

Fork registration sensors V5FB series



Highlights

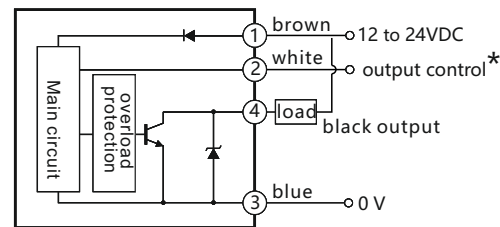
- 15 mm to 120 mm fork width
- Aluminum housing
- Plug connection
- Infrared light source 940 μm
- High power version available
- Sensitivity adjustment via potentiometer
- Use two separate wires for NO or NC output
- Output 2 LED indicators (green LED for no detection, red LED for object detection)
- High tolerance to hostile environments
- 12-24V DC power supply voltage
- 4 wire, NPN or PNP output (NO + NC)
- High switching frequency

Application

- High speed production lines objects counting
- Robotic arm zero point precise calibration
- Bottle cap positioning in high speed production line
- Prices counting of transparent , colorful , dark or shine objects surfaces

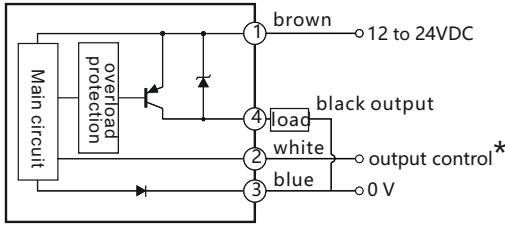
Input/Output circuit

NPN



*LIGHT-ON = NC
DARK-ON = NO

PNP



*LIGHT-ON = NC
DARK-ON = NO

Product parameters

Features :

Fork width:15 mm to 120mm
Aluminum housing
M8, 4 pins , Plug connectio n
Red light source
Sensiti vity adjustment via potentiometer
Simple fix NO /NC output via black or white colors
Output red LED indicator
High tolerance to host ile environments
10-36V DC supply
4 wires, PNP or NPN output
High switching frequency



Product characteristics					
Fork operating width (detection distance)	15	30	50	80	120
Product part number (PNP type)	V5FB1 5-PND	V5FB 30-PND	V5FB50 -PND	V5FB 80-PND	V5FB120 -PND
Product part number (NPN type)	V5FB1 5-ND	V5FB 30-ND	V5FB50 -ND	V5FB 80-ND	V5FB120 -ND
Min object size detection	1mm	2mm	3mm	3mm	3mm
Weight [g]	Aprox. 23g	Aprox. 30g	Aprox. 45g	Aprox. 55g	Aprox. 70g
Light source	Infrared light 940µm 0.3 ms Max.				
Response time					
Application					
Special feature	High frequency and accuracy object counting				
Function principle	Through beam type				
Electric data					
Operating power supply [V][mA]	10...36 VDC (100mA Max.)				
Current consumption [mA] Max.	15				
Isulation resistance	20mΩ min (500V DC)				
Reverse polarity protection	yes				
Diaelectric Strength	1000V AC , 60HZ for 60 sec				
Type of light	Infrared light				
Typ. lifetime [h]	50000				
Outputs					
Output function	PNP or NPN, NO/NC (selectable via wiring)				
Max. voltage drop switching output DC [V]	2.5				
Permanent current rating of switching output DC [mA]	200				
Switching frequency DC [Hz]	10000				
Short-circuit protection	yes				
Type of short-circuit protection	pulsed				
Output status	red LED				
Overload protection	yes				
Operating conditions					
Ambient storage temperature [°C]	-10... +55				
Operating temperature [°C]	-20... +85				
Protection	IP 65 Connector type; IP 67 Cable type				
Tests / approvals					
MTTF [years]	147				
Mechanical data					
Housing material	Aluminium alloy				
Lens material	PMMA				
Installation					
Fixed mounting holes [Ø]	4.5 mm				

Dimension

