Color Sensor **CPES** series

Features

- Micro-color recognition
- Simple sensitivity adjustment, intelligent and digital setting
- Small size and high power dedicated detection head
- 8-channels or 4-channels detection, when multiple colors are detected, the functions can be changed from one generation to eight, reducing production costs
- Can detect nearly 3000 colors
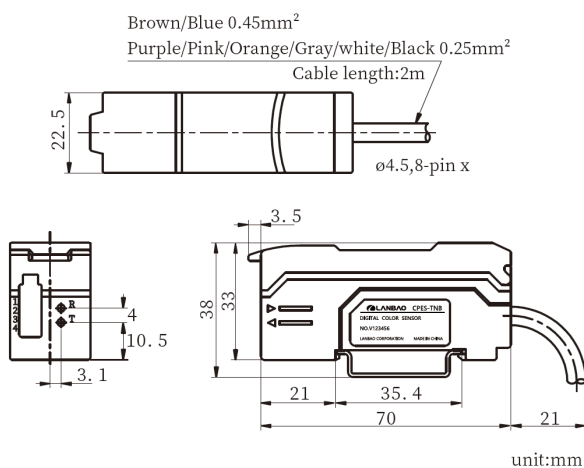- A variety of detection modes are suitable for a variety of different application requirements

Model specification

NPN	CPES-TNB	PNP	CPES-TPB

Specifications

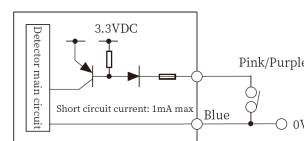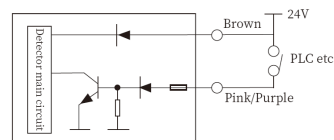|	
Response time	200μS(HIGH SPEED)/1ms(FINE)/4ms(TURBO)/8ms(SUPER)
Control output	NPN(PNP)Open collector X4 channel, max 40VDC(30VDC),1 output reaches 100mA,
	A total of 4 outputs reach 200mA,residual voltage:1V max
Protection circuit	Reverse protection, Overcurrent protection, Overvoltage protection
External calibration input	Input time: ≥20ms
External switching input (C/C+I mode)	Input time: ≥20ms
External offset input (Super Imode)	Input time: ≥20ms
Timer function	Timer OFF/OFF-delay/ON-delay/single trigger, timer time is adjustable from 1 to 1,000ms (for each domain separately)
Power supply	24VDC, Ripple(P-P): ＜10%
Consumption current	Normal mode: 1.5W(≤62.5mA),Eco mode: 1W(≤42mA)
Ambient temperature	-10...55℃(No condensation)
Vibration resistance	10...55Hz, dual amplitude 1.5mm(2 hours each in X, Y, Z directions)
Material	Housing、Cover: PC
Weight	About 150g (with 2m cable)

Dimensions

Brown/Blue 0.45mm^2
Purple/Pink/Orange/Gray/white/Black 0.25mm^2
Cable length:2m

22.5
ø4.5,8-pin x

3.5
38 33
R
T
4
10.5
3.1
21   35.4
70   21

unit:mm

Wiring diagram

Input circuit

Output circuit

External regulation(Pink)/External database selection/external shift(purple)

Detector main circuit
3.3VDC
Pink/Purple
Short circuit current: 1mA max
Blue
0V

NPN

Detector main circuit
Brown   24VDC
Black/White/Gray/Orange
Load   5...40VDC
Blue   0V

NPN

Detector main circuit
Brown   24V
PLC etc
Pink/Purple

PNP

Detector main circuit
Brown   24VDC
Black/White/Gray/Orange
Load
Blue   0V
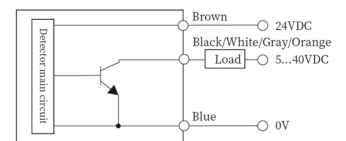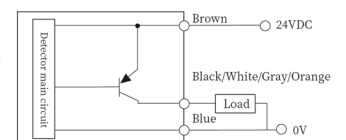
PNP

Detection head **CPES** series

Model specification

	CPES-C09

Specifications

Examination range	11...20mm
Min spot diameter	1mm@16mm
Light source	Composite LED:Red/Green/Blue(Lightsource wave length:665nm/520nm/465nm)
Minimum bending radius	R25mm
Ambient luminosity	Incandescent: maximum 1,000lux; Daylight: maximum 20,000lux
Ambient temperature	-10...55℃(No condensation)
Vibration resistance	10...55Hz, dual amplitude 1.5mm(2 hours each in X, Y, Z directions)
Protection degree	IP40
Material	Body: PC; Lens cover: Polyarylate
Weight	About 40g (with 2m cable)

Dimensions

unit:mm