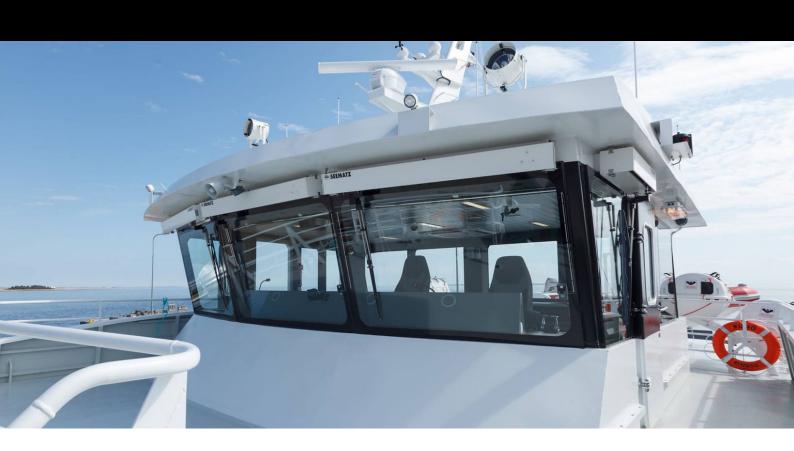
SEEMATZ

STRAIGHT LINE WINDOW WIPERS



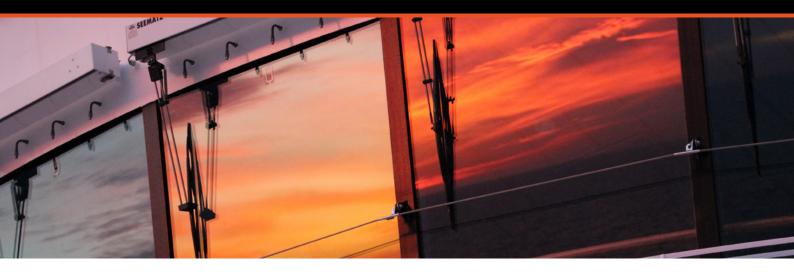
SEEMATZ WINDOW WIPERS

The many years of experience with Seematz searchlights were taken into account with the development of the straight line window wipers. Nowadays, with more than 45 years of experience gained in the maritime sector, Seematz offers searchlights and straight line window wipers of unparalleled quality and reliability. Theunissen Technical Trading is representing the Seematz searchlights and window wipers for the Benelux area since 1984.

Seematz straight line window wipers offer a perfect performance under all weather conditions. The perfect choice for owners of high performance vessels with high reliability demands. Type approved by Lloyds Register of Shipping and highly appreciated by our satisfied customers all around the world. If you choose Seematz window wipers you can be sure to get a one off system, tailor made to your vessel.







CHARACTERISTICS

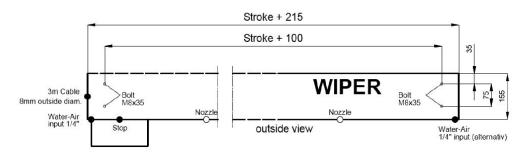
- Seawater resistant aluminium housing standard white powder coated
- Stainless Steel transport system
- Two 24VDC motors for maximum torque
- Park position switch inductive
- Railway heater for safe operation in cold areas
- Arms up to 1000mm length
- Wiper blades up to 1600mm length
- Housings up to 3600mm length
- Designed for input powers of 24VDC or 110/230VAC. Other input powers on request
- Different Multi-Speed controllers incl. BUS-Steering or Bridge-COM control
- Water/air spray system available (optional)
- Wiper housing available in all RAL colors
- Type approval by Lloyds Register
- Tested up to -60° Celsius

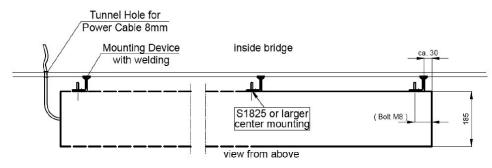
WINDOW WIPER DESIGN

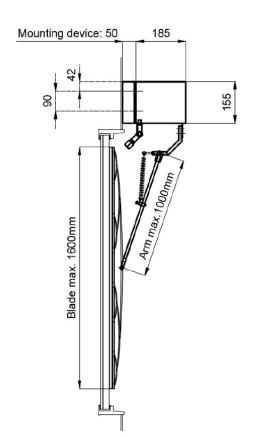
The Seematz wiper housing consists of seawater resistant aluminium Almg 3. All other metal parts are made of stainless steel or brass. All colored parts are powder coated. The transporter inside the housing is moved by two 24VDC motors. These motors are installed in a separate chamber of the wiper housing, so completley outside the wheelhouse.

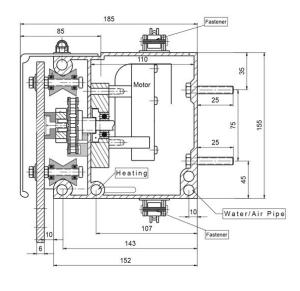
As standard, the housing is fitted with a park switch, a 100W heating system and an overload protection. All wiper systems include the wiper arm, blade including rubber, 3m connection cable, D-Sub panel cable, power supply and control panel.











DIFFERENT TYPES

Seematz window wipers are available in three control types. The 'Atlantic' type is the basic version, commonly used in applications where a few control options are sufficient. The 'Ocean' type is the most popular type out of the three. It comes standard with a spray system, thermostat controlled heating and five interval and continuous speed options. The 'Pacific' type is the most extensive type and is often used on large vessels where a lot of contol options are desirable.

