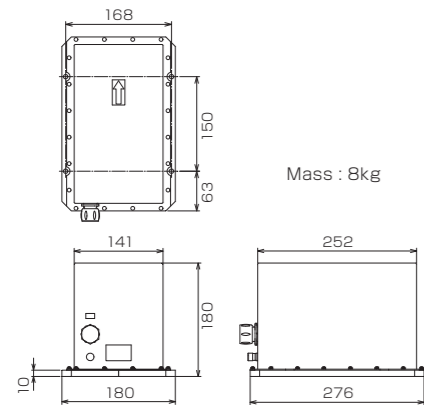


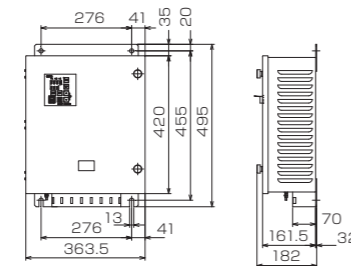
## Equipment dimensions

### Sensor Unit



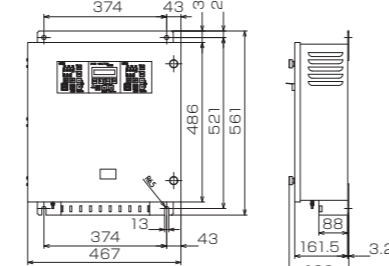
### Control Unit

Type S  
(Single gyrocompass system)



Mass : 14.5kg

Type D  
(Dual gyrocompass system)



Mass : 23kg

Unit:mm

## Specifications

General specifications		
Main power supply		AC100/110/115/220V 1Φ 50/60Hz
Emergency power supply		DC24V
Power consumption	Starting	15VA
	Operating	15VA
	Repeaters	150VA (*1)
	Step signal (for repeaters)	DC24V 1/6" 3Φ 4 ports (*2)
Output signal	Serial signal	IEC61162-1 or IEC6112-2 10 ports
	Rate of turn (analog signal)	±5V/30°/min ±10V/120° or 300°/min 3 ports
	Alarm transmission (serial signal)	1 port
	Dry contact (operation, alarm)	
	Speed	Dry contact 200 or 400p/nm Serial signal IEC61162-1
Input signal	Position (GPS)	Serial signal IEC61162-1
	External heading input	Serial signal IEC61162-1 or -2
	Alarm transmission (serial signal)	1 port
	Dry contact (operation, alarm)	
Performance specifications		
Settling time		Less than 30 mins
Settling accuracy		Less than 0.25° secλ (RMS) (*3)
Accuracy on scorsby table		Less than 0.3° secλ (RMS) (*3)
Accuracy under environmental variation		Less than 0.3° secλ (RMS) (*3) (ISO8728/ISO16328)
Environmental conditions		
Permissible angle		±90° (pitch, roll)

(\*1) Voltage consumption when using all repeater output ports. The maximum number of repeater output ports (step and/or serial outputs in total) for TF-900 is 9 ports.

(\*2) This is the standard number of ports for repeaters. The number of ports might be changed according to the product specification.

(\*3) RMS error (Mean Square Error) is different from the Maximum error. Maximum error would be approximately three times larger than RMS error.

Design and specifications are subject to change without prior notice, and without any obligation on the part of the manufacturer.

**CAUTION** Before operating this equipment, you should first thoroughly read the operator's manual.

**TOKYO KEIKI**

TOKYO KEIKI INC.

Marine Systems Company

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August 2025 Cat.No.1542-7-E-0-H

**TOKYO KEIKI**

FIBER OPTIC GYROCOMPASS

**TF-900**



TOKYO KEIKI INC.

# Fiber optic technology, changing the way we know gyrocompass.

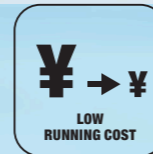
Complies with the latest international maritime requirements and major classification societies.



Even as a high performance system utilizing the latest inertial navigation technology, it is NOT subject to the List Control of Japan for export.



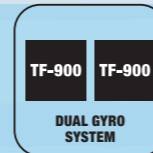
The sensor unit contains NO movable parts meaning NO periodic overhaul. When compared to mechanical gyrocompass, Fiber Optic Gyrocompass contributes to running cost savings.



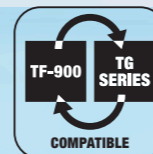
Settling time within 30 minutes after the application of power. Much faster than mechanical gyrocompass allowing for quicker departure.



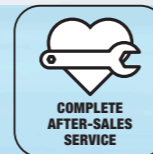
Dual gyrocompass configuration (including connection to Tokyo Keiki mechanical gyrocompass (TG series) is available.



The operating procedures and optional items (accessories) are the same as those of our conventional mechanical gyrocompass (TG-8000 series). Therefore the operator can feel at ease when using TF-900 exactly same as the conventional TG-8000 series mechanical gyrocompass.

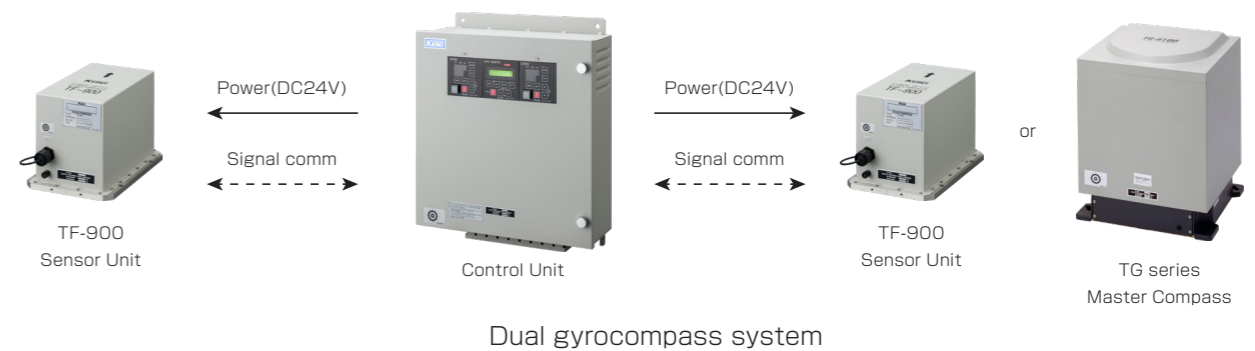


We provide a complete and worry free after service support backed by our technical expertise of fiber optic technologies and experience as long-established gyrocompass manufacturer.



## ■ Dual gyrocompass system configuration is available

In addition to single gyrocompass, TF-900 dual system configuration is also available. Moreover, TF-900 can be incorporated with mechanical gyrocompass (TG series) for dual gyrocompass configuration.



## ■ Easy to retrofit from mechanical gyrocompass (TG-8000 series)

Retrofitting is easily done by ONLY replacing the master compass (TG-8000 series) with a new sensor unit (TF-900) and making a slight modification on the existing control unit. Possible to retrofit in one day during the vessel's port call.

(\*Details of the retrofit procedure might be different according to models and specifications of existing gyrocompass.)



## ■ Available to add as additional (No.2) sensor

TF-900 can be added to an existing Tokyo Keiki single gyrocompass system as an additional sensor via the AGI unit (Additional Gyrocompass Interface unit).

In the event of gyrocompass trouble, the sensor can be quickly changed/switched to the additional sensor supporting safe and secure navigation. Existing accessories (repeaters etc.) can be used as they are without any modification or changing.

