


SA SERIES

360 PANORAMIC 24/7 SITUATIONAL AWARENESS



	 SA360	 SA180
LOW LIGHT DAY	SIX (6) 1920x1080 Full HD 30 FPS SAPPHIRE Window	THREE (3) 1920x1080 Full HD 30 FPS SAPPHIRE Window
LWIR NIGHT	SIX (6) 1280x1024 or 640x512 12µm 30 FPS Germanium Window	THREE (3) 1280x1024 or 640x512 12µm 30 FPS Germanium Window
FOV	420° Deg. (H) 6 x 70° FOV (H) 420° (V) 46°	210° Deg. (H) 3 x 70° FOV (H) 210° (V) 46°
NATO/HUMAN DETECTION (640) DETECTION (1280)	370m / 167m 830m / 375m	370m / 167m 830m / 375m
STABILIZED POWER	2A@24VDC (9-40VDC)	1A@24VDC (9-40VDC)
DIMENSIONS (mm)	470x470x185	483x270x237
ETHERNET SWITCH	Gigabit Ethernet Switch 10/100/1000T	
CONNECTOR	Single Stainless Steel D38999/23YD35PN	
WEIGHT (Kg)	30 kg	16 kg
CHASSIS	CNC ALUMINUM, ANTI SALT BLACK POWDER PAINT	
IP RATE	IP67 Nitrogen Purged	

SA180



SA180

180° REAL-TIME SITUATIONAL AWARENESS SYSTEM

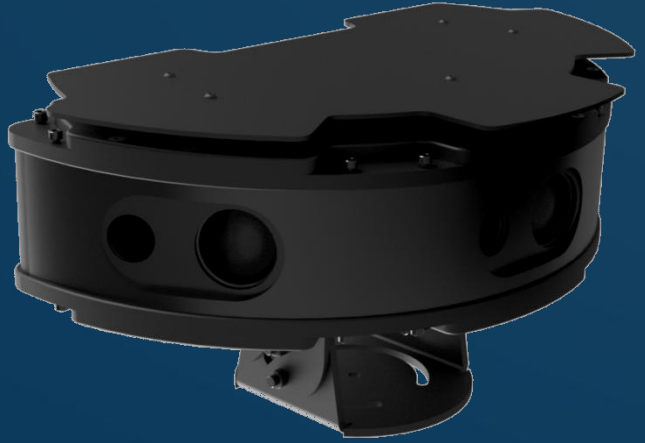
SA-180 is a constant naval guard, real time object detection video analyzer which helps reading and understanding risks, based on real time video data from multiple sources and sensors.

SA-180 is based on 12 Ethernet IP sensors.

Three LWIR 1280x1024 or 640x512 and three Low Light day 1920x1080 Full HD sensors.

The sensors can be streamed directly or partially based on RTSP/ONVIF streaming protocol.

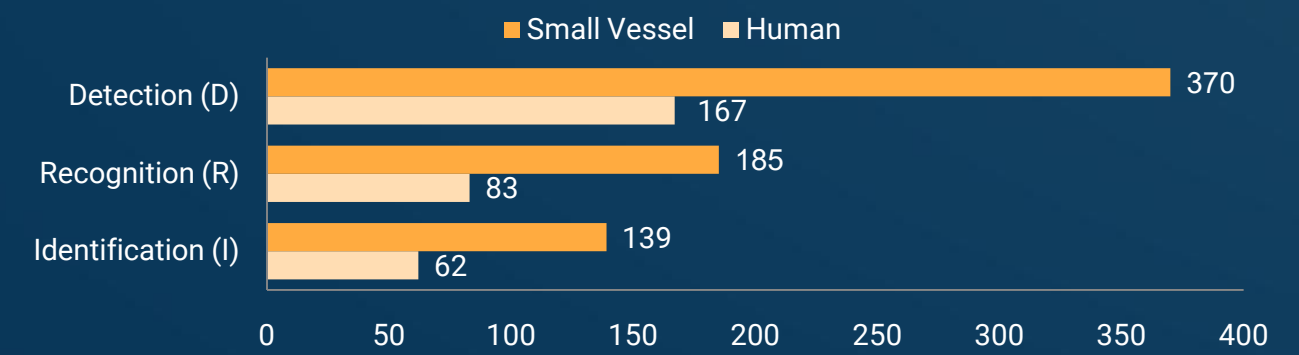
The system can detect, track and classify targets on both channels, day and night.



