

SAURA № K 3074

SAURA THE BEST MAGNETIC COMPASS



SR-165

Class A Magnetic Compass to meet with ISO 449

Saura SR-165 is a Reflector Magnetic Compass designed for sea navigation, complying with the relevant IMO and other major Authority requirements.



Periscope/Viewing mirror

COMPASS BOWL

- Precision directional system design; card dia. 165mm
- Pivot bearings: platinum-iridium and sapphire
- Long lasting inner paint finish, without blister, cracks or discolouring over a long period of time
- Unique bowl design to absorb liquid expansion for leakage and air bubble free operation



BINNACLE STAND

- Full deviation correcting facility including; "B", "C" & Heeling error compensation, Quadrantal correctors and Flinders bars
- Illumination of compass card with dimmer control
- Dual power supply; 24VDC & 100, 110 or 220VAC
- Light in weight for ease of shipyard installation

PERISCOPE

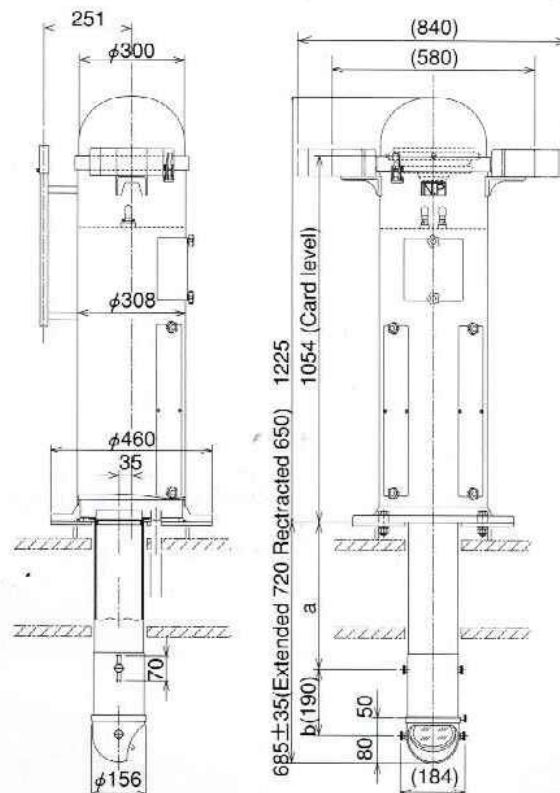
- Telescopic length of 685mm as standard with vertical adjustable length ± 35 mm with traveling tube. Its length is determined by $a+b$ (190mm) + 80mm, and longer telescopes are available on request.

INTERNATIONAL TYPE APPROVAL CERTIFICATION

- Type approved to MED and other maritime Authorities; JG, CCS

Standard Specifications	
Type of compass	Reflector compass
Compass bowl	card dia 165mm
Binnacle stand	with top cover
Periscope (a+b)	685mm \pm 35 as standard longer length available
Dimmer control	Dual current; 24VDC and 100/110 or 220VAC
Standard Accessories	
Correcting magnets for B, C and H	10 x strong 6 x weak
Quadrantal correctors	10 x permalloy plates
Flinders bars	5 x Flinders's bars
Shadow pin	Long & short with pin stand
Cover sheet	with tie down strings
Installation materials	gasket, bolts and nuts
Optional accessories	
Azimuth reading device *	AD-02
Spare compass bowl	in wooden box
TMC sensor	SCP-NT

