

SIGHT20-100



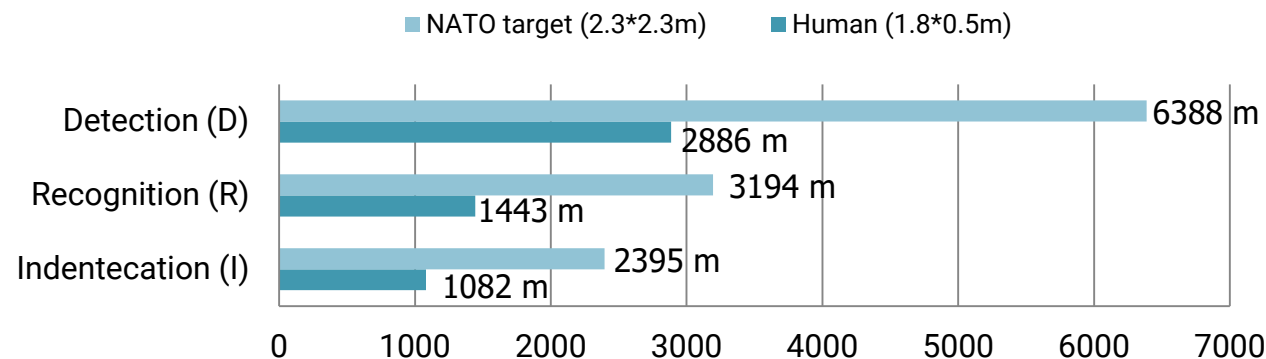
SIGHT is our cutting edge weapon sight which was specially developed for remote control Weapon systems (RCWS).

SIGHT is a multi sensor electro-optical payload designed for easy integration in remote controlled weapon stations and long range surveillance.

SIGHT20-100 SYSTEM INCLUDES

DAY Sensor	Global Shutter x36 Zoom 59.0° to 2.4° FOV
LWIR Sensor	640x512 12µm 20-100mm Cont. x5 Zoom 22.5° to 4.4° FOV
LRF	8.6 KM NATO TARGET, 0.5-0.01m PRECISION
PSU	9-40 VDC MIL-STD-461; MIL-STD-1275; MIL-STD-704
CHASSIS	RAL 7004, Nitrogen purged, MIL.STD, CNC aluminum with hermetic D38999 Stainless Steel connector Internal Ethernet Switch
INTERFACE	Ethernet, ONVIF, RTSP
SOFTWARE	Ex-Sight Application, SDK Open Source C#

SIGHT20-100 DRI LWIR (m)



Calculation according to Johnson Criteria at 100mm == 8.8° FOV

SIGHT SYSTEM SPECIFICATION



SIGHT20-100

HD GLOBAL SHUTTER X36 DAY SENSOR

1/2.8" 2MP PROGRESSIVE SCAN GLOBAL SHUTTER CMOS, 1600X1300@60FPS/30FPS, H.265/H264 COMPRESSION, LENS F=4.5MM~162MM, OPTICAL ZOOM 36X, F1.5 (WIDE)~F4.0 (TELE), IC, PRIVACY MASK FUCTION, HIGH LIGHT COMPENSATION, WDR/BLC/HLC/AGC/3D-DNR, ZOOM SPEED APPROXIMATELY 3.5S (OPTICAL LENS, WIDE TO TELE), COLOR:0.001 LUX @(F1.5,AGC ON); B/W:0.0005LUX @(F1.5,AGC ON), SHUTTER 1/25S TO 1/100,000S, ANGLE OF VIEW (D, H, V) 59.0° ~ 2.4° (WIDE~TELE), MOTION DETECTION / DEFOG FUNCTION, SUPPORTS VISCA, ONVIF, PELCO PROTOCOL, VIDEO OUT IP

UNCOOLED LWIR SENSOR x5 Zoom 22.5° to 4.4° FOV

RESOLUTION 640X512 PIXEL, 12μm PIXEL PITCH, FRAME RATE 50HZ, SPECTRAL BAND 8~4uM, NETD≤50MK@25°C, F#1.0. BRIGHTNESS AND CONTRAST ADJUSTMENT, IMAGE PROCESSING: NUC/DNR/DDE, ANALOG VIDEO OUTPUT 1-CHANNEL PAL/NTSC, DIGITAL VIDEO OUTPUT LVCMOS/BT.656/BT.1120/LVDS, COMMUNICATION INTERFACE ETHERNET
LWIR LENS 20~100MM AUTOFOCUS LENS / F1.2 640*512, 12μm

