



SPHERE-F

LWIR UNCOOLED GIMBAL

- GLOBAL SHUTTER DAY 1600x1300 x36 Zoom
- UNCOOLED LWIR 12 μ m, 640x512, FIXED LENS
- LENS OPTION: 5.8 mm/25mm/35mm
- LRF up to 2KM NATO Target
- ETHERNET INTERFACE
- IP-67 NITROGEN PURGED MARINE GRADE CHASSIS



LWIR UNCOOLED GIMBAL

- Full HD Global Shutter 1600x1300, 60FPS, x36 Zoom 4,5mm-162mm sensor H-FOV 59,0° to 2,4° V-FOV 33,6° to 1,4°; Sapphire Window
- LWIR 640x512 Fixed Lens: 5.8 | 25 | 35mm
- LRF up to 2KM NATO Target
- Light Weight Rugged Aluminum structure
- Ex-Sight DESK Application, SDK Open Source C#
- IP-67, MIL.STD, with hermetic D38999 Stainless Steel connector
- Ethernet interface
- Operating temp -20°C to +80°C
- **Dimensions (LxWxH, mm)** 245x216x347
Ø 185
- **Weight** 13 Kg

* Optional Configuration

SYSTEM OVERVIEW

LRF

LASER RANGE FINDER
Up to 2KM
NATO Target
SAPPHIRE WINDOW

LWIR SENSOR

UNCOOLED LWIR 12 μ m
640x512

LENS OPTION:

5.8 | 25 | 35mm

DAY ZOOM SENSOR

GLOBAL SHUTTER 60FPS
1600x1300
x36 ZOOM
4,5mm-162mm
SAPPHIRE WINDOW

SHOCK ABSORBERS

- EX-SIGHT DESK APPLICATION, SDK OPEN SOURCE C#
- LASER POINTER ON LRF CAMERA
- ETHERNET & ANALOG INTERFACE
- IP-67

SPHERE-F	
DAY SENSOR	Global Shutter 60FPS 1600x1300 X36 Zoom 4,5mm-162mm
FIELD OF VIEW	H-FOV 59,0° to 2,4° V-FOV 33,6° to 1,4°
THERMAL SENSOR	UNCOOLED LWIR 12 μm 640x512 FIXED LENS 5.8mm / 25mm/ 35mm
FIELD OF VIEW	FOV 65° / FOV 17.5° / FOV12.5°
LRF	Up to 2 KM NATO Target
GNSS / INS	RUGGED INS GPS IMU *
SPEED	Up to 150°/Sec
POWER	24-48VDC
CONNECTOR	Hermetic Stainless Steel D38999/23YC35PN
IP RATE	IP67



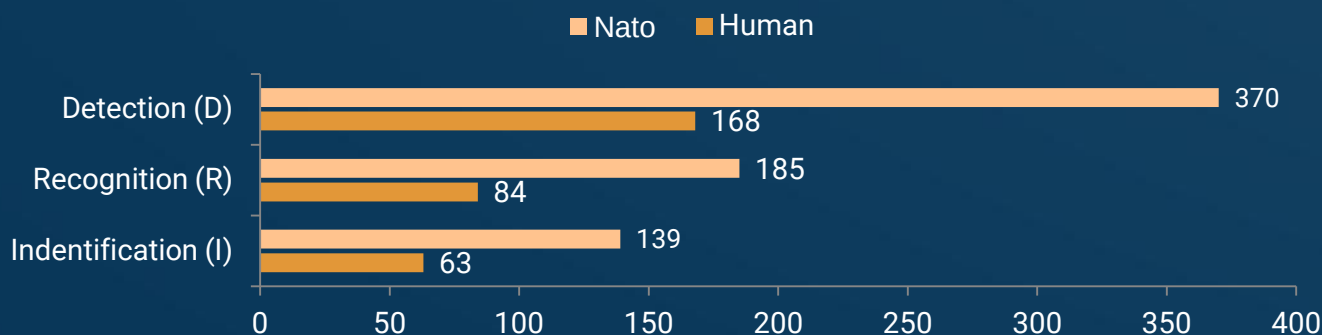
-  185 (mm)
-  13 (kg)
-  245x216x347 (mm)

SPHERESERIES PART NUMBERING

SPHERE-F		SPF-640-5.8-36-N- RAL9005		
SPF-[RES]-[LENS]-[ZOOM-DS]-[LRF] - [RAL]				
[RES]	LWIR RESOLUTION	640 (LWIR 640x512)		
[LENS]	LWIR LENS	5.8mm FOV 70°	25mm FOV 17.5°	35mm FOV 12.5°
[ZOOM-DS]	ZOOM DAY SENSOR	36 - x36 Optical Zoom, Global Shutter		
[LRF]	LRF	N - None		8 - 8Km NATO Target
[RAL]	COLOR	RAL 9005 JET BLACK		RAL 6014 YELLOW OLIVE

