

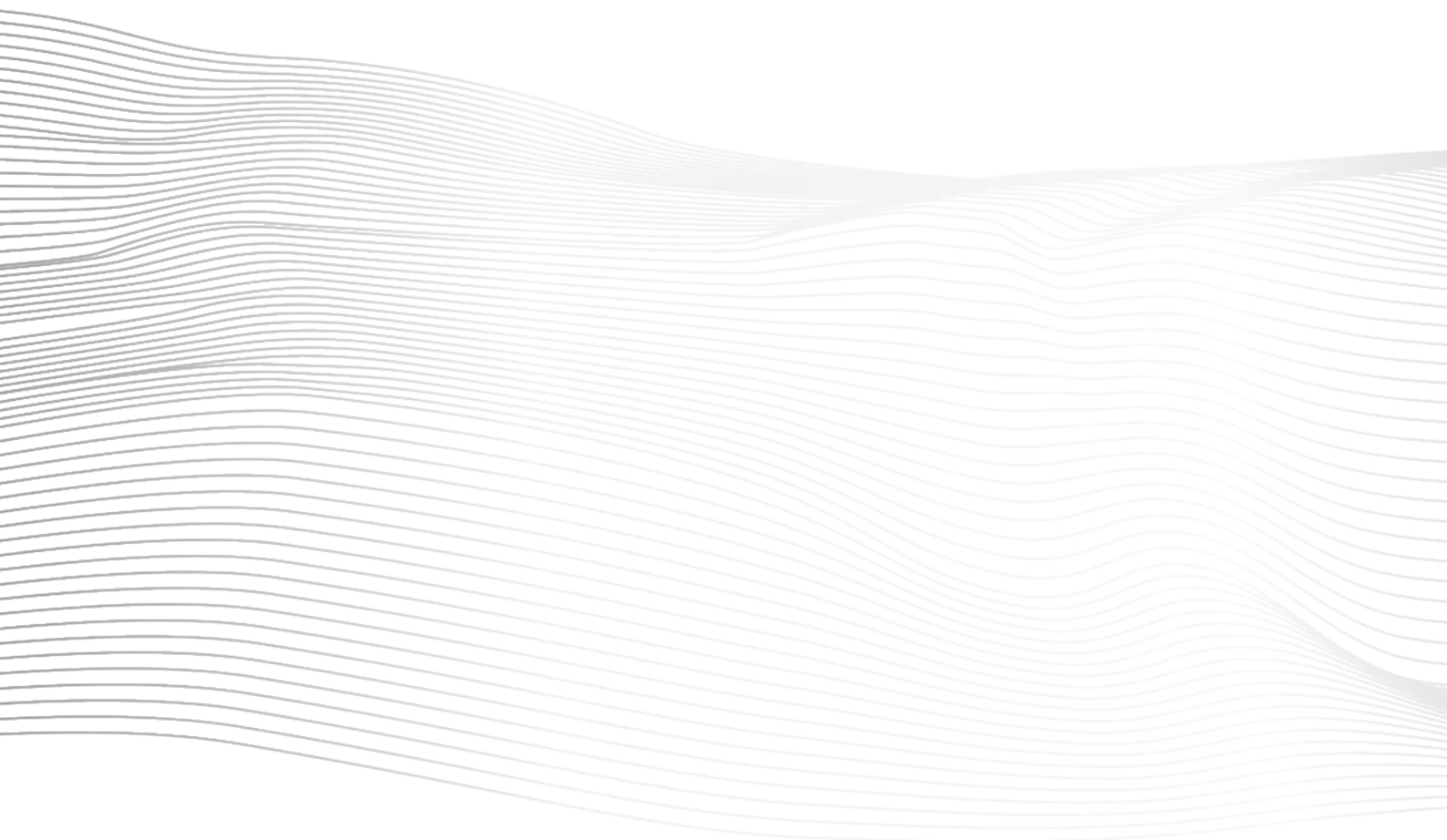
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# ENGINE ORDER TELEGRAPH