CONNECTION INTERFACE

HERMETIC Type C: D38999/23YE35PN, ETHERNET/RTSP/ONVIF VIDEO & CONTROL

PSU (POWER SUPPLY UNIT)

9-40 VDC 120W Max. MIL.STD704, MIL.STD810G POWER STABILIZER

ENVIRONMENTAL

IP-67, NITROGEN PURGED, HERMETIC SEALED, ALUMINUM CHASSIS (6061) STAINLESS STEEL SCREWS (N316)

32KM LRF (LASER RANGE FINDER)

EYE SAFE 8.6KM NATO TARGET, 0.5-0.01M PRECISION, 0.6 MRAD BEAM DIVERGENCE, 1M RESOLUTION, TARGET DISCRIMINATION <30M, ALIGNMENT POINTER, SAPPHIRE WINDOW

PART NUMBERING

SL-640-100-36

SL-[RES]-[LENS]-[ZOOM-DS]-[LRF]

[RES] LWIR RESOLUTION

640 (LWIR 640x512 , 5.8mm)

[LENS] LWIR LENS

100 Focal Length 20mm~100mm

[ZOOM-DS] ZOOM DAY SENSOR

Global Shutter x36 Optical Zoom

[LRF] LRF

Blank - No LRF

LR1 8Km NATO Target

LR6 6Km NATO Target

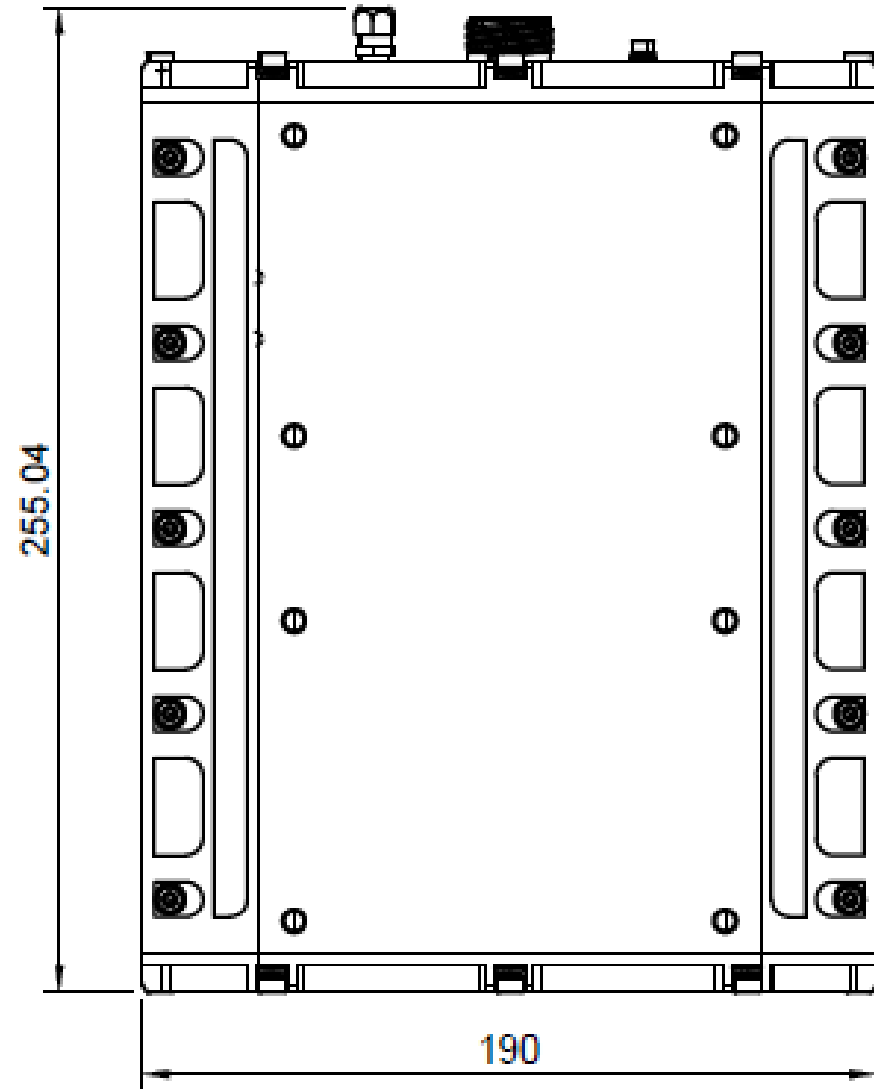
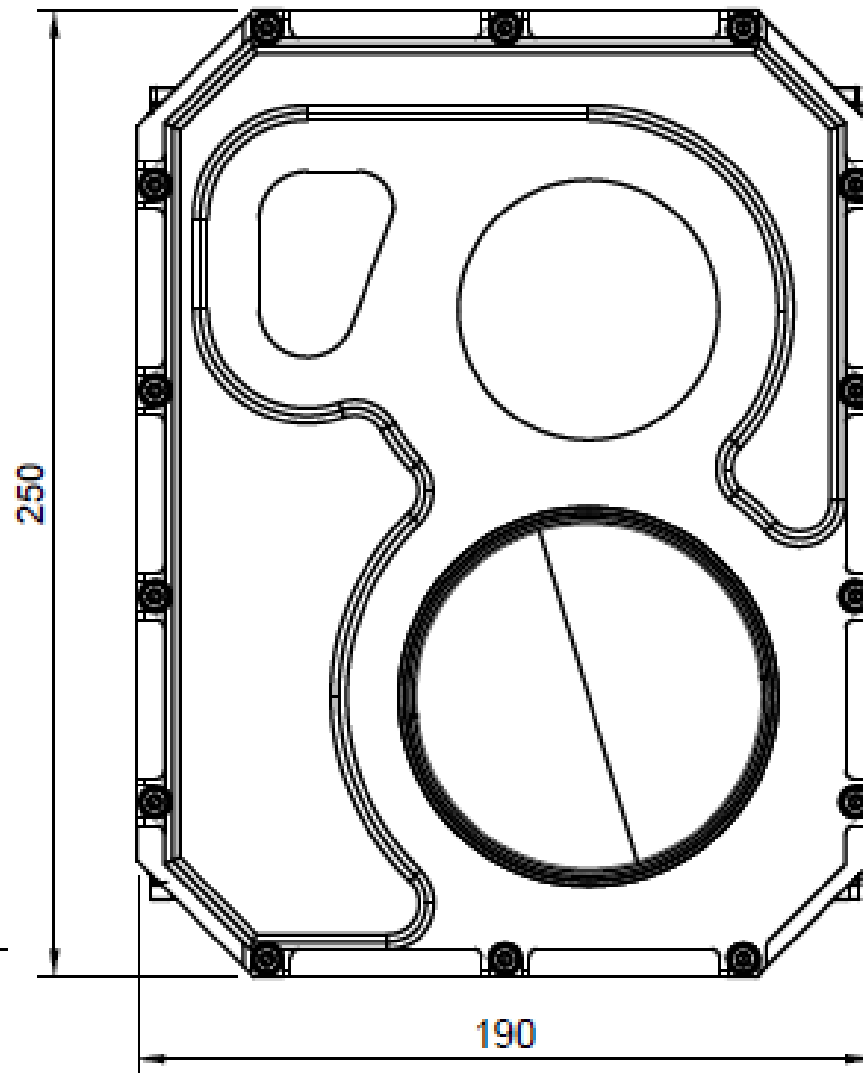
SYSTEM OVERVIEW

DIMENSIONS

LxWxH (mm) 250x190x255 mm, WEIGHT 9,000 gm



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SYSTEM OVERVIEW



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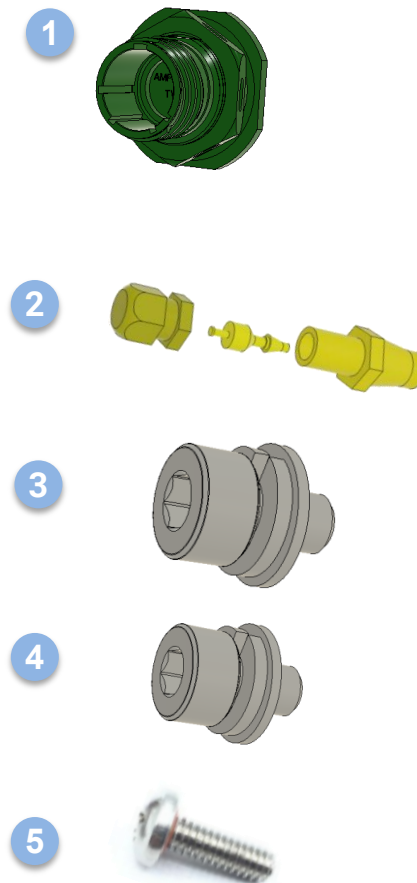
PART NUMBERING INDEX

