

# SmartSight™ MV100

## TRANSFORMING VISION INTO INSIGHT

Integrating the best-in-class Sony Pregius global shutter sensors and GigE Vision modules, the SmartSight MV100 camera is ideal for subsea machine vision applications. Its low power consumption and integration flexibility are well suited for autonomous vehicles, while its compact size can fit anywhere. Multiple sensor and lens options allow the camera to be tailored to nearly any imaging application while robust isolated inputs and outputs allow easy synchronization with external devices such as LED strobe lights.

### Key Features



Global Shutter



Power over Ethernet



Triggering and Synchronization



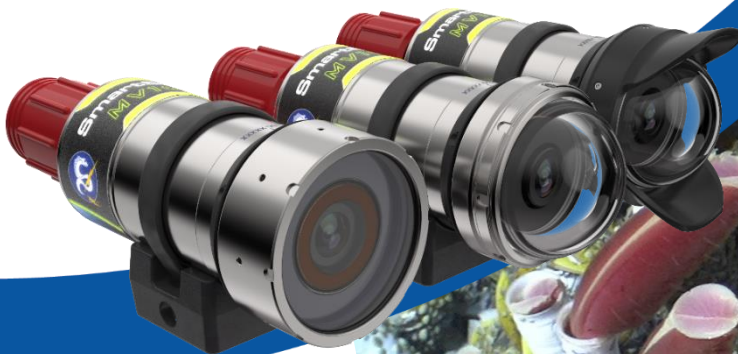
Highly Configurable



Machine Vision Ready



Available SDK



## Specifications

Optical Specifications				
Model	MV100-D-T-BFS		MV100-F-T-BFS	
<i>Lens Options</i>	2.3mm F/2.8	2.7mm F/2.9	2.7mm F/2.9	6.0mm F/5.6
<i>Sensor Options</i>	0.4MP, 1.6MP, 2.3MP, 3.2MP Global Shutter			
Environmental Specifications				
Model	MV100-D-T-BFS		MV100-F-T-BFS	
<i>Max Depth</i>	6000 m (11,000 m option)		6000 m	
<i>Operating Temp</i>	-10 to 40°C [14°F to 104°F]			
<i>Storage Temp</i>	-30 to 60°C [-22°F to 140°F]			
Mechanical Specifications				
<i>Housing</i>	Titanium housing		Titanium housing	
<i>Optical Port</i>	Borosilicate Dome Port		Borosilicate Flat Port	
<i>Mounting Bracket</i>	Saddle bracket with either metric M6 or 1/4-20 imperial titanium inserts			
<i>Weight in Air</i>	0.65 kg [1.4 lbs.]		0.65 kg [1.4 lbs.]	
<i>Weight in Water</i>	0.37 kg [0.84 lbs.]		0.44 kg [1.0 lbs.]	
Electrical Specifications				
<i>Interface</i>	10/100/1000 BaseT Ethernet, GigE Vision v1.2 Compliant			
<i>Inputs/Outputs</i>	Isolated: 1 IN, 1 OUT			
<i>Power</i>	2.7W maximum			
<i>Voltage</i>	10-48VDC, PoE IEEE802.3af-2003			
<i>Standard Connector</i>	SubConn DBH13M Stainless Steel			

## SENSOR OPTIONS

Sensor Option	Sony IMX287	Sony IMX273	Sony IMX392	Sony IMX265
Sensor Resolution	0.4MP	1.6MP	2.3MP	3.2MP
Pixel Array	720 x 540	1440 x 1080	1920 x 1200	2048 x 1536
Pixel Size	6.9 µm x 6.9 µm	6.9 µm x 6.9 µm	3.45 µm x 3.45 µm	3.45 µm x 3.45 µm
Frame Rate	286 FPS (291 FPS)	71.6 FPS (75.8 FPS)	48.3 FPS (52 FPS)	35.4 FPS (38 FPS)
LLC Frame Rate <sup>1</sup>	350	111	80	51
Sensor Type	Color, Mono	Color, Mono	Color, Mono	Color, Mono
Shutter	Global	Global	Global	Global

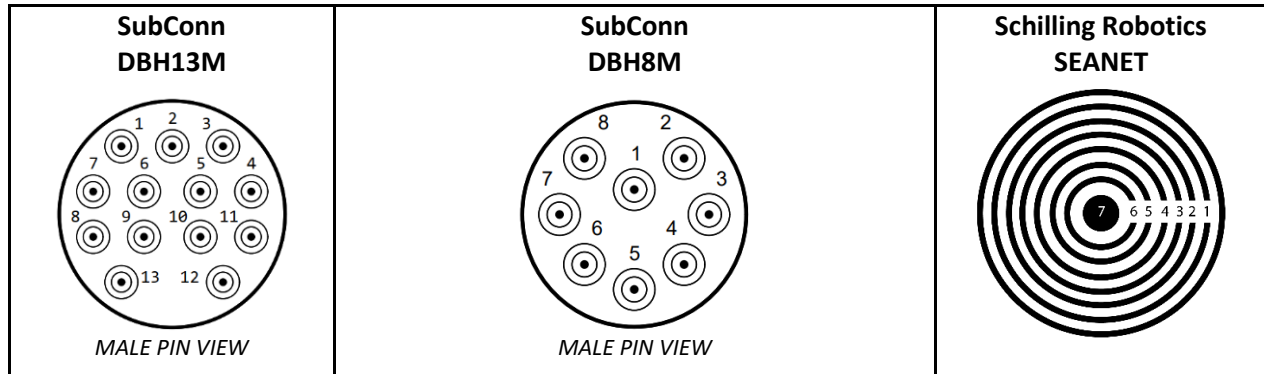
## FIELD OF VIEW REFERENCE

Sensor Option	6mm/Flat	2.7mm/Flat	2.7/Dome	2.3mm/Dome
0.4 MP	32°	67°	101°	117°
1.6 MP	32°	67°	101°	117°
2.3 MP	40°	80°	105°	125°
3.2 MP	43°	83°	120°	N/A

<sup>1</sup> LLC = Lossless Compression. Option only available on select BFS type modules.