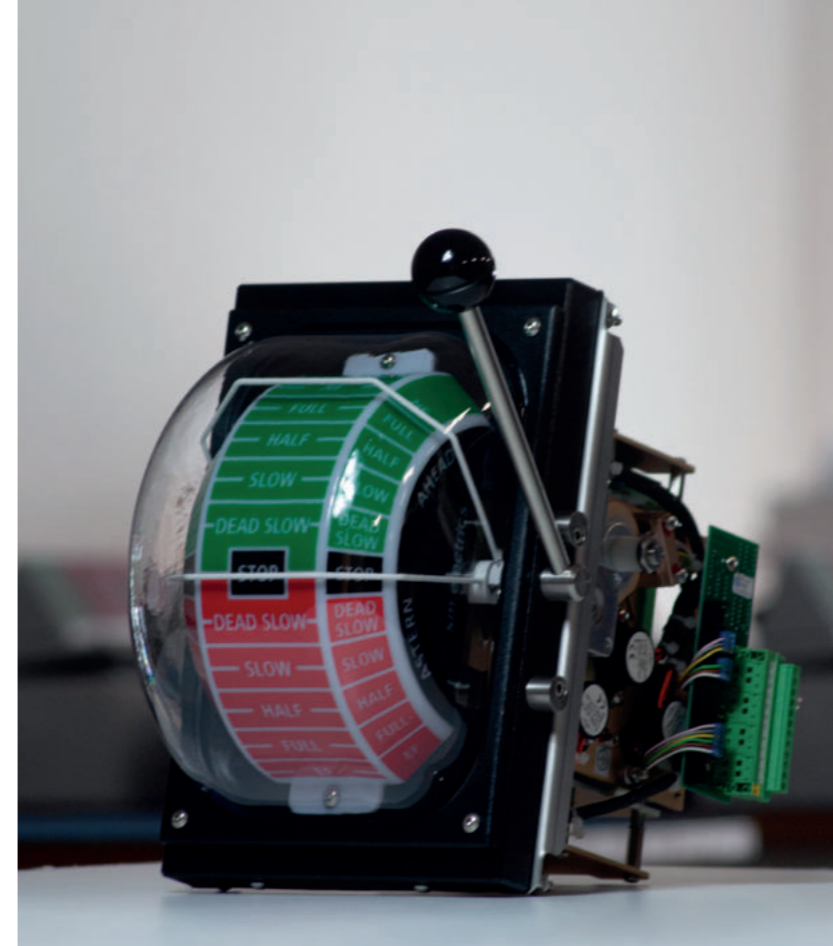
EOT



**sm electrics**



**safety on board.**



# ENGINE ORDER TELEGRAPH

EOT

sm electrics' Engine Order Telegraph (EOT) formerly designed and distributed by Stein Sohn respectively Interschalt represent the embodiment of safe and sustained  $\mu$ P controlled human machine interface as a basic part of the connected remote propulsion system.

Type approved by major classification societies the equipment is available for various control application. The highly integrated system is administrating a single interface to the potential propulsion system by high-precision shock resistant potentiometer, contact-free optical current transmitter or other defined physical interface unit. The well established  $\mu$ P controlled "Electrical Shaft" allows a secure Bridge FWD EOT's remote control by corresponding lever controller located typically on the Bridge Wings and/or Bridge AFT.

 made  
in  
Germany

## APPLICATION

The main purpose of sm electric's Engine Order Telegraph system is to generate the desired RPM or pitch value for the connected propulsion remote control system by a sustained and reliable lever – known as well as human machine interface (HMI).

In case the connected propulsion remote control system is disturbed the engine order telegraph system is in use to transfer manoeuvre commands to the engine control room or, if required, directly to the engine room's ME local station. The given manoeuvre command activates an audible alarm as long as the command has been accepted by corresponding operation at the connected participants.

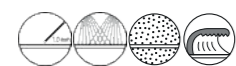
The modular system structure allows to extend the system by wing control units. All telegraphs located on the bridge e.g. bridge FWD, bridge AFT, wing SB, wing PS are connected to each other by a virtual mechanical shaft to make them work synchronously. That virtual shaft is called Electrical Shaft and operates as a remote control of the main bridge FWD telegraph which is providing the main interface to the connected propulsion remote control system.