#	P/N	DESCRIPTION
1	D38999/23YE35PN	Mil. Std Stainless Steel connector
2	MS51377-2 MS51607-1 MS20813-1	Nitrogen Valve Core Nitrogen MS Valves Nitrogen Fitting
3	M5x10 Screw, Socket Head	Ground screw
4	M3x6 Screw, Socket Head	Security cable Screw
5	MS3212-25	Nitrogen self locking screw military



PANEL PIN LAYOUT D38999/23YC35PN Stainless Steel Hermetic Connector

PIN#	DESCRIPTION
1	NC
2	NC
3	(+9 TO +36VDC) INPUT POWER
4	GND INPUT POWER
5	(+9 TO +36VDC) INPUT POWER
6	GND INPUT POWER
7	NC
8	NC
9	ETHERNET2 (1) TX+
10	ETHERNET2 (2) TX-
11	ETHERNET2 (3) RX+
12	ETHERNET2 (6) RX-
13	NC
14	NC
15	ETHERNET1 (1) TX+
16	ETHERNET1 (2) TX-
17	ETHERNET1 (3) RX+
18	ETHERNET1 (6) RX-
19	NC
20	NC
21	NC
22	NC





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Johnson Criteria

12.0micron		
Detector Size	640	512

	Detection	Recognition	Identification
Lines	3	6	8

Optics Focal Length in mm	IFOV Rad	HFOV Deg	VFOV Deg	Diagonal	Nato Target Size (m)		Human Target Size (m)			
					2.3	2.3	1.8	0.6	0.6	
					Nato Target			Human Target		
					Detection in meters	Recognition in meters	Identify in meters	Detection in meters	Recognition in meters	Identify in meters
20	0.000600	21.7	16.3	27.2	1277.8	638.9	479.2	577.4	288.7	216.5
40	0.000300	11.0	8.2	13.7	2555.6	1277.8	958.3	1154.7	577.4	433.0
50	0.000240	8.8	6.6	11.0	3194.4	1597.2	1197.9	1443.4	721.7	541.3
60	0.000200	7.3	5.5	9.2	3833.3	1916.7	1437.5	1732.1	866.0	649.5
70	0.000171	6.3	4.7	7.9	4472.2	2236.1	1677.1	2020.7	1010.4	757.8
80	0.000150	5.5	4.1	6.9	5111.1	2555.6	1916.7	2309.4	1154.7	866.0
90	0.000133	4.9	3.7	6.1	5750.0	2875.0	2156.3	2598.1	1299.0	974.3
100	0.000120	4.4	3.3	5.5	6388.9	3194.4	2395.8	2886.8	1443.4	1082.5
150	0.000080	2.9	2.2	3.7	9583.3	4791.7	3593.8	4330.1	2165.1	1623.8
180	0.000067	2.4	1.8	3.1	11500.0	5750.0	4312.5	5196.2	2598.1	1948.6
225	0.000053	2.0	1.5	2.4	14375.0	7187.5	5390.6	6495.2	3247.6	2435.7
260	0.000046	1.7	1.3	2.1	16611.1	8305.6	6229.2	7505.6	3752.8	2814.6
300	0.000040	1.5	1.1	1.8	19166.7	9583.3	7187.5	8660.3	4330.1	3247.6
340	0.000035	1.3	1.0	1.6	21722.2	10861.1	8145.8	9815.0	4907.5	3680.6
380	0.000032	1.2	0.9	1.4	24277.8	12138.9	9104.2	10969.7	5484.8	4113.6
420	0.000029	1.0	0.8	1.3	26833.3	13416.7	10062.5	12124.4	6062.2	4546.6
460	0.000026	1.0	0.7	1.2	29388.9	14694.4	11020.8	13279.1	6639.5	4979.6
500	0.000024	0.9	0.7	1.1	31944.4	15972.2	11979.2	14433.8	7216.9	5412.7
540	0.000022	0.8	0.6	1.0	34500.0	17250.0	12937.5	15588.5	7794.2	5845.7
550	0.000022	0.8	0.6	1.0	35138.9	17569.4	13177.1	15877.1	7938.6	5953.9