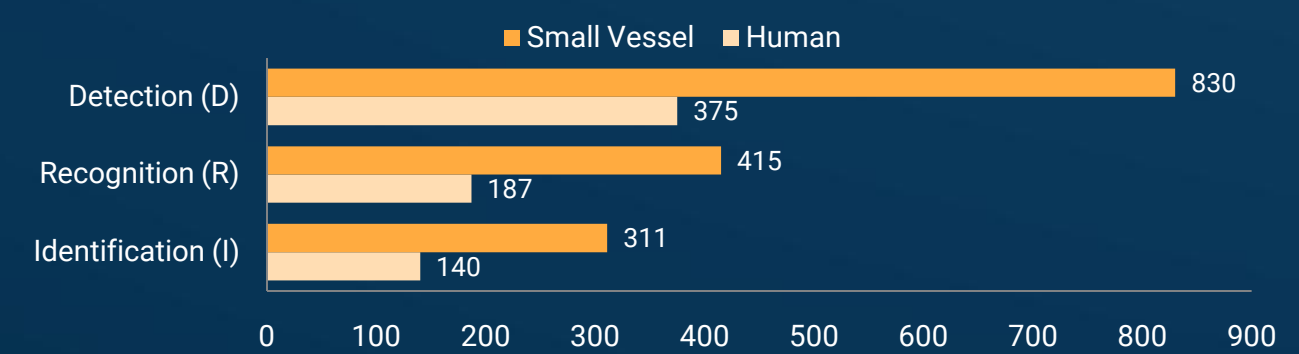
180° REAL-TIME SITUATIONAL AWARENESS SYSTEM

- Day & Night target recognition, detect static and dynamic targets
- Ethernet connectivity, modular architecture, single cable connection
- Real time three 1920x1080 Full-HD low light sensors 70 Deg FOV, Sapphire window
- Real time three 1280x1024 / 640x512 LWIR (Thermal) sensors 70 Deg FOV with Germanium window
- Optional True North INS GPS
- Optional AIxNPU Embedded object detection & classification
- Optional Distance estimation using EO and TI sensors
- Optional Visual RADAR view
- IP-67 Hermetic sealed chassis, Nitrogen purged, MIL.STD Hermetic connectors
- Power Consumption @24V – 0.86A
- Operating temp -40°C to +80°C
- **Dimensions** (LxWxH, mm) 483x120x237
- **Weight (kg)** 16 (1280)/15 (640)
(include bracket + sun shield cover)

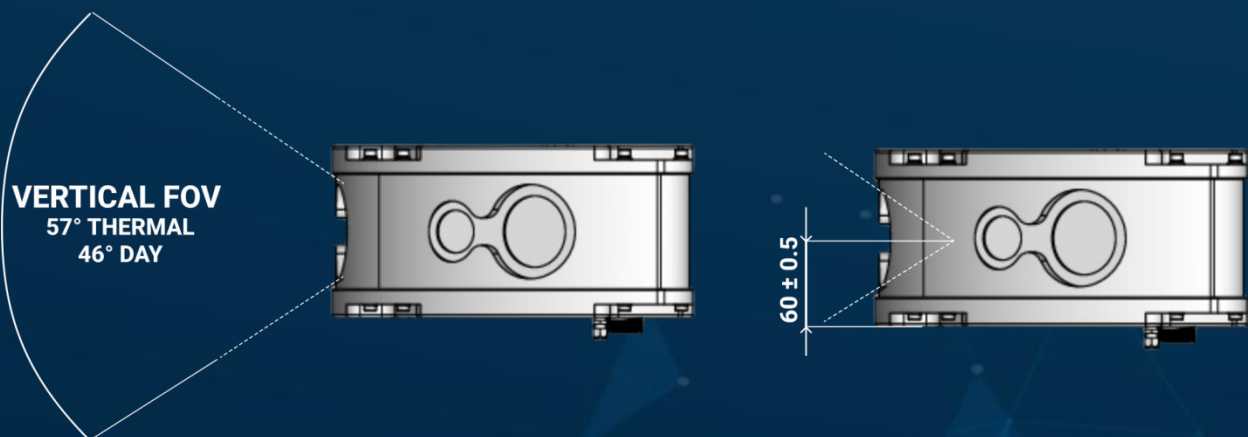
SA180-640-5,8mm LWIR DRI (m)



