



SAM 4682

Dual Axis Doppler Speed Log



**SAM
Electronics**

an  communications company

SAM 4682

General

System Summary

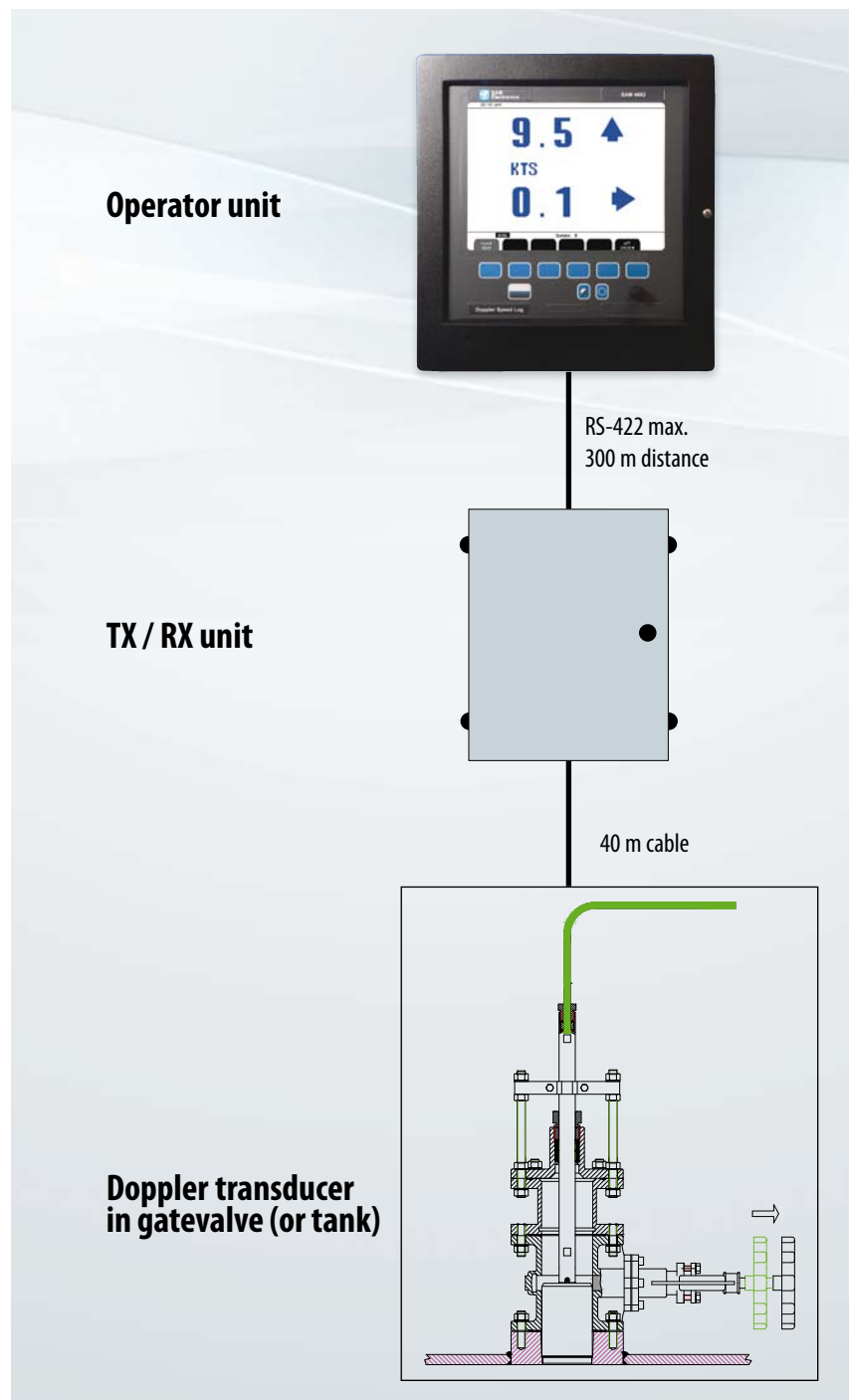
SAM 4682 is a navigation, 2 axis doppler log with a large, high resolution graphic LCD. An auxiliary, shallow water echosounder function is included. Display graphics are continuously shown on the LCD along with complete navigation details. All IMO requirements are met or exceeded. Comprehensive interfaces are available, including NMEA0183 input and output.

