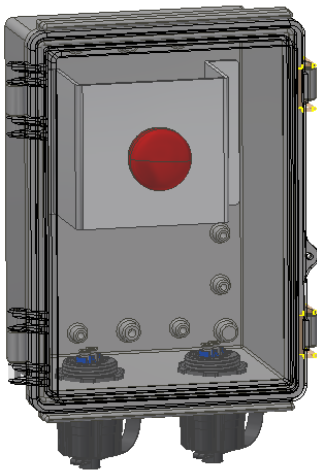


**MR 388** Emergency Stop Sensor



**Features**

- Environmentally sealed housing
- Can be used in industrial environments
- 100% passive sensing design - no electronics
- Immune to EMI, RFI, high Voltages and ground loops
- Link lengths to 10'000 meters

**Product Description**

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The MR388 series Fiber Optic Emergency Switch paired with a MR380 series Controller provides a new, innovative signaling solution that can be deployed in difficult and hazardous environments over long distances. The switch sensor employs a photo interrupt scheme operating over a duplex optical link that allows for reliable signal detection. This provides the same mechanical attributes typically associated with ubiquitous electrical micro switches.

The entire fiber optic sensor system offers a generous loss budget, allowing for long distances, complex routing, and daisy chaining of multiple switches.

The MR380 Controller is the active optical and electrical interface for the MR380 E-Stop, E-Actuator and other Signaling Sensor products.

**Applications**

- Medical MRI environment
- High voltage applications
- Long Distances
- Transformer power tap
- Oil, gas, and mines
- Valve position
- Process monitoring
- Hazardous environments
- Aerospace actuator