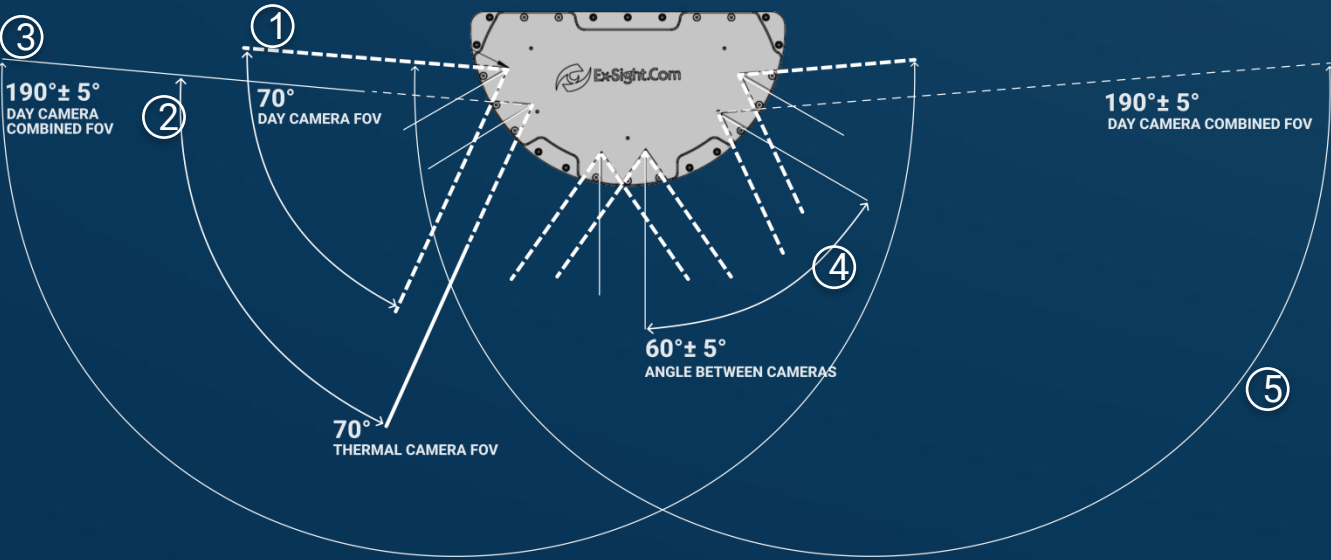
SA180-1280-13mm LWIR DRI (m)