* an indispensable accessory as defined by relevant International standards



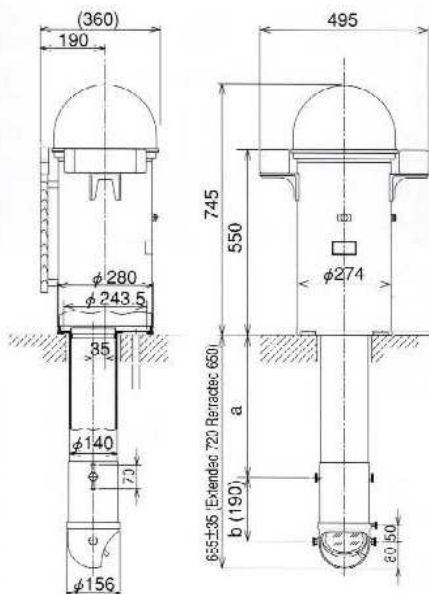
Reflector Compass

FOR COMMERCIAL VESSELS & WORK/FISHING BOATS

MR-165C & MR-150



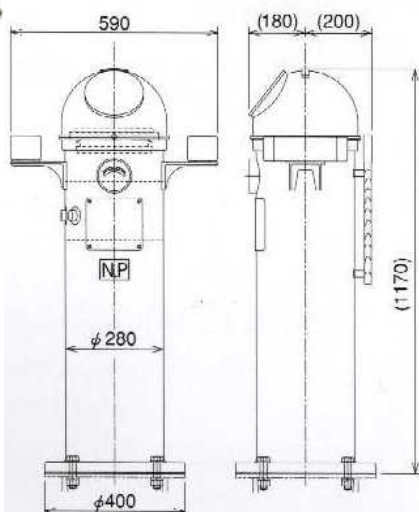
Periscope/Viewing mirror



	MR-165C	MR-150
Type of compass	Reflector compass	←
Compass bowl	card dia 165mm	card dia 150mm
Binnacle stand	with top cover	
Periscope/optics	685mm±35 as standard longer periscope available	←
Dimmer control	24VDC & 100/110/220VAC	24VDC only
Type approvals	CCS	JG
Standard accessories		
Deviation correctors		
Correcting magnets	10 x Ø6 by 17mm 6 x Ø6 by 45mm	←
Quadrantal correctors	10 x pure iron plates	←
Flinder's bars	5 x Flinders's bars	←
Shadow pins	Long & short with pin stand	←
Cover sheet	canvas w/Tie down strings	←
Installation materials	gasket, bolts and nuts	←

Binnacle Stand Compass

S-165III & S-180III



	S-165III	S-180III
Type of compass	binnacle stand type	←
Compass bowl	card dia 165mm	card dia 180mm
Dimmer control	24VDC and 100 or 200VAC	←
Type approvals	JG and CCS	JG
Standard accessories		
Deviation correctors		
Correcting magnets	8 x Ø6 by 45mm 7 x Ø6 by 34mm	←
Quadrantal correctors	10 x pure iron plates	←
Flinder's bars	5 x Flinders's bars	←
Shadow pins	Long & short with pin stand	←
Shade plate	1 pce	←
Installation materials	gasket, bolts and nuts	←

Steering Compass

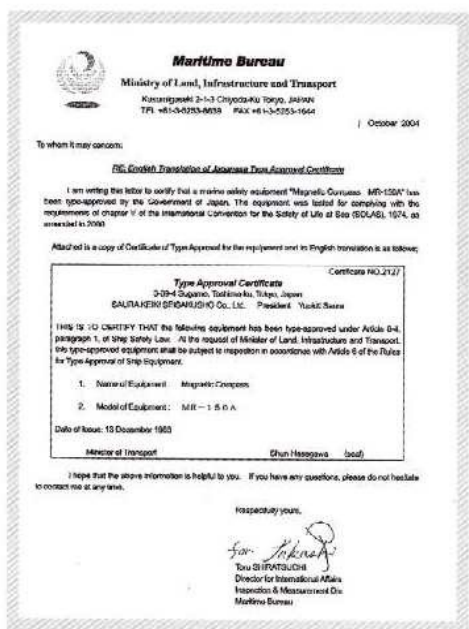
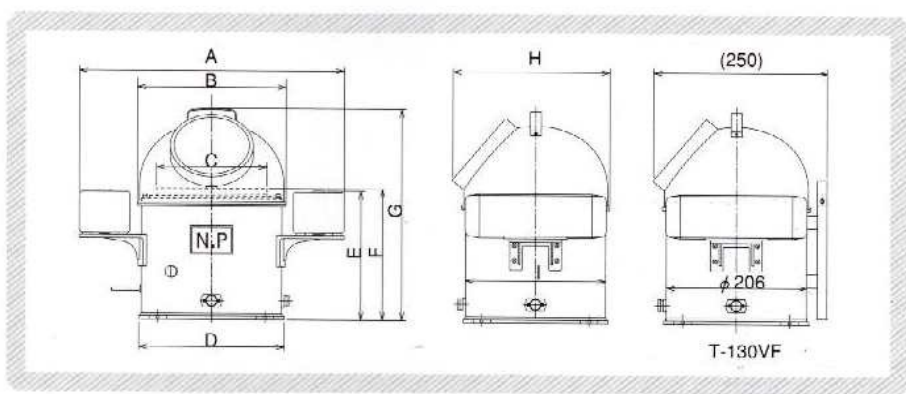
FOR COASTAL NAVIGATION



T-150IIF & T-180IIF

- Illumination lamp: 24VDC
- Type approval: JG (Japanese DOT)
- Card illuminated from beneath the compass bowl
- Full deviation correctors: B+C, D, Heeling & Flinders Bar

Model	Card dia	Card lighting	A	B	C	D	E	F	G	H	I	Weight	Approvals
T-150IIF	150mm	on bottom	460	274	202	253	215	235	390	288	244	11 kgs	JG & ZY
T-165IIF	165mm	on bottom	490	310	228	278	235	255	420	324	274	14 kgs	JG
T-180IIF	180mm	on bottom	490	310	228	278	235	255	420	324	274	14 kgs	JG



JG Certificate issued by Maritime Bureau of Japan (DOT)



T-130VD T-130VF T-130VB

Model	Card dia	Card lighting	A	B	C	D	E	F	G	H	I	Weight	Approvals
T-130VB	130mm	on top	430	220	161	212	220	222	352	230	206	6.3kgs	n/a
T-130VD	130mm	on bottom	430	220	161	212	220	222	352	230	206	6.3kgs	JG
T-130VF	130mm	on bottom	430	220	161	212	220	222	352	230	206	6.3kgs	JG

Optional Accessories

Spare Compass Bowl



in wooden box

Azimuth Reading Devices



Azimuth Device
AD-02 for SR-165



Azimuth Circle
AC-02 MR-165C, MR-150, T-180
AC-03 T-150
AC-04 T-130

Transmitting Heading Device (THD/TMC)

Pick-off sensor



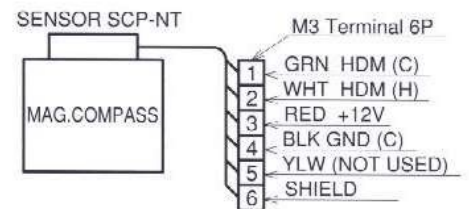
SCP-NT

Provides magnetic compass heading reference by serial data in NMEA format for direct connection to navigational instruments.