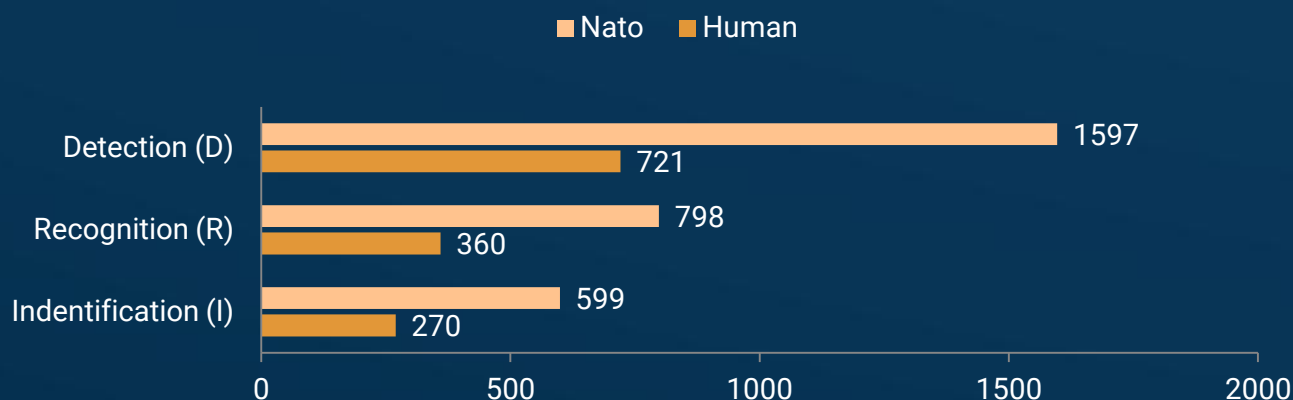
DRI LWIR (m) 640x512 LENS 5,8 mm

FOV 65,24° x 54,22°



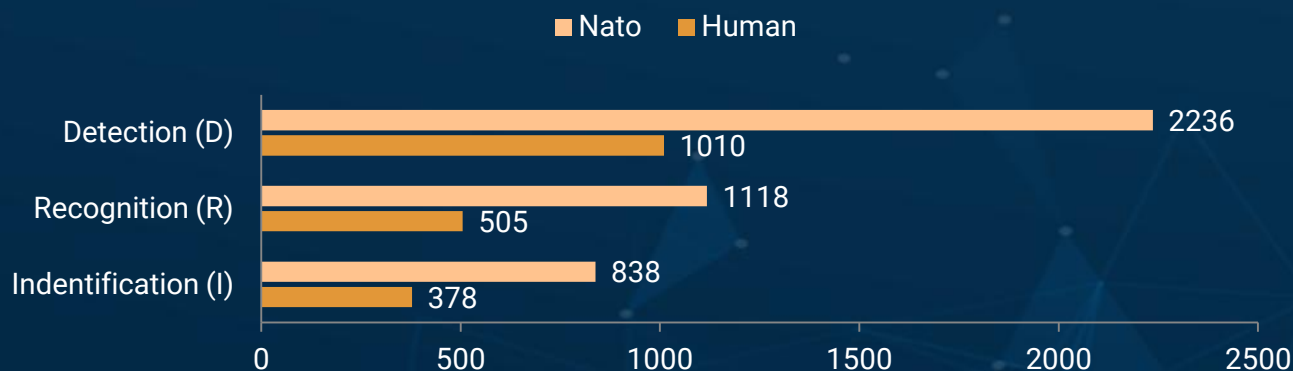
DRI LWIR (m) 640x512 LENS 25 mm

FOV 17,46° x 14,01°

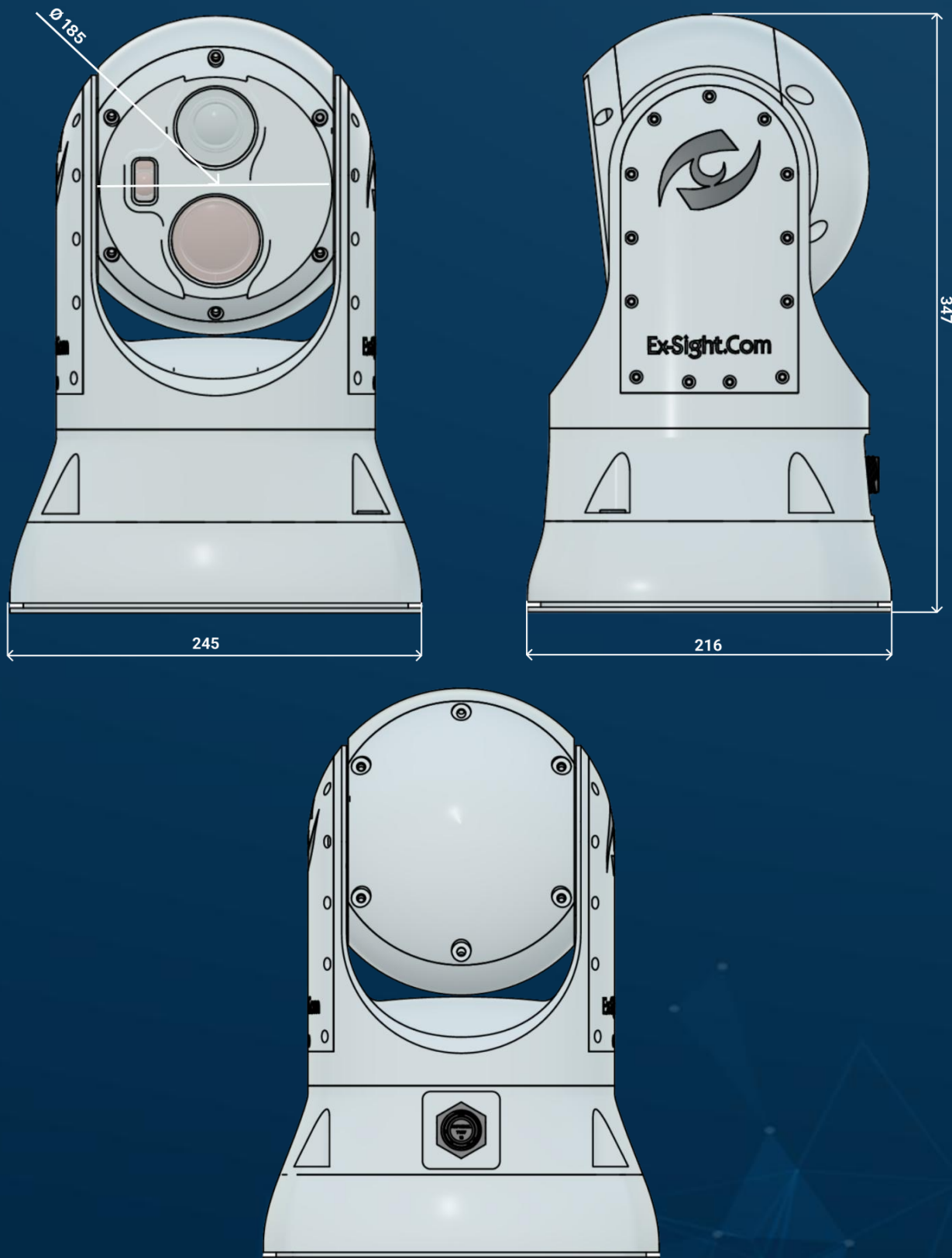