VERTICAL FOV and CAMERA LOCATION



6x SENSOR LOCATION

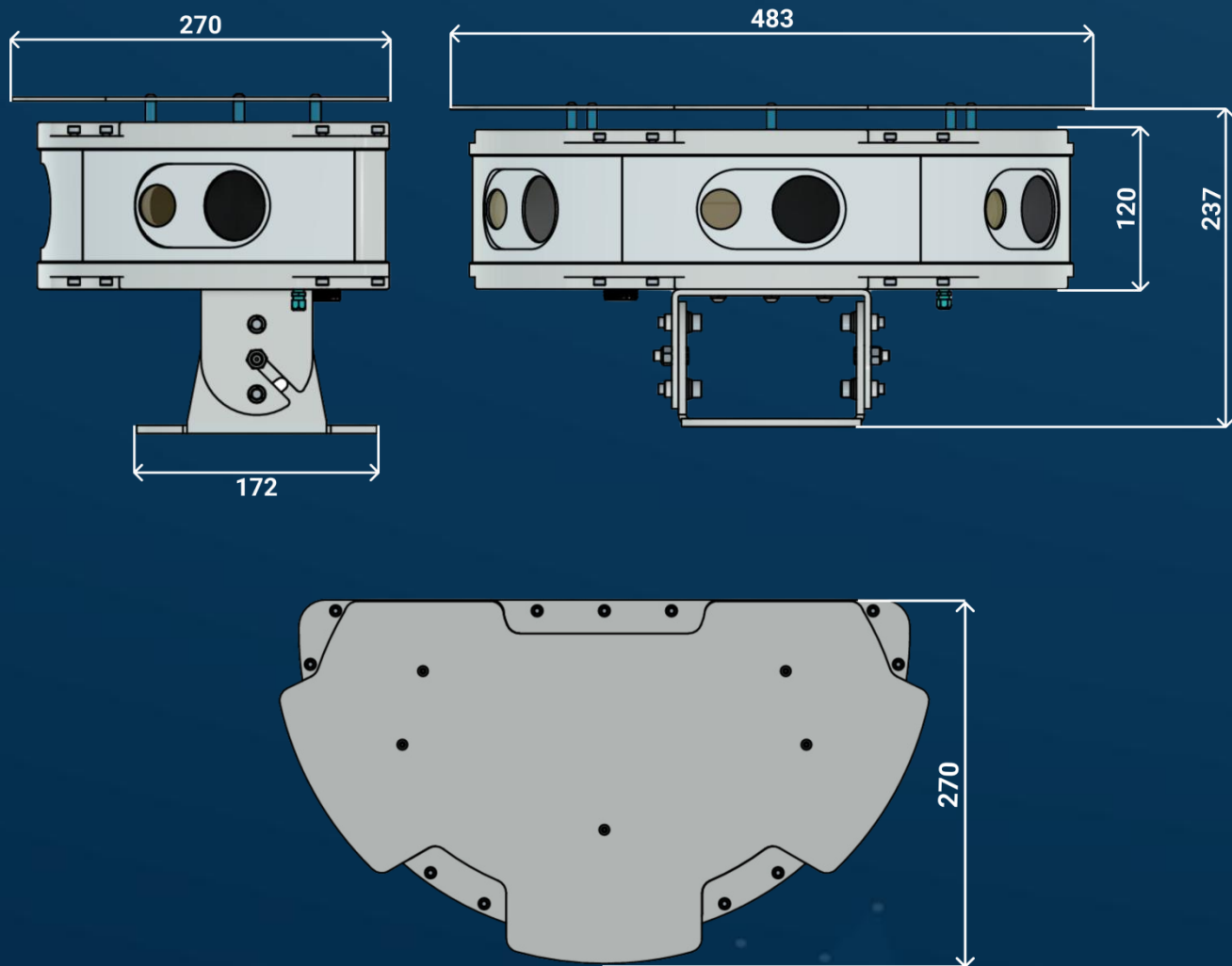


1	70°	DAY CAMERA FOV
2	70°	THERMAL CAMERA FOV
3	190° ± 5°	THERMAL CAMERA COMBINED FOV
4	60° ± 5°	ANGLE BETWEEN CAMERAS
5	190° ± 5°	DAY CAMERA COMBINED FOV

SA180

DIMENSIONS (LxWxH, mm) 483x120x237 *(include bracket + sun cover)*

WEIGHT 15 kg/640; 16kg/1280

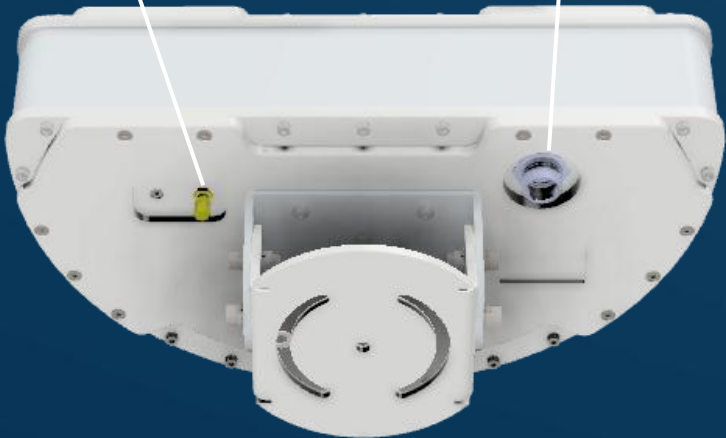


CONNECTION INTERFACE

② NITROGEN VALVE

① D38999/23YC35PN

Mil. Std
Stainless Steel
connector



PANEL PIN LAYOUT

D38999/23YD35PN Stainless Steel Hermetic Connector

PIN	DESCRIPTION	
1	Main ETH 1 (White Orange)	Giga Ethernet Port to Switch
2	Main ETH 2 (Orange)	
3	Main ETH 3 (White Green)	
4	Main ETH 4 (Blue)	
5	Main ETH 5 (White Blue)	
6	Main ETH 6 (Green)	
7	Main ETH 7 (White Brown)	
8	Main ETH 8 (Brown)	
9	NC	Not Connected
10	NC	
11	+POWER INPUT VDC	