The centralized A067 mt-Bus controller, mostly located inside the engine control room console, controls and monitors all network participants and provides further interface signals for ER call, VDR and connected IAMC systems.

**system diagnosis via LCD**

**type approved by all major classes**

**serial VDR interface**



IP44/IP56



system voltage:  
24 DCV nominal

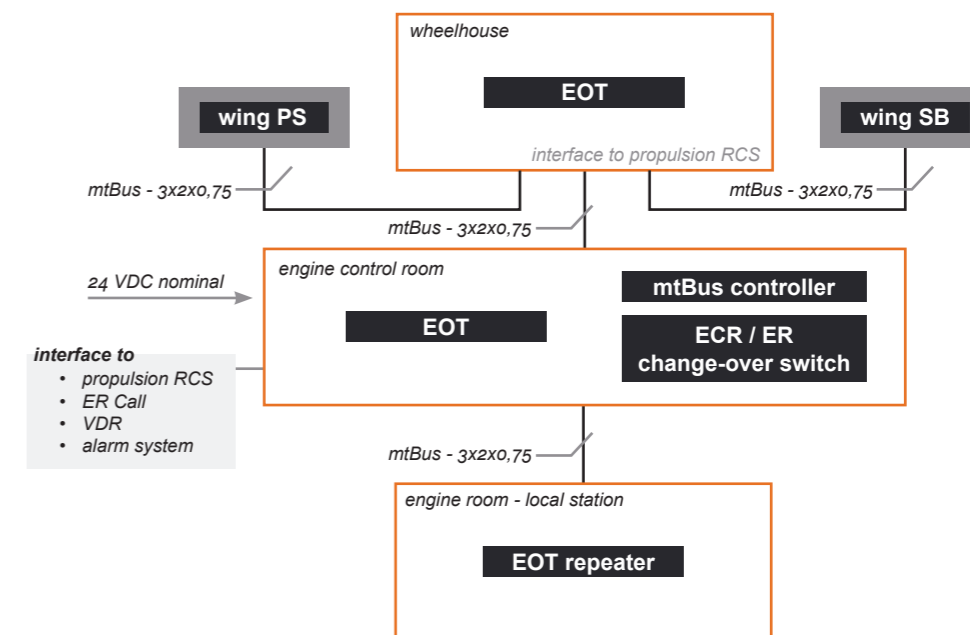


VDR interface acc. to  
IEC 61162-2

## DATA & FEATURES

- A067 mtBUS RS485 control
- two handle types and two unit sizes available
- double EOT for twin main engine control available
- various interface technologies to propulsion RCS
- all environmental tests min. acc. IEC 60945
- full operation EOT repeater for ME local station
- type approved by: DNV-GL, RMRS

## TYPICAL SYSTEM COMPOSITION



## PERIPHERY EQUIPMENT

### SMALL CONTROL LEVER

2080099588

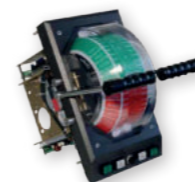


EOT | A067.1252-000-0111

- dimension: h190 x w130 x d200mm
- IP56 (front)
- electrical shaft operation

### DOUBLE CONTROL LEVER FOR WING CONSOLE

2080100150

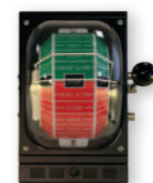


EOT | A067.3252-000-0211

- dimension: h190 x w130 x d200mm
- IP56 (front)
- 2x electrical shaft

### EOT BRIDGE LEVER

2080100641



EOT | A067.2313-431-0111

- dimension: h324 x w192 x d200mm
- IP56 (front)
- electrical shaft operation

# PERIPHERY EQUIPMENT

## DOUBLE EOT BRIDGE LEVER

2080100356

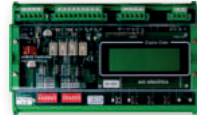


EOT | A067.4343-431-0211

- dimension: h324 x w192 x d200mm
- IP56 (front)
- 2x electrical shaft operation

## mtBUS CONTROLLER

2000103003



EOT | A067.74

- with VDR interface
- 24 VDC nominal

## CHANGE OVER SWITCH

2030403002



EOT | A067.T0-8221e

- ECR/ER command change over
- 48 x 48mm
- double pole double throw (DPDT)

