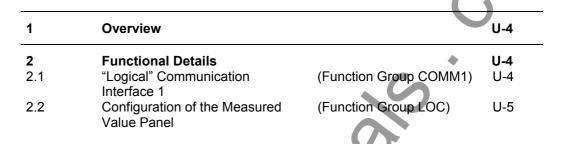# MICOM C232

## Compact Bay Unit
## for Control and Monitoring
## with Protection Functions

**Version C232-302-401/402/403/404-604**

## Upgrade
## Documentation

**C232/EN M/A33**

# Contents

# C232 Upgrade Documentation

## Upgrade from -603 to -604

In the new software version –604 of MiCOM C232 several new features and changes on existing features have been added. These are described in the documentation listed below. The reference document is C232/EN M/A23.

### 1 Overview

| Function Group / Function | Changes | Type |
|---|---|---|
| LOC | Additional measured value for operation panel | additional |
| COMM1 | Bug fixing for interface protocol according IEC 60870-5-101 | Bug fixing |

### 2 Functional Detail

2.1 "Logical" Communication Interface 1 (Function Group COMM1)

For the interface protocol according IEC 60870-5-101 the following bug fixes are provided:

- The acknowledgement of the general interrogation provides the correct cause of transmission (COT).

- Correct cyclic transmission of measured values with negative value.

- All messages inside the general interrogation are send without time tag

- Internal communication messages of MiCOM C232 are not transmitted.

- ASDU address length of 2 Bytes is supported (Address length ASDU, [003 193]).

- Process information in monitor direction with 7 Byte time tag is supported. (Time tag length, [003 198]). Either *ASDU*-s of the set <2>, <4>, <6>, <8>, <10>, <12>, <14>, <16>, <17>, <18>, <19> for 2 Byte time tagging or of the set <30 - 40> for 7 Byte time tagging are used.

# C232 Upgrade Documentation

(continued)

### 2.2    Configuration of Operation Panel (Function Group LOC)

The following measured value has been added to the selection table of the operation panel (LOC: Fct. Operation Panel, [053 007]):

| Function Group / Function | Description | Address |
|---|---|---|
| MEASI | Scaled value IDC,lin | 004 180 |

The following measured values have been added to the selection table of the numerical measured values (LOC: Fct.asg. num. displ., [221 041]):

| Function Group / Function | Description | Address |
|---|---|---|
| MEASI | Scaled value IDC,lin | 004 180 |
| MEASI | Current IDC | 004 134 |
| MEASI | Current IDC p.u. | 004 135 |
| MEASI | Curr. IDC,lin. p.u. | 004 136 |

The following measured values have been added to the selection table of the measured values to be displayed in bar form (LOC: Fct. asg. bar displ.., [221 042]):

| Function Group / Function | Description | Address |
|---|---|---|
| MEASI | Current IDC p.u. | 004 135 |
| MEASI | Curr. IDC,lin. p.u. | 004 136 |

# C232 Upgrade Documentation
(continued)

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