PIN	DESCRIPTION	
12	GND	Giga Ethernet to Chained Sensor
13	+POWER INPUT VDC Backup	
14	GND Backup	
15	CHAIN ETH 1 (White Orange)	
16	CHAIN ETH 2 (Orange)	
17	CHAIN ETH 3 (White Green)	
18	CHAIN ETH 4 (Blue)	
19	CHAIN ETH 5 (White Blue)	
20	CHAIN ETH 6 (Green)	Not Connected
21	CHAIN ETH 7 (White Brown)	
22	CHAIN ETH 8 (Brown)	
23-37	NC	

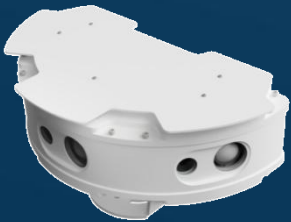
CABLE PART NUMBERING



SC Cable



CC Cable



SA180 PART NUMBERING

SA180-[RES]-[FOV]			
[RES]	LWIR RESOLUTION	640 (LWIR 640x512) 5.8 mm	1280 (LWIR 1280x1024) 13 mm
[FOV]	FIELD OF VIEW	70 –70° LWIR (69.4°x57.3°) 90° DAY (84.6°x45.9°)	S – 70° LWIR (69.4°x57.3°) 70° DAY (70.7°x43.5°) SYNC

CABLE PART NUMBERING

SA180-CABLE-[CT]-[LEN1]-[LEN2]			
[CT]	CABLE TYPE	SC (SINGEL CABLE)	CC (CHAINED CABLE)
[LEN1]	CABLE LENGTH	In Meters	
[LEN2]	CHAINED CABLE LENGTH	In Meters (CC cable only)	

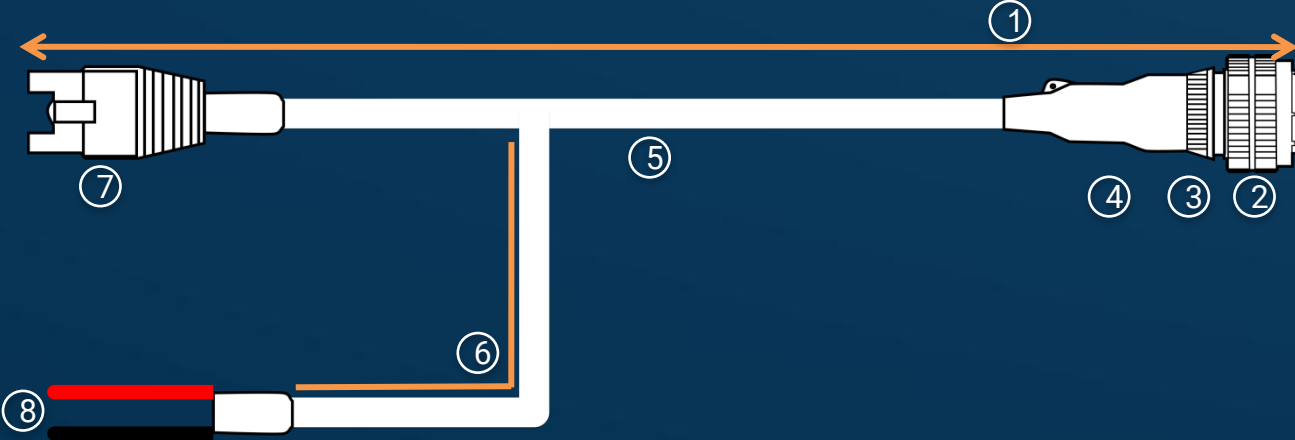
SA180-CABLE-SC-[LEN1]

SA180-CABLE is RQT1601875 Cable (6*20AWG + SPEC 55) with specified length.

The cable includes connector D38999/26KD35SN Mil. Std Stainless Steel that connects to the connector D38999/23YD35PN on the SA180 system.