# Standard Pinouts

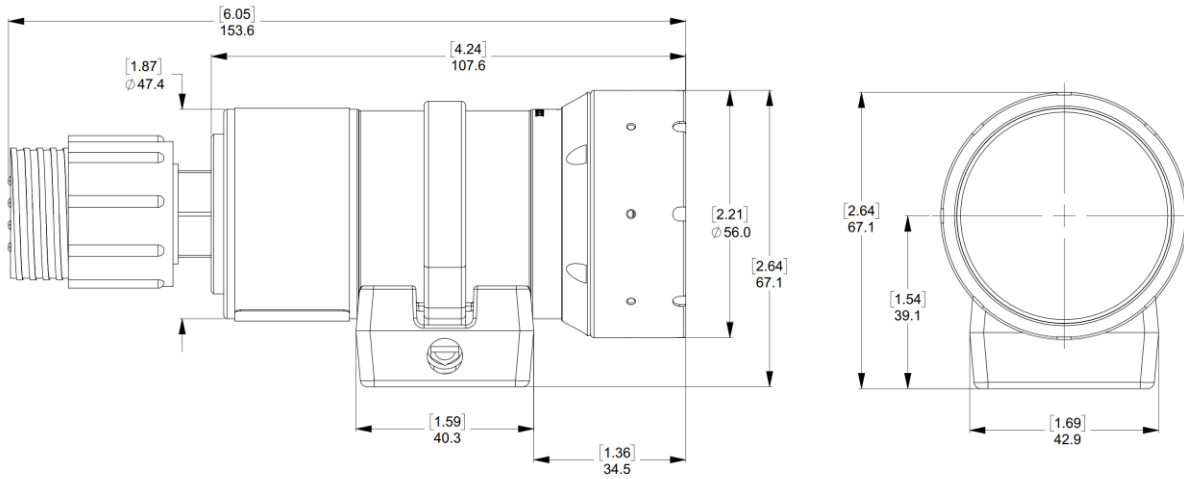
## HD-SDI COAX AND FLEXLINK CONFIGURATIONS



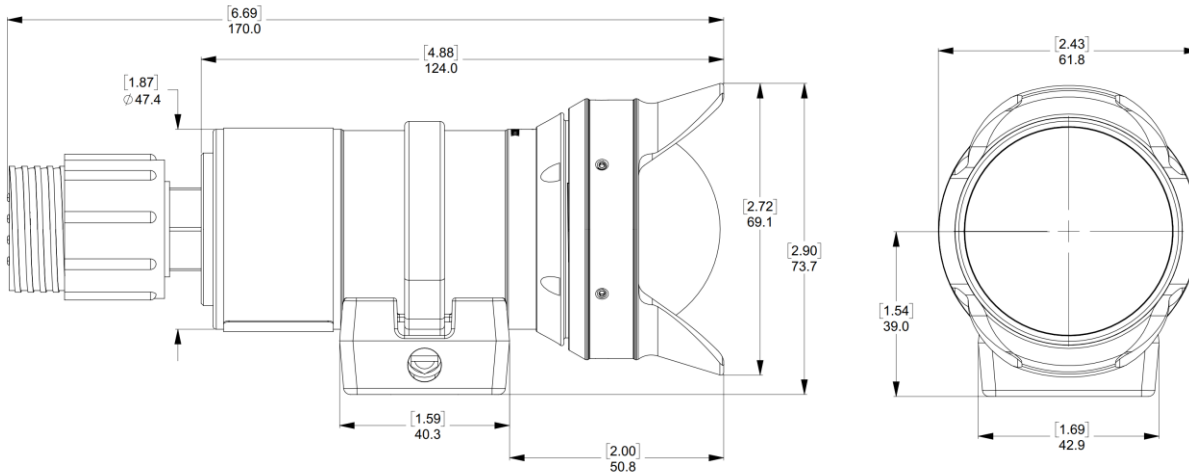
PIN	Ethernet Camera Discrete Power 10/100/1000 Mbps	Ethernet Camera Discrete Power 10/100Mbps	Ethernet Camera PoE 10/100/1000 Mbps	IP Camera NIM
1	DC-	DC-	TxRx D-   0V PoE	DC+
2	SCREEN	DC-	TxRx D+   0V PoE	DC-
3	DC+	DC+	TxRx C+   48V PoE	CHASSIS
4	TxRx D-	DC+	TxRx C-   48V PoE	RD-
5	TxRx D+	TD-	TxRx A-   TD-	RD+
6	TxRx C+	TD+	TxRx A+   TD+	TD-
7	TxRx C-	RD-	TxRx B-   RD-	TD+
8	TxRx A-	RD+	TxRx B+   RD+	
9	TxRx A+			
10	TxRx B-			
11	TxRx B+			
12	OPTO OUT			
13	OPTO IN			
ID	<b>13C009</b>	<b>08E021</b>	<b>08E025</b>	<b>07E004</b>

# Dimensions

## FLAT PORT



## DOME PORT WITH COWL



## MOUNTING BRACKET