DRI LWIR (m) 640x512 LENS 35 mm

FOV 12,52° x 10,03°



DIMENSIONS (LxWxH, mm) 245x216x347 ø 185

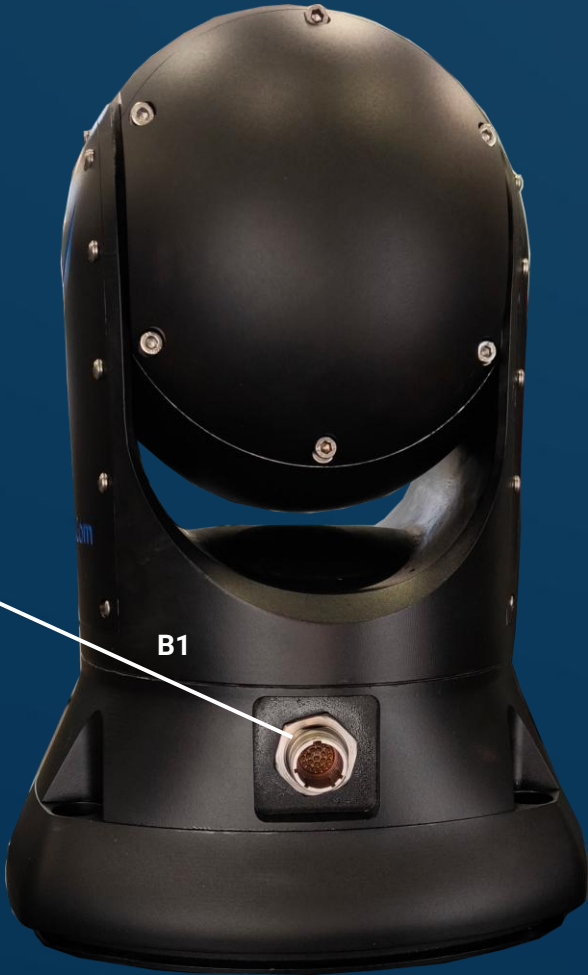


SPHEREF
SYSTEM OVERVIEW

D38999/23YC35PN

Mil. Std Stainless
Steel connector

B1 (Base)