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	D38999/26KD35SN	Mil. Std Stainless Steel connector (200°C, firewall capability, 500 hour salt spray resistance)
3	27140S141010410	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

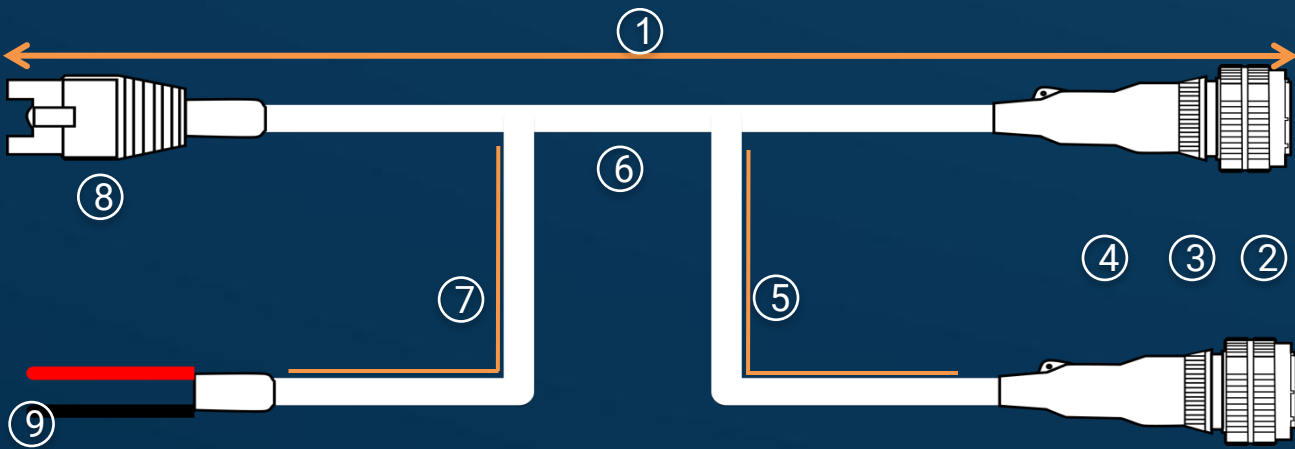
SA180-CABLE-CC-[LEN1]-[LEN2]

SA360-CABLE is RQT1601875 Cable (6*20AWG + SPEC 55) with specified length and Additional Chained sensor connector.

The cable includes two D38999/26KD35SN Mil. Std Stainless Steel connectors that connects to the D38999/23YD35PN on two SA180 systems.

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



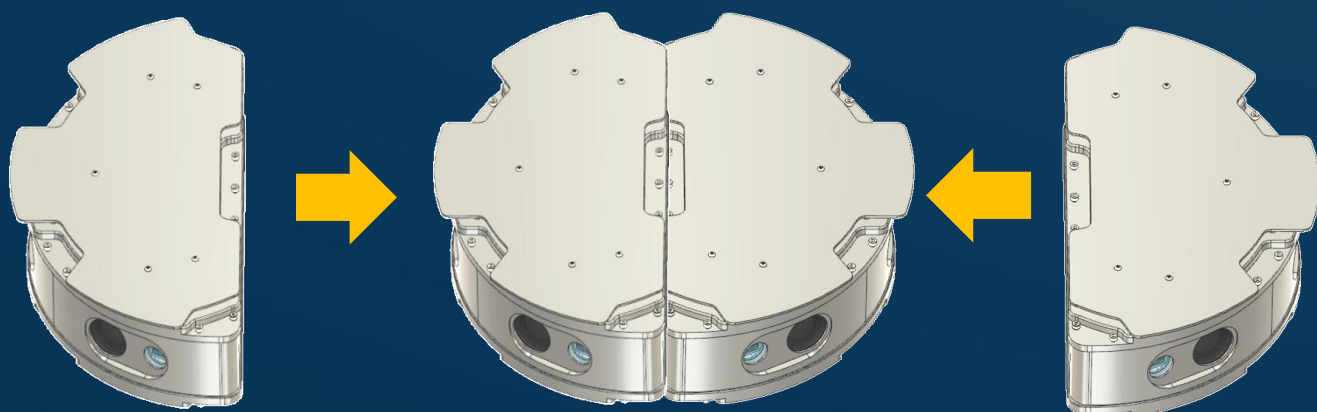
CABLE PART NUMBERING INDEX

#	P/N	DESCRIPTION
1	[LEN1]	Total Cable length (imeters)
2	D38999/26KD35SN	Mil. Std Stainless Steel connector (200°C, firewall capability, 500 hour salt spray resistance)
3	27140S141010410	Stainless Steel Backshell
4	202K132-25-0/202K132-25-0	Boot
5	[LEN2]	Chained Cable Length (in meter) from split
6	Cable RQT1601875	6*20AWG + SPEC55 (RAYCHEM DR-25)
7	Cable RQT1601875	6*20AWG + SPEC55 (1m) (RAYCHEM DR-25)
8	RJ45 Ethernet	Main Ethernet connector
9	Power Wires	20AWG For 9V-36V input