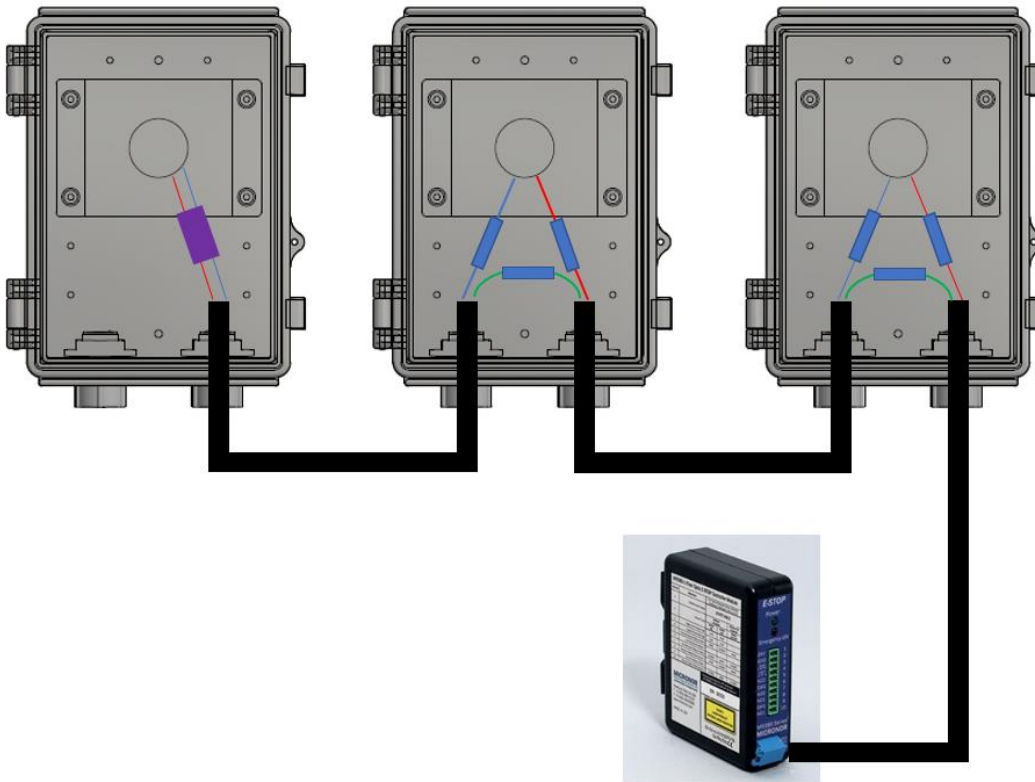


## Specifications

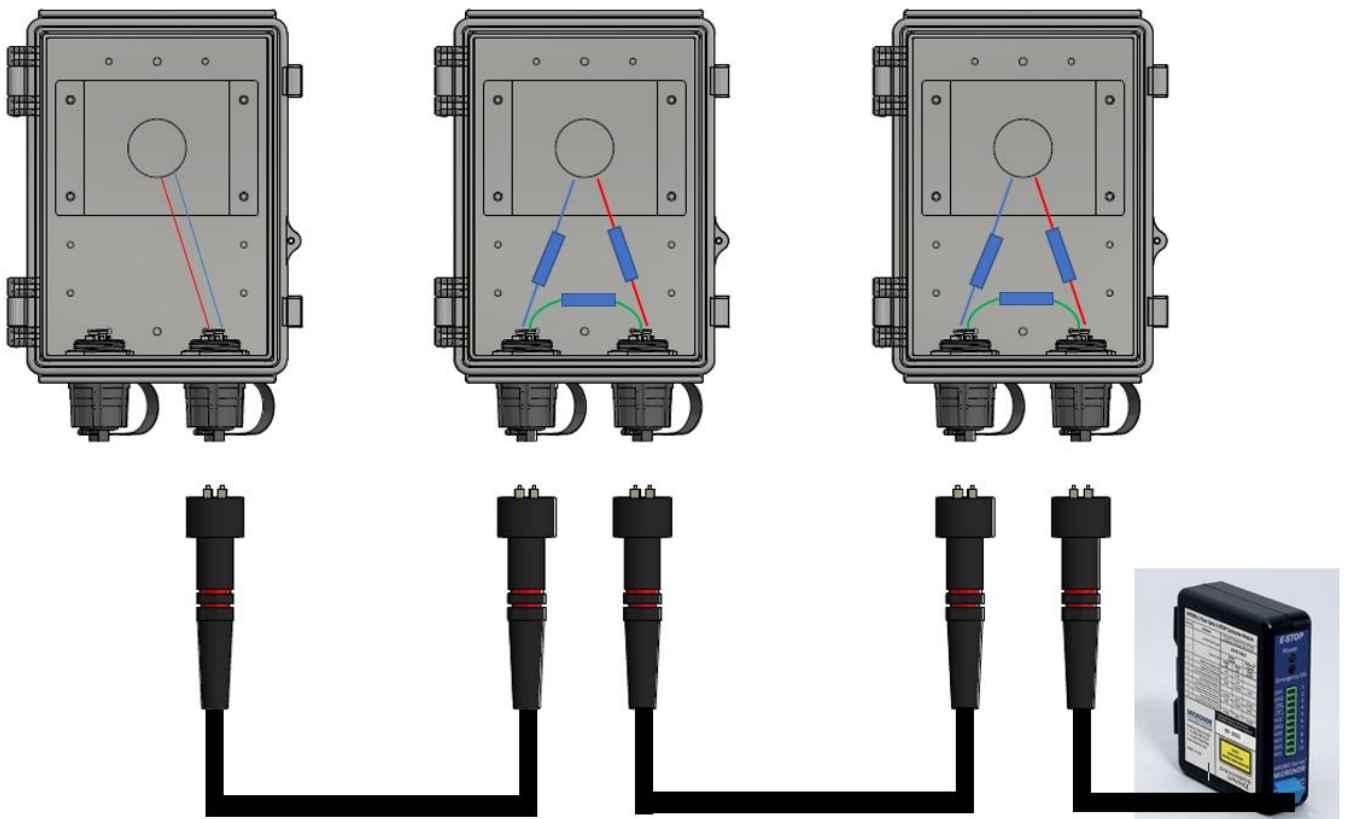
Functionality	
ISO 13850	ISO 13850 defines the characteristics and requirements for a traditional electromechanical E-STOP switch. The MR380 Sensor/Controller integrates the definition of purpose and functionality only
Functional States	MR380-1 Series DIN Rail Mount Controller Output States
Normal RESET (Up Position)	Red LED is OFF Digital 5V and 24V Outputs=HI Relay NC contacts=Closed, Relay NO contacts=Open
ACTIVATED (Down Position)	Red LED is ON
Broken Fiber, Loss of Optical Signal	Digital 5V and 24V Outputs=LOW
Controller Failure	Relay NC contacts=Open, Relay NO contacts=Closed
Optical Interface	
Interface	Duplex LC for pigtailed sensors ODVA IP-LC connector receptacle
Insertion Loss	For calculating System Loss Budget:
	IL=2.5dB max (2dB typical), 62.5/125 OM1 MM Fiber IL=5.0dB max (3dB typical), 9/125 OS1 SM Fiber IL=3.5dB max (3dB typical), 50/125 OM2/OM3 MM Fiber Consult Appl. Note AN118 for determining system loss budget and max. distance
Environmental	
Temperature/Humidity	-40°C to +65°C (-40°F to +150°F), 0-95% RH, Non-Condensing
Ingress Protection	Pigtail Version=IP61, Panel Mount Housing=IP65
Mechanical	
Housing	Aluminum body, anodized finish
Durability	100'000 operations min.
Physical	
Housing Dimension / Mounting	Consult Mechanical Reference Drawing
Unit Weight	TBD



