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角型能与国内外各相同品种直接替换 Horn type, can be the direct substitution of the same type both at home and abroad

- 电源反接保护、短路保护，可直接与PLC相联接
- 经济并且简单的操作
- 长寿命和高可靠性，耐环境性强
- 红色LED显示可以检测传感器工作状态
- IP67防护结构(IEC规格)
- 使用前请先阅读产品说明书的“注意事项”

Power supply reversal connection protection; short-circuit protection, can directly connect with PLC

Economic and simple operation

Long service life, high reliability and strong resistance property to environment

Red LED indicates that it's available to detect the sensor operating state

IP67 protection structure (IEC specification)

Read the "Matters needing attention" of the Product Instruction before use



型号规格 Type and Specification

尺寸 Dimension				17×17×28	25×25×38	30×30×52	35×35×52	40×40×52	18×18×36	17×17×28	17×17×28
安装方式 Mounting way				非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type
型 Type	直流型 DC type	NPN	NO	TL-Q5MC1	TL-N5ME1	TL-N10ME1	TL-N15ME1	TL-N20ME1	PS17-5DN	PS-05N	PS-08N
			NC	TL-Q5MC2	TL-N5ME2	TL-N10ME2	TL-N15ME2	TL-N20ME2	PS17-5DN2	PS-05N2	PS-08N2
			NO+NC						PS17-5DN3		
		PNP	NO	TL-Q5MF1	TL-N5MF1	TL-N10MF1	TL-N15MF1	TL-N20MF1	PS17-5DP	PS-05P	PS-08P
			NC	TL-Q5MF2	TL-N5MF2	TL-N10MF2	TL-N15MF2	TL-N20MF2	PS17-5DP2	PS-05P2	PS-08P2
			NO+NC						PS17-5DP3		
	交流型 AC type	二线 Two-wire	NO	TL-Q5MD1	TL-N5MD1	TL-N10MD1	TL-N15MD1	TL-N20MD1	PS17-5D1	PS-05D1	PS-08D1
			NC	TL-Q5MD2	TL-N5MD2	TL-N10MD2	TL-N15MD2	TL-N20MD2	PS17-5D2	PS-05D2	PS-08D2
		三线 Three-wire	NO	TL-Q5MY1	TL-N5MY1	TL-N10MY1	TL-N15MY1	TL-N20MY1	PS17-5Y1	PS-05Y1	PS-08Y1
			NC	TL-Q5MY2	TL-N5MY2	TL-N10MY2	TL-N15MY2	TL-N20MY2	PS17-5Y2	PS-05Y2	PS-08Y2
检测距离 Detection distance			5mm±10%	5mm±10%	10mm±10%	15mm±10%	20mm±10%	5mm±10%	5mm±10%	8mm±10%	
设定距离 Set distance			0~4mm	0~4mm	0~8mm	0~13mm	0~17mm	0~4mm	0~4mm	0~7mm	
标准检测物体 Standard detection object			铁18×18×1mm	铁25×25×1mm	铁45×45×1mm	铁45×45×1mm	铁50×50×1mm	铁18×18×1mm	铁18×18×1mm	铁18×18×1mm	
响应频率 Response frequency			DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	
图例 Illustration			图59 Chatr59	图60 Chatr60	图61 Chatr61	—	图62 Chatr62	图63 Chatr63	图64 Chatr64		