## EOT/EEOT RECEIVER ER *with wall box*

2080100453



EOT | A067.5032-100-0140

- dimension: h300 x w316 x d135
- IP56 (front)
- incl. call bell

## EOT RECEIVER ER *with wall box*

2000104996



EOT | A067.5034-100-0120

- dimension: h262 x w222 x d146mm
- IP56 (front)
- ø180mm scale

## REPLACEMENT KIT *control PCB for all A067 EOT types*

2080101151



EOT | PCB E551.2

- PCB E551.2
- connection cable
- replacement instruction
- cover plate

## REPLACEMENT KIT

2200000175

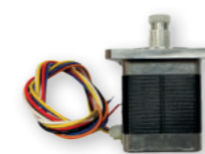


EOT | PCB E551.3

- PCB E551.3
- connection cable
- replacement instruction
- cover plate

## MODULE, STEPPER MOTOR

2033000400

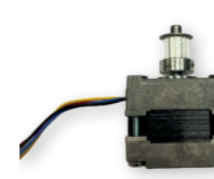


EOT | PCB E551.2

- with synchro wheel 17/24 (lever side)

## MODULE, STEPPER MOTOR

2080101070



EOT | SH4018S0406-A (SHS 39/200-1670)

- with synchrowheel 15 teeth (pointer side)

## MODULE, STEPPER MOTOR

2033000396

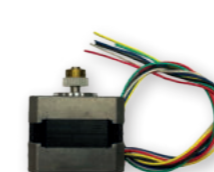


EOT | PH264-02

- with synchro wheel 17/24 (small wing EOT)