Transducer and Transceiver

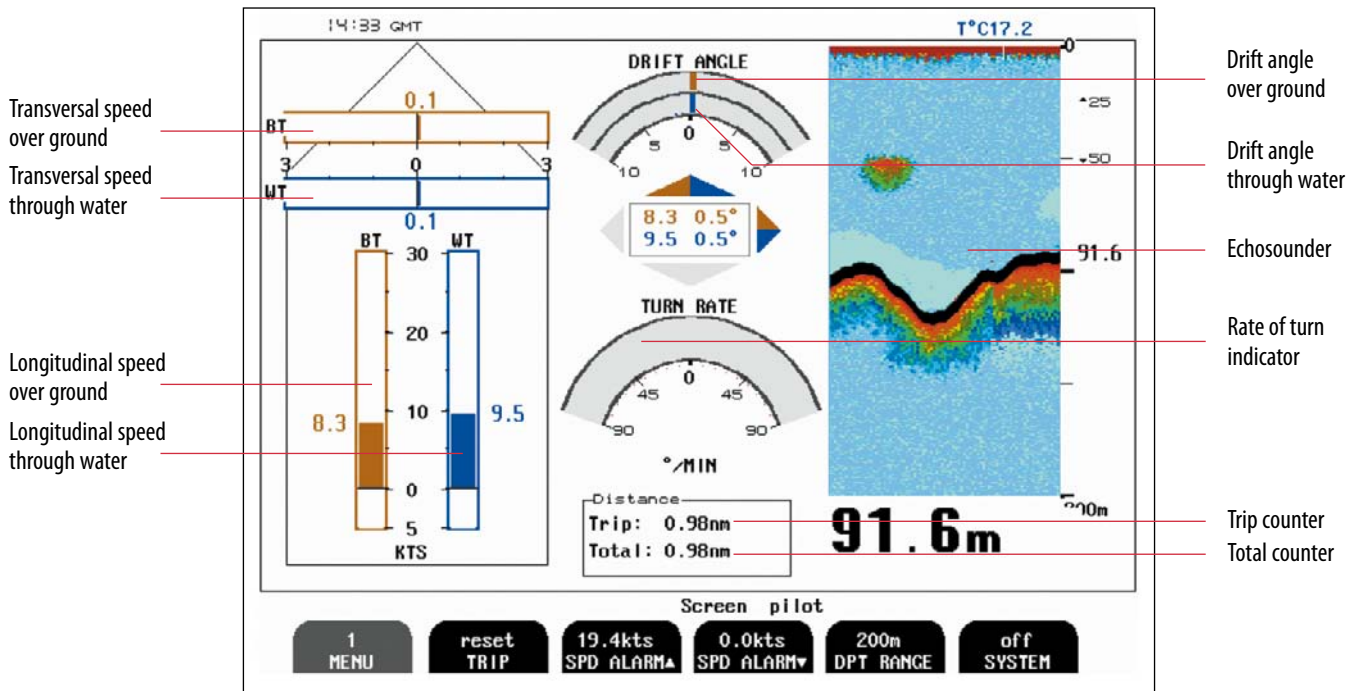
SAM 4682 transducer consists of a total of 3 hydro-acoustic elements of 270 kHz. The transducer is connected to a transceiver electronics cabinet located within 40 m of the transducer. Connection from the transceiver to the operator unit is via a serial RS-422 data link and distance up to 300 m. Transceiver power supply options are 230 V AC or 24 V DC. The power consumption is approximately 80 Watts at 115 / 230 V AC or 60 Watts at 24 V DC.

Operator Unit

The operator unit contains a graphic dot-matrix color TFT LCD display and a keyboard with fixed keys, softkeys and a rotating encoder. The function of each softkey button depends on the active screen, and the buttons are labelled on the lower rim of the LCD. The display is backlit, and backlight intensity can be adjusted by the user. Various user-selectable information layouts, adapted to typical operational situations, can be displayed continuously on the LCD screen. The operator unit is normally flush mounted. Brackets for bulkhead mounting are available optionally. Operator unit power supply options are 230 V AC or 24 V DC. The power consumption is approximately 70 Watts at 115 / 230 V AC or 50 Watts at 24 V DC.