型号规格 Type and Specification

尺寸 Dimension				17×17×35	17×17×35	18×18×36	18×18×34	17×17×29	20×20×36	30×30×52	40×40×52
安装方式 Mounting way				非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type	非屏蔽式 Non-screen shield type
型 Type	直 流 型 DC type	N P N	NO	PL-05N	PL-08N	SN04-N	SN05-N	SN06-N	SN07-N	SN10-N	SN20-N
			NC	PL-05N2	PL-08N2	SN04-N2	SN05-N2	SN06-N2	SN07-N2	SN10-N2	SN20-N2
			NO+NC								
		P N P	NO	PL-05P	PL-08P	SN04-P	SN05-P	SN06-P	SN07-P	SN10-P	SN20-P
			NC	PL-05P2	PL-08P2	SN04-P2	SN05-P2	SN06-P2	SN07-P2	SN10-P2	SN20-P2
			NO+NC								
	二 线 Two-wire	NO	PL-05D1	PL-08D1	SN04-D1	SN05-D1	SN06-D1	SN07-D1	SN10-D1	SN20-D1	
		NC	PL-05D2	PL-08D2	SN04-D2	SN05-D2	SN06-D2	SN07-D2	SN10-D2	SN20-D2	
		交 流 型 AC type	NO	PL-05Y1	PL-08Y1	SN04-Y1	SN05-Y1	SN06-Y1	SN07-Y1	SN10-Y1	SN20-Y1
			NC	PL-05Y2	PL-08Y2	SN04-Y2	SN05-Y2	SN06-Y2	SN07-Y2	SN10-Y2	SN20-Y2
三 线 Three-wire	NO+NC										
检测距离 Detection distance				5mm±10%	8mm±10%	5mm±10%	5mm±10%	5mm±10%	8mm±10%	10mm±10%	20mm±10%
设定距离 Set distance				0~4mm	0~7mm	0~4mm	0~4mm	0~4mm	0~7mm	0~8mm	0~17mm
标准检测物体 Standard detection object				铁18×18×1mm	铁18×18×1mm	铁18×18×1mm	铁18×18×1mm	铁18×18×1mm	铁18×18×1mm	铁45×45×1mm	铁50×50×1mm
响应频率 Response frequency				DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz	DC: 0.5kHz AC: 25Hz
图例 Illustration				图65 Chatr65		图66 Chatr66	图67 Chatr67	—	—	—	—

特性参数 Characteristic parameters

滞后距离: 检测距离的10%以下
检测物体: 磁性金属(非磁性金属时检测距离减小)
电源电压: 直流型: DC12~24V(6~36V)脉动(P-P)10%以下,
交流型: AC110~220V(36~250V)50/60Hz
消耗电流: N.P型: 13mA以下, D型: 0.8mA以下, A型: 1.7mA以下
控制输出: N.P型: 300mA以下, D型: 200mA以下, A型: 400mA以下
回路保护: N.P.D型: 逆连接保护、浪涌吸收、负载短路保护, A型: 浪涌吸收
环境温、湿度: 动作时、保存时: 各-30~+65℃
(不结冰、不结露), 动作时、保存时: 各35~95%RH
绝缘阻抗: 50MΩ以上(DC500兆欧表)充电部分与外壳间
耐电压: AC1000V 50/60Hz 1min充电部分与外壳间
温度的影响: 温度范围-30~+65℃, +23℃时、±15%检测距离以内,
温度范围-25~+60℃, +23℃时、±10%检测距离以内
电压的影响: 额定电源电压范围±15%以内、额定电源电压值时±10%
检测距离以内
保护构造: IP67(IEC规格)
材质: (外壳: ABS) (检测面: ABS)

Delay distance: 10% below of the detection distance
Detection object: Magnetic metal (the detection distance decreases when it is non-magnetic metal)
Supply voltage: DC type: DC12~24V(6~36V) Impulse (p-p) 10% below, AC type: AC110~220V
(36~250V) 50/60Hz
Consumption current: N.P type: 13mA below, D type: 0.8mA below, A type: 1.7mA below
Control output: N.P type: 300mA below, D type: 200mA below, A type: 400mA below
Loop protection: N.P.D type: reversal connection protection, surge absorption, load short-circuit
protection, A type: surge absorption
Ambient temperature & humidity: During operation, storage: individually -30~+65℃ (no freeze,
no dew), During operation, storage: individually 35~95%RH
Insulation impedance: 50MΩ above (DC500 megameter) between charging part and housing
Withstand voltage: AC1000V 50/60Hz 1min between charging part and housing
Temperature influence: Temperature range -30~+65℃, at +23℃, ±15% detection distance;
temperature range -25~+60℃, at +23℃, ±10% detection distance
Voltage influence: Inside ±15% rated supply voltage range, at rated supply voltage value,
inside ±10% detection distance
Protection structure: IP67 (IEC specification)
Material: (Housing: ABS), (Detection surface: ABS).

