Output	DC 3线 DC 3 Wires	NPN NO; NPN NC PNP NO; PNP NC	/	/	/	/
	DC 4线 DC 4 Wires	/	NPN NO+NC PNP NO+NC	NPN NO+NC PNP NO+NC	NPN NO/NC PNP NO/NC	NPN NO/NC PNP NO/NC
	DC 2线 DC 2 Wires	/	/	/	/	/
	AC 2线 AC 2 Wires	/	/	/	/	/
AC/DC 5线 AC/DC 5 Wires	/	/	/	/	/	
电源电压 Supply voltage	12...24 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	
响应时间 Response time	DC: < 1ms	DC: <8.2ms	DC: <8.2ms	DC: < 2ms	DC: < 2ms	
环境温度 Ambient temperature	-15...+55°C	-15...+55°C	-15...+55°C	-20...+55°C	-20...+55°C	
防护等级 Protection degree	IP67	IP67	IP67	IP67	IP67	
外壳材料 Housing material	PC/ABS	镍铜合金 Nickel-copper Alloy	镍铜合金 Nickel-copper Alloy	PC/ABS	PC/ABS	
连接方式 Connection	成型电缆 Cable	M12 连接器 M12 Connector	成型电缆 Cable	成型电缆 Cable	M12 连接器 M12 Connector	
产品认证 Certification	CE	CE	CE	CE	CE	