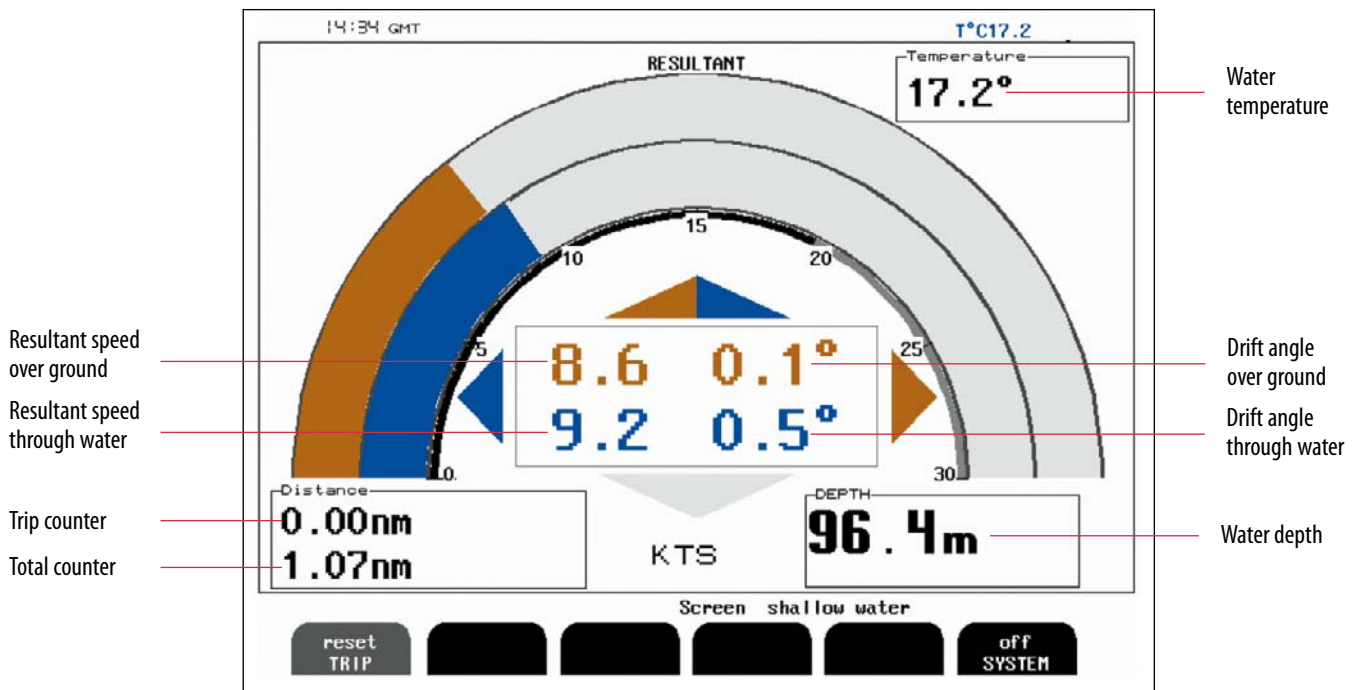
Standard Functions



Transversal speed over ground
Transversal speed through water

Longitudinal speed over ground
Longitudinal speed through water

Drift angle over ground
Drift angle through water
Echosounder
Rate of turn indicator
Trip counter
Total counter



Resultant speed over ground
Resultant speed through water

Trip counter
Total counter

Water temperature
Drift angle over ground
Drift angle through water
Water depth

SAM 4682

Technical Data

Power supply	AC: 220 V / 110 V 50/60 Hz DC: 20 - 40 V
Power consumption	Max 100 W
Display	150 x 200 mm (10.4 inch) Colour LCD screen with adjustable backlight
Main cabinet colour	RAL 9005
Memory	For retaining operational settings
Speed range	± 40 kts in both axis
Bottom lock	1 - 150 m
Water track	Less than 3 m below transducer
Frequency	270 kHz / beam width 3 x 5,5°
Output power	50 W / element adjustable
Accuracy	1% of speed or 0,1 kn whichever is greater
Outputs	- 3 x Analogue 0 - 10 V and 4 - 20 mA - 2 x NMEA 0183 / RS 232 / RS 422 - 3 x 10 / 100 / 200 / 400 / 1000 pulses per Nm - Alarm relay output - VGA, for Remote Display
Inputs	- From transducer (speed, depth and temperature) - NMEA 0183 / RS 232 / RS 422 - Built-in test simulator
Languages	English, French, German, Spanish, Russian, Norwegian
Classification	IMO / DNV
Echosounder*	
Range	Max. 100 m
Frequency	270 kHz
Output power	100 W adjustable
Measuring accuracy	Better than 2,5%
Depth alarms	Depth and shallow limits

* echosounder function is not IMO certified and is supplied as an additional feature