外形尺寸(mm) External dimension

Chart59 图59 TL-Q5M□

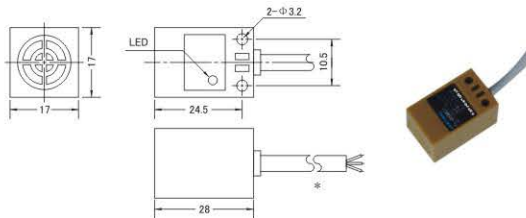


Chart60 图60 TL-N5M□

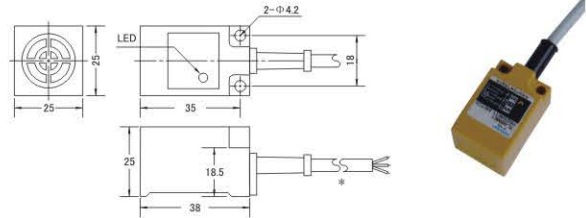


Chart61 图61 TL-N10M□

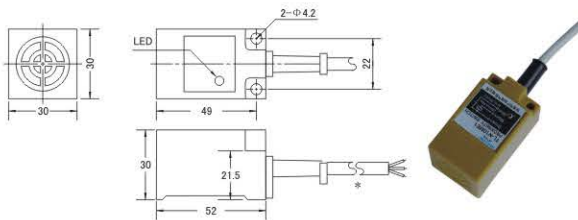


Chart62 图62 TL-N20M□

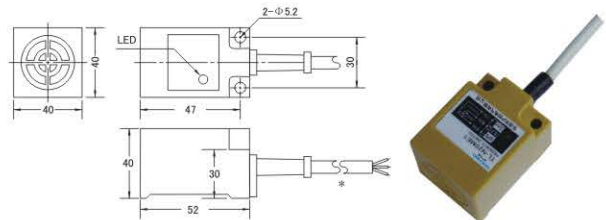


Chart63 图63 PS17-5□

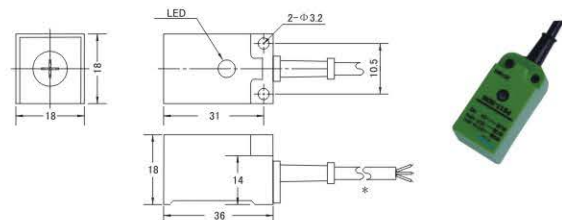


Chart64 图64 PS-05(8)□

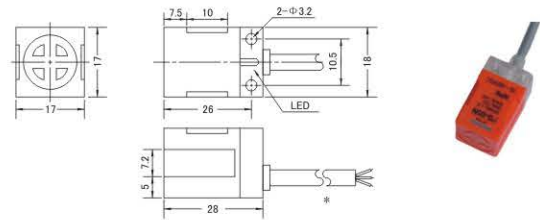


Chart65 图65 PL-05(8)□

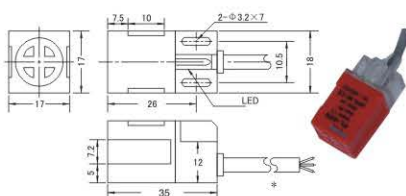


Chart66 图66 SN04-□

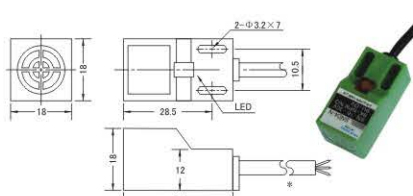


Chart67 图67 SN05-□