Mounts on top surface of a magnetic compass, therefore, free from interference from the correcting magnets beneath the compass bowl.

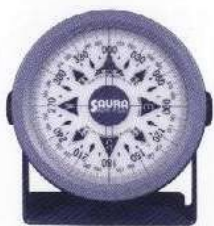
Inner trim control allows output off-set adjustment by +/- 10 deg.

Power supply : 12 - 15VDC
Current drain : 120mA typical
Output sentence : HDM or HDT (selectable)
Output cycle : 200mS average (fixed)



NO.3,4 & 2,(1) WIRES TO BE CONNECTED TO NAV.EQUIPMENT

Repeater Compass



NRC-150

Large easy to read 150mm dia card
Smooth and quiet card movement, similar to that of a magnetic compass.

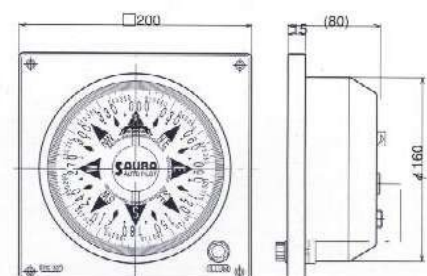
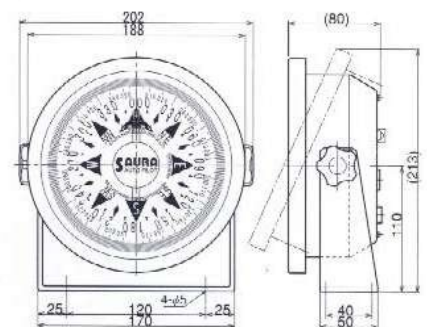
Light in weight and low profile design.

Back-lit illumination.

Dimmer control provided for night use.

Unlimited number of slave repeater connections
Simple connection direct to SCP-NT Pick-off sensor, no interface required.

Power supply : 13.8 - 30VDC
Current drain : 200mA nominal, 400mA (max)
Heading input : Sine/Cosine, Saura format signal, NMEA-HDT or HDM
Heading output : NMEA-HDT or HDM, Sine/Cosine



NRC-150P

Boat Compass

Lifeboat Compass



B-75LA

Type approval:
JG (Japanese DOT)

Card dia	75mm
Double gimballed bracket mount	
Lighting	from behind the compass card, 24V bulb

Grid Compass



DGS-75L

Easy course determination by T-shaped grid rotatable around 0-360 deg graduated verge ring.

Lighting	compass bowl bottom
Box size	163mm x 163mm x 73mm
Weight	1.3 kg

Wooden Box Compass



Model	Card dia	Box size	Weight
B-75S	75mm	163 x 163 x 73mm	1.3 kg
B-100S	100mm	203 x 203 x 110mm	2.2 kg
B-130S	130mm	230 x 230 x 120mm	3.0 kg
B-150	150mm	277 x 277 x 146mm	5.9 kg
B-180	180mm	315 x 315 x 158mm	8.4 kg

Brass Binnacle Compass



Model	Card dia	Binnacle size	Weight
P-75L	75mm	173mm dia x H190mm	1.3 kg
P-100S	100mm	206mm dia x H245mm	2.2 kg
P-130S	130mm	248mm dia x H260mm	3.0 kg
P-150	150mm	294mm dia x H305mm	5.9 kg
P-180	180mm	173mm dia x H190mm	8.4 kg

Hand Bearing Compass



HB-65GII

Precision marine handbearing compass

Card dia : 65mm
 Card graduation : 0-360 in 2 deg, with bold and short lines for every 5 deg sections
 Prism : 3-power prism from 2 feet distance, visible field 20 deg.
 Easy to determine bearings by aligning the target sight of prism and the objects.

Compass bowl dia : 97mm
 Height : 205mm
 Weight : 700grs(compass), 900grs(carrying case)

Specifications to change without prior notice

Distributed by:

Россия, 190020, С.-Петербург
 ул. Бумажная, д. 18А
 Тел.: +7(812)309-46-46
 Факс: +7(812)309-46-36
 e-mail: reception@marinetec.com
 www.marinetec.com



Manufactured by:

Saura Keiki Seisakusho Co., Ltd.

Steering reliability since 1916

www.saura.jp

339-1 Ohkubo-Ryoke, Sakura-ku, Saltama 338-0826, Japan

Overseas enquiries, please contact
 Fax: +81 3 3256 8540 Tel: +81 3 3256 8549