Color Sensor

FD01

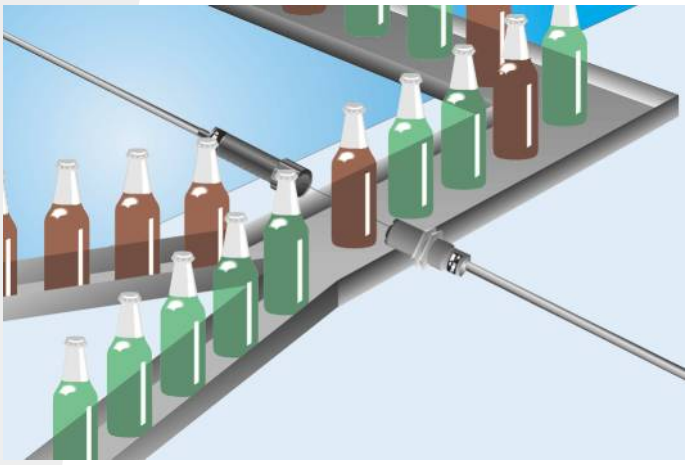
Part Number

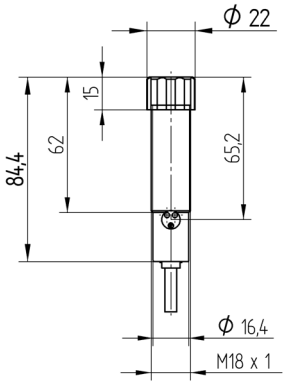
- **Adaptable for Glass Fiber Optic Cable**
- **Recognizes any number of colors**
- **Reflex and barrier operation mode are possible**
- **Three Analog Outputs**

Technical Data

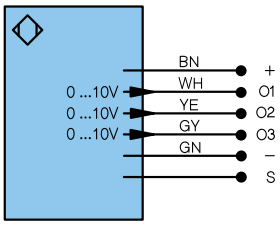
Optical Data	
Spectral Sensitivity	400...700 nm
Switching Hysteresis	< 15 %
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Opening Angle	12 °
Electrical Data	
Supply Voltage	20...30 V DC
Current Consumption (Ub = 24 V)	< 50 mA
Cut-Off Frequency	1 kHz
Response Time	500 µs
Temperature Drift	< 10 %
Temperature Range	-10...60 °C
Color Outputs	3
Analog Color Ratio Blue/Green	yes
Analog Color Ratio Red/Green	yes
Analog Gray Value	yes
Analog Output	0...10 V
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Stainless Steel
Full Encapsulation	yes
Degree of Protection	IP67
Connection	Prewired
Analog Output	●
Connection Diagram No.	804
Control Panel No.	D 8
Suiting Mounting Technology No.	150 160

The FD01 is part of a modular color sensor system, which can be adapted to any application with the help of glass fiber optic cable.





All dimensions in mm (1 mm = 0.03937 Inch)



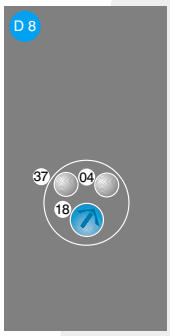
Legend

+	Supply Voltage +	U	Test Input	PoE	Power over Ethernet
–	Supply Voltage 0 V	Ū	Test Input inverted		
~	Supply Voltage (AC Voltage)	W	Trigger Input		
A	Switching Output (NO)	O	Analog Output		
Ā	Switching Output (NC)	O–	Ground for the Analog Output		Wire Colors according to DIN IEC 757
V	Contamination/Error Output (NO)	BZ	Block Discharge		
V̄	Contamination/Error Output (NC)	AMV	Valve Output	BK	Black
E	Input (analog or digital)	a	Valve Control Output +	BN	Brown
T	Teach Input	b	Valve Control Output 0 V	RD	Red
Z	Time Delay (activation)	SY	Synchronization	OG	Orange
S	Shielding	E+	Receiver-Line	YE	Yellow
RxD	Interface Receive Path	S+	Emitter-Line	GN	Green
TxD	Interface Send Path	⏚	Grounding	BU	Blue
RDY	Ready	SnR	Switching Distance Reduction	VT	Violet
GND	Ground	Rx+/–	Ethernet Receive Path	GY	Grey
CL	Clock	Tx+/–	Ethernet Send Path	WH	White
E/A	Output/Input programmable	Bus	Interfaces-Bus A(+)/B(–)	PK	Pink
	IO-Link	La	Emitted Light disengageable	GNYE	Green Yellow

Complementary Products

Dust extraction tube STAUBTUBUS-01
Evaluation Unit FN04
Glass Fiber Optic Cable FL
Halogen White Light Source FW01

Ctrl.Panel



04 = Function Indicator
18 = Light Adjustment
37 = Light Indicator

Specifications are subject to change without notice