## MODULE, STEPPER MOTOR

2030299032



EOT | PK243

- with gear wheel 24 teeth

# PERIPHERY EQUIPMENT

## POTENTIOMETER 2KΩ HIGH PRECISION (for RCS interface)

2080101173



EOT | PW620-19d

- with synchro wheel 51

## POTENTIOMETER 500Ω HIGH PRECISION (for RCS interface)

2080101238



EOT | PW620-19d

- with synchro wheel 51

## POTENTIOMETER 5KΩ LIN=0,3%

2080101074



EOT | SP2803

- with 51t for EOT lever desired value

## REPAIR KIT FOR POINTER BELT

2000106263



EOT |

- l=330mm

## REPAIR KIT FOR POINTER BELT

2000106262



EOT |

- l=230mm

## TOOTH BELT

2019999313

2019999314

2019999315

2019999316



- b=6
- T2
- 5/177,5mm

- b=6
- T2
- 5/230mm

- b=6
- T2
- 5/305mm

- b=6
- T2
- 5/330mm

2019999317

2019999318

2019999319

2019999320



- b=6
- T2
- 5/380mm

- b=6
- T2
- 5/480mm

- b=6
- T2
- 5/540mm

- b=6
- T2
- 5/620mm

# PERIPHERY EQUIPMENT

## MICROSWITCH (COMPLETE 1-FOLD ASSEMBLY)

2200000250



EOT |

- including connection cable

## MICROSWITCH (COMPLETE 2-FOLD ASSEMBLY)

2200000181



EOT |

- including connection cable

## MICROSWITCH (COMPLETE 3-FOLD ASSEMBLY)

2200000259



EOT |

- including connection cable

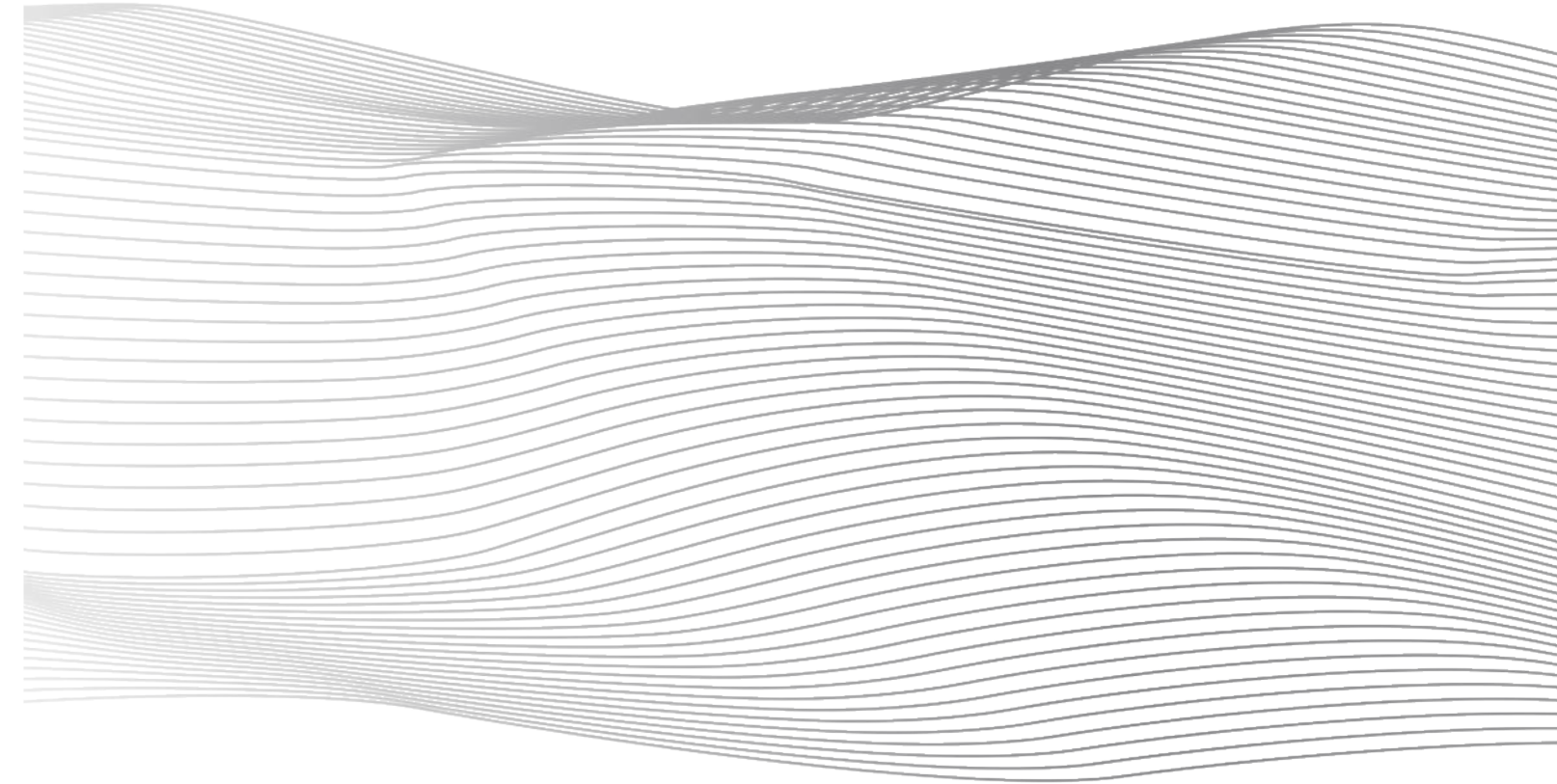
## MICROSWITCH (COMPLETE 4-FOLD ASSEMBLY)

2200000056



EOT |

- including connection cable



### contact for project specific requests

Due to the scalable system with various numbers of expansion stages, operational features and interfaces to the potential main engine remote control system, a specific request is required. Kindly provide as much details as possible during your requiring email, making us able to provide a qualified offer in due time.

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info@sm-electrics.de  
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### CONTACT

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***sm electrics***

