Inductive Proximity Sensor/Switch Datasheet

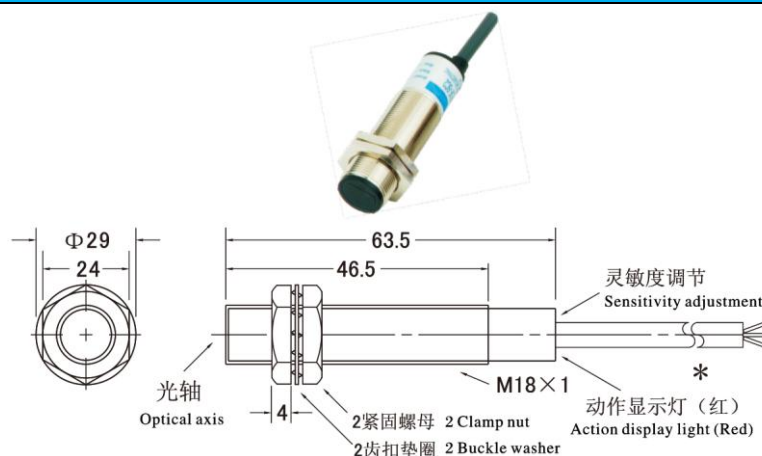## CAR200-18GM Series Cylindrical Type Photoelectric Sensor

Introduction

- Photoelectric sensor is a piece of equipment used to discover the distance, absence, or presence of an object by using a light transmitter, often infrared, and a photoelectric receiver. There are three different useful types: through beam, diffused and retro-reflective.
- Through-beam type photoelectric switch is designed that via the light beam between opposite-mounted transmitter and receiver, the object passing through these two devices will interrupt the light beam and start the receiver. The detection range of this type is up to 50M from 5M.
- Diffuse reflection type photoelectric switch integrates the transmitter and the receiver. Light reflected by the photoelectric switch is reflected back to the receiver by the detected object. Normally the detection range of this type is from 10cm to 1M
- Retro-reflective type photoelectric switch also integrates the transmitter and the receiver. Its difference from other models is that reflector is used to reflect light to the photoelectric switch. The detection range of this type is up to 2M.

Features:

- All-purpose type ,which can directly substitute the same type of P+F and OMRON
- Power supply reversal connection protection ;short-circuit protection ,can directly connect with PLC
- Newly added current over-load protection
- Long service life ,high reliability and strong resistance property to environment
- Red LED indicates that it's available to detect the sensor operating state
- Newly added metal housing to improve the installation intensity
- Countermeasure to improve the housing intensity and to solve disconnection
- M8 correlation has been trial-produced and promoted
- IP67 protection structure (IEC specification)

Structure Parameter:

Φ29 24 63.5 46.5 M18×1

灵敏度调节 Sensitivity adjustment

光轴 Optical axis

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2紧固螺母 2 Clamp nut
2齿扣垫圈 2 Buckle washer

动作显示灯（红）
Action display light (Red)

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Ordering Part Number:

Model	Detection distance	Switch point function	Working voltage	Connection form
CAR200-18GM-N1	5m±10%	NPN NO	DC6-36V	NPN NO
CAR200-18GM-N2	5m±10%	NPN NC	DC6-36V	NPN NC
CAR200-18GM-N4	5m±10%	NPN NO+NC	DC6-36V	NPN NO+NC
CAR200-18GM-P1	5m±10%	PNP NO	DC6-36V	PNP NO
CAR200-18GM-P2	5m±10%	PNP NC	DC6-36V	PNP NC
CAR200-18GM-P4	5m±10%	PNP NO+NC	DC6-36V	PNP NO+NC
CAR200-18GM-X	5m±10%	NPN/PNP/NO/NC	DC6-36V	
CAR200-18GM-A1	5m±10%	AC NO	AC90-250V	AC NO
CAR200-18GM-A2	5m±10%	AC NC	AC90-250V	AC NC
CAR200-18GM-W	5m±10%	AC NO+NC	AC90-250V	AC NO+ NC

Technical Parameter:

Rated action distance (Sn)	200 mm
Detection method	Retro-reflective type
Detection target	Opaque object
Detection range regulation	Sensitivity adjuster
Switching frequency (f)	300 HZ
Hysteresis (H)	Typical values%
Reverse polarity protection	Yes
Short circuit protection	Pulse
Voltage drop (Ud)	DC≤1 V
Voltage drop (Ud)	AC≤7 V
Working current (I_L)	0~300 mA

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Leakage current (Ir)	0~0.5mA typical values 0.1uA, 25℃
No-load current (I$_D$)	≤15mA
Indicator light	Red LED
environment temperature	-20℃~70℃(248-343K)
Connection form	2m, PVC
Conductor cross-sectional area	0.15mm^2
Shell material	Brass, Nickel plating
Induction surface	PMMA
Protection grade	IP65
Standard	EN 60947-1:2004