PANEL PIN LAYOUT (B1)
D38999/23YC35PN Stainless Steel Hermetic Connector

PIN	DESCRIPTION
1	+48VDC POWER IN
2	+48VDC POWER IN
3	+48VDC POWER IN
4	+48VDC POWER IN
5	+48VDC POWER IN
6	+48VDC POWER IN
7	+48VDC POWER IN
8	GND POWER IN
9	GND POWER IN
10	GND POWER IN
11	GND POWER IN

PIN	DESCRIPTION
12	GND POWER IN
13	GND POWER IN
14	GND POWER IN
15	ETHERNET1 (1) TX+
16	ETHERNET1 (2) TX-
17	ETHERNET1 (3) RX+
18	NC
19	NC
20	ETHERNET1 (6) RX-
21	NC
22	NC

SPHERESERIES

CABLE PIN LAYOUT D38999/26KC35SN

Stainless Steel Hermetic Connector

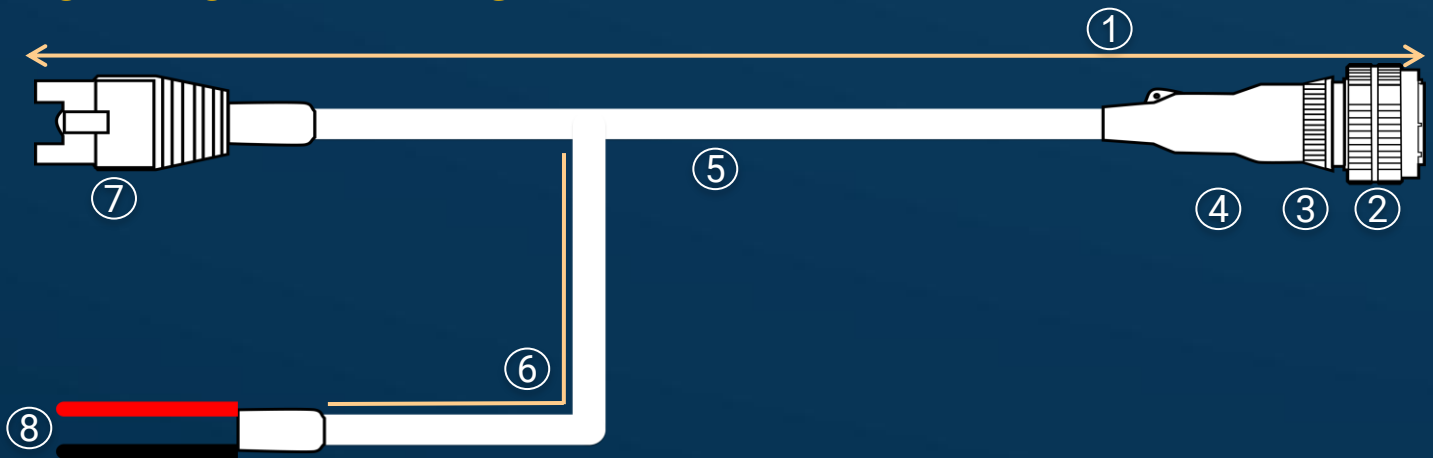
SPHERE-F-CABLE-[LEN1]

SPHERR-F-CABLE is RQT1601875 Cable (6*20AWG + SPEC 55) with specified length.

The cable includes connector D38999/26KC35SN Mil. Std Stainless Steel that connects to the connector D38999/23YC35PN on the SPHERE-F.

On the other side of the cable there is a connection to Power 9-36V (open black wire + open red wire) and RJ45 Giga Ethernet connection

MECHANICAL DRAWING



CABLE PART NUMBERING INDEX

#	P/N	DESCRIPTION
1	[LEN1]	Total Cable length (meters)
2	D38999/26KC35SN	Mil. Std Stainless Steel connector (200°C, firewall capability, 500 hour salt spray resistance)
3	RQND-40S2-S-1307	Stainless Steel Backshell
4	202K132-25-0/202K132-25-0	Boot
5	Cable RQT1601875	6*20AWG + SPEC55 (RAYCHEM DR-25)
6	Cable RQT1601875	6*20AWG + SPEC55 (1m) (RAYCHEM DR-25)
7	RJ45 Ethernet	Main Ethernet connector
8	Power Wires	20AWG For 9V-36V input