Regardless of the wiper type, the wipers blades, arms and other parts of the wiper system are identical. The differences between the types are in the controlling possibilities as well as the number of wipers that can be connected to the system.

MODBUS

The control panels are made of well tested and heavy-duty buttons and connections. This allows for a simple connection and an easy and intuitive operation of the system.

All control panels for the wipers can be tailor made for your vessel/bridge layout. The 'Pacific' type also offers a connection to the bridge-COM system, this means that all connected wipers are controllable from the main control & monitoring panel on the bridge. This MODBUS connection is also tailor made for your vessel.

	ATLANTIC	OCEAN	PACIFIC
Individual wiper control	Standard	Standard	Standard
Group steering		Standard	Standard
'Single sweep'		Standard	Standard
Intermittend mode's	3x	5x	6x
Continuous speed's	2	2	2
Water/air spray system	Optional	Standard	Standard
Thermostat heating	Standard (not controllable)	Standard (controllable)	Standard (controllable)
Status LED	Standard	Standard	Standard
CVS and window heating	Optional	Optional	Optional
Max wipers per panel	10	12*	24

^{*}Additional wipers possible on request



ATLANTIC TYPE

At customer request, Seematz designed the 'Atlantic' type. It is a economical combination of the reliable Seematz wipers with a relatively simple steering. The Atlantic is therefore often used on smaller vessels where a reliable wiper system is required but fewer control options are sufficient.

The Atlantic version includes a three step interval (5, 10, 15 sec.), two continous speed levels and status control with LED's. Optional for this type is a water/air spray system (CSV) and thermostat control for the heating elements in the housing.

CONTROL PANELS

For the 'Atlantic' type there are four standard control panels. The type of control panel depends on the number of controlled wipers.

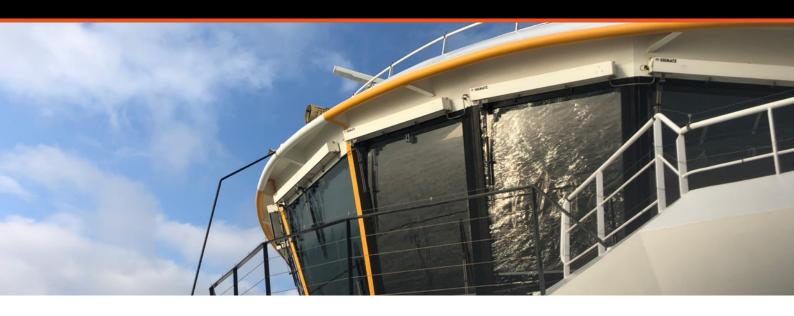
No. wipers	Dimensions panel
1 wiper	72 x 72 mm
2 wipers	144 x 72 mm
3-6 wipers	144 x 144 mm
7-9 wipers	216 x 144 mm
10 wipers	288 x 144 mm



* Example of a controle panel, type 'Atlantic'



SEEMATZ



OCEAN TYPE

The 'Ocean' type is the most used type of Seematz window wiper control, it comes standard with a water/air spray system and thermostat heating for the wiper housing. For controlling the wiper, grouping functions are available and a 'single sweep' function is also standard on the Ocean wipers.

Five intermittent speed levels are available, next to the two different continuous speeds. The built-in lightmeter automatically dims the LED's for optimal use and comfort in the dark.

CONTROL PANELS

For the 'Ocean' type there are four standard control panel. The type of control panel depends on the number of controlled wipers.

No. wipers	Dimensions panel
1-3 wipers	144 x 72 mm
4-8 wipers	144 x 144 mm
7-10 wipers	216 x 144 mm
8-12 wipers	288 x 144 mm



* Example of a controle panel, type Ocean



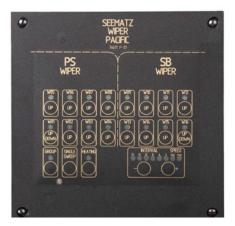
PACIFIC TYPE

The 'Pacific' type is the most advanced type of Seematz wipers. It comes standard with individual wiper control, group steering, water/air spray system, controlled thermostat heating and six intermittent speed levels as well as two continuous speed modes.

Pacific wipers can be controlled from a control panel or via a network connection called MODBUS. The MODBUS connector allows for connecting the Seematz control panel to you own monitor steering interface in the wheelhouse.

CONTROL PANELS

- Easy connection to the control panel with one "patch" cable
- Connection of additional control panel with one additional 'patch' cable
- Up to 24 wipers on one control panel
- Panel sizes: 144 x 72mm or 144 x 144mm
- Up to 10 special functions operable
- Self-dimming LED's
- Different panel colors available on request



* Example of a controle panel, type 'Pacific'



THEUNISSEN TECHNICAL TRADING BRANDS



LIGHTING ON BOARD

Technical | Navigation | EX | LED assortment |
Floodlights



PIPE- AND CABLE TRANSITS
Water- and gastight | EMC | ATEX



COMMUNICATION ON BOARDTelephone | Intercom | PA | GA | EX | Wireless



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FIRE DETECTION

Complete systems | Conventional | Adressable



REVERSE OSMOSIS WATERMAKERS 650 - 1.200.000L a day



SEARCHLIGHTS Halogen | Xenon | LED



SINGLE PIPE- AND CABLE TRANSITS

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LOUDSPEAKERS

Horn | Cabinet | Music | Ceiling | Projector |

Voice Alarm | Clean Room | EN54-24 | EX



EMERGENCY TELEGRAPHS two wire based



WINDOW WIPERS straightline wipers, custom sizes



SIGNAL COLUMNSConfigurable as desired



MARINE HEATERS Elektrical | IP44 | 250-2000W