System Overview Conduit Hubs Solutions



System Overview IPLC Receptacle Solutions

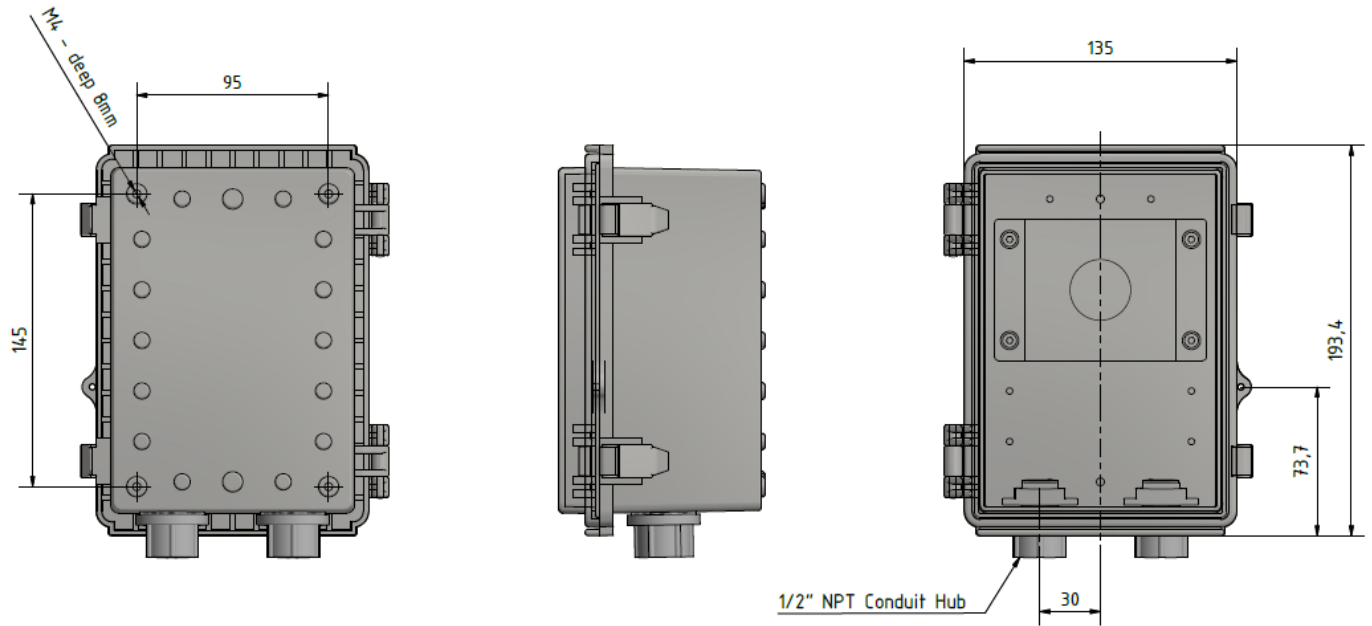


**MR 388 Emergency Stop Sensor**



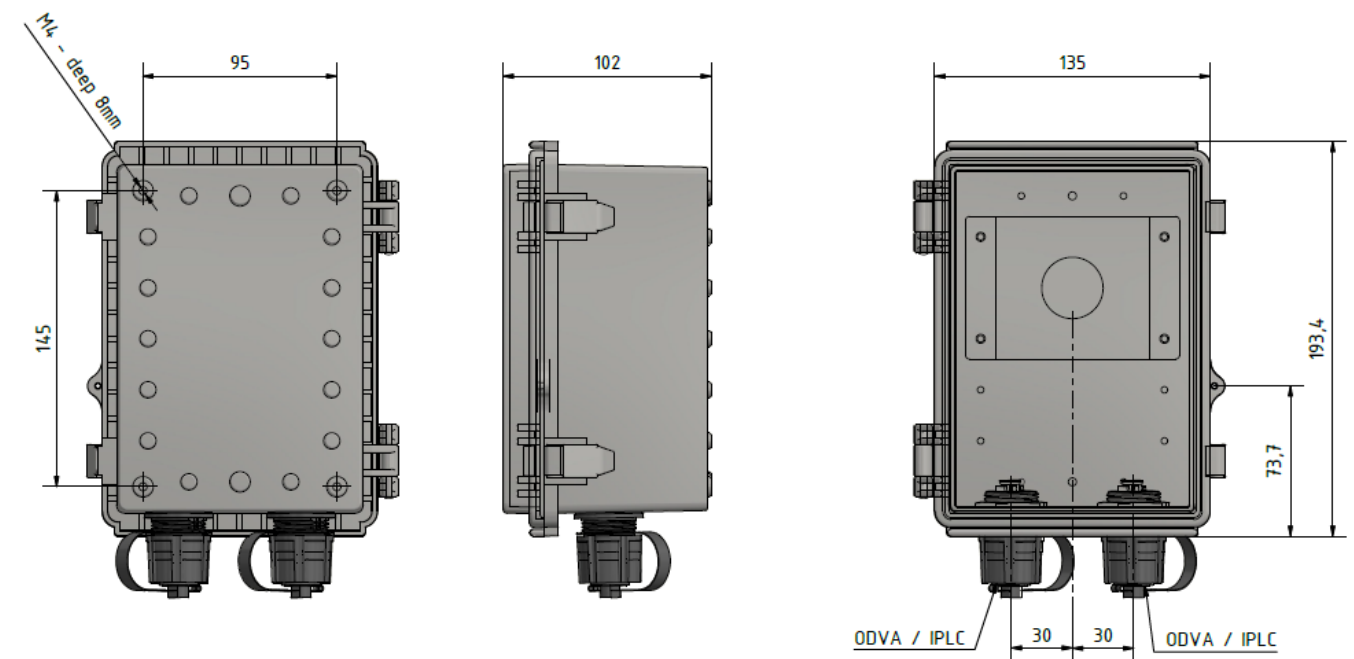
**Drawing [mm] Conduit Hub Version (dual plug version)**

Single version has same dimension, just with one plug.



**Drawing [mm] ODVA / IPLC Version (dual plug version)**

Single version has same dimension, just with one plug.



**MR 388** Emergency Stop Sensor



Micronor Sensors Ordering Code

Order Key		MR388 - 0 - 0 - 1	
		a	b c
<b>Configuration</b>			
<b>a</b>	<b>Fiber</b>		
	2	62.5/125 MMF (OM1)	
	3	9/125 SMF (OS1)	
<b>b</b>	<b>Mushroom Button Size</b>		
	S	∅30mm	Standard
	M	∅40mm	
<b>c</b>	<b>Housing</b>		
	D1	1x ODVA	
	H1	1x 1/2" NPT Conduit Hub	
	D2	2x ODVA	for serial used E-Stops
	H2	2x 1/2" NPT Conduit Hub	for serial used E-Stops

**Related Products**

- MR380-0-UNI OEM Controller for Fiber Optic Signaling Products Series MR380
- MR380-1-3 DIN Rail Mount Controller for Fiber Optic Signaling Products Series MR380
- MR386 Fiberoptic Microswitch
- MR387 Fiberoptic Emergency Stop
- MR398 Fiberoptic Cable Assemblies and Junction Boxes (Duplex LC, IP-LC)