

# OPERATING DEVICE MMIT

HIGHLIGHTS AND TECHNICAL INFORMATION





The operating device **MMIT** as part of the train radio system **MESA®26** is designed for the menu-driven operation of digital and analogue train radio. It fulfils the requirements for the operation on rail-vehicles and it is designed for the console installation in the driver's cabin. With the use of handset and a loudspeaker the driving crew is able to carry out diverse communication tasks.

Funkwerk's operation devices are developed in accordance with the specification as well as to European standards. They are characterised by its innovative and intuitive ease of use. Except for permanently reachable key functions our MMIs are mainly controlled by softkeys to facilitate its use and to provide the flexibility for functional adaptations without needed hardware modifications.

The **MMIT** has a display with touch function and a keyboard with 6 keys with dedicated function. The touch display shows a keyboard with 14 soft keys and 4 additional keys with dedicated functions.

The display is covered with anti-reflection coated protective glass. The only key with key-inhibit function is the emergency call key.

# **HARDKEYS**

- ▶ Emergency call
- Call to secondary controller
- ▶ Call to conductor
- ▶ Passenger announcement
- Train to train call
- Power button

All other operating functions will be controlled by softkeys.

# TECHNICAL DATA

#### DIMENSIONS & WEIGHT

CONSTRUCTION	closed housing
HEIGHT	138 mm
WIDTH	296 mm
DEPTH	39 mm
WEIGHT	1.4 kg

### DISPLAY

DESIGN	transmissive TFT colour LCD with touch function	
EFFECTIVE VISIBLE SURFACE	154 x 86 mm	
RESOLUTION	1024 x 600 pixels	
READING ANGLE AT 25 °C	vertikal: ±80°, horizontal: ±80° (bei CR ≥ 10)	

#### **ENVIRONMENTAL CONDITIONS**

PROTECTION CLASS	front: IP54 according to DIN EN 60529 rear side: IP20 according to DIN EN 60529
VIBRATION AND SHOCKS	according to DIN EN 50155
EMC	according to DIN EN 50121-3-2 and DIN EN 50155

#### **CLIMATIC CONDITIONS**

OPERATING TEMPERATURE RANGE	OT3: -25 to +70 °C
EXTENDED TEMPERATURE RANGE	ST1: OT3 +15 °C (at switch-on for max. 10 min)
STORAGE TEMPERATURE RANGE	-40 °C to +70 °C (in original package)
MAXIMAL GRADIENT	± 1 °C/min of ambient temperature
MAXIMAL HUMIDITY	75 % in annual average
RELATIVE HUMIDITY	according to DIN EN 50155
ALTITUDE AND PRESSURE FLUCTUATION	-100 m to 1800 m above sea level

#### **INTERFACES**

X1: CENTRAL UNIT CR26 . CR26P . CR26S	25-pin D-Sub male
X6: RS422 (DATA APPLICATION/IFS)	15-pin D-Sub female
X7: ETHERNET	4-pin M12 female (coding D)
X8: HANDSET, LOUDSPEAKER, DIGITAL I/O	25-pin D-Sub female
MISCELLANEOUS	Protective earth

### POWER SUPPLY

NOMINAL INPUT VOLTAGE

24 ... 110 VDC (On-board power supply)



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