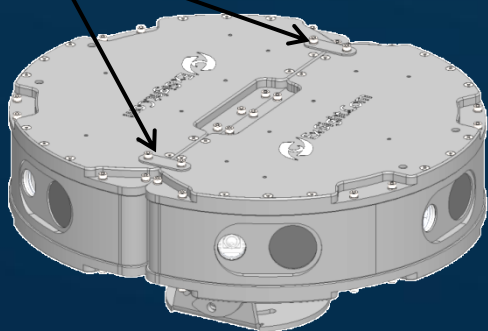
SA180-CABLE-SC

SA360 CONFIGURATION

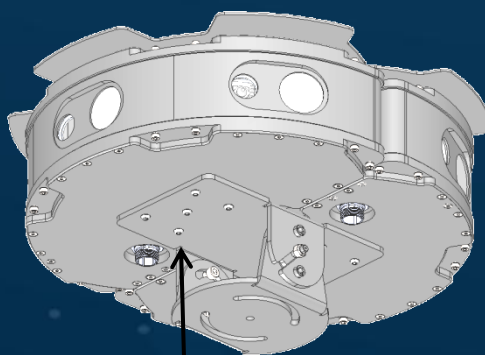
Two SA180 units can be assembled together in order to create SA360 system.



M5 support



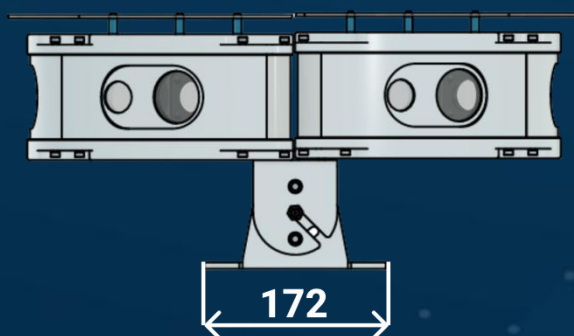
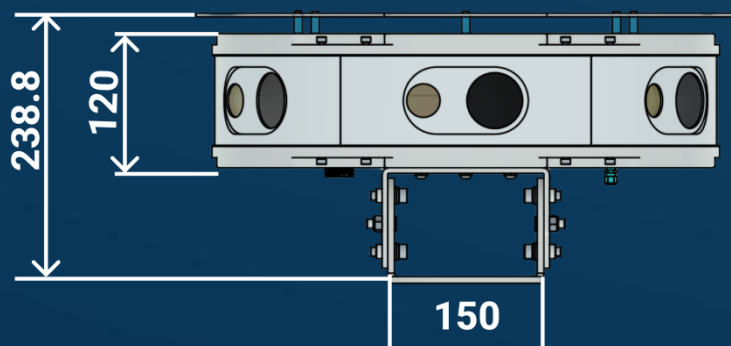
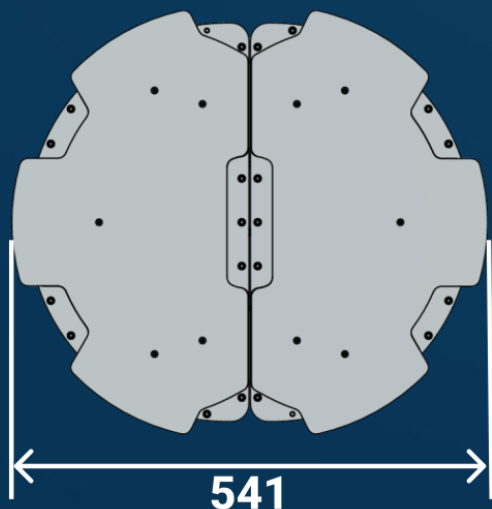
M8



SA180-CABLE-SC

SA360 CONFIGURATION

DIMENSIONS (LxWxH, mm) 541x172x238.8



SA180-ACCESSORIES

A single-legged support pole bears the camera's weight, providing height and stability. The pole has a wide base and shock absorbers to minimize vibrations and movements, ensuring stability.

