

Operating Device

MMIT



The operating device MMIS 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.

OPERATING CONCEPT

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.

The following functions are realised by the hard keys:

- » Emergency call
- » Call to secondary controller
- » Call to conductor
- » Passenger announcement
- » Train to train call
- » Reset button

TECHNICAL DATA

DIMENSIONS / WEIGHT

Construction	closed housing
B x H x T	(296 x 138 x 39) mm
Weight	1.4 kg

DISPLAY

Design	transmissives TFT-Farb-LCD mit Touch-Funktion
Effective visible surface	(154 x 86) mm
Resolution	(1024 x 600) Pixel
Reading angle at 25 °C	vertikal: ±80°, horizontal: ±80° (bei CR \geq 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 5015

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 EN 50155
Altitude and pressure fluctuation	-100 m to 1800 m above sea level

TECHNICAL DATA

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: X2: 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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