# Easergy MiCOM P34x
## (P341, P342, P343, P344, P345)

## Generator Protection Relay

## P34x/EN TC/Rf7

## Tissues Conformance Statement (TICS)

**Note**    The technical manual for this device gives instructions for its installation, commissioning, and operation. However, the manual cannot cover all conceivable circumstances or include detailed information on all topics. In the event of questions or specific problems, do not take any action without proper authorization. Contact the appropriate Schneider Electric technical sales office and request the necessary information.

Any agreements, commitments, and legal relationships and any obligations on the part of Schneider Electric including settlements of warranties, result solely from the applicable purchase contract, which is not affected by the contents of the technical manual.

This device MUST NOT be modified. If any modification is made without the express permission of Schneider Electric, it will invalidate the warranty, and may render the product unsafe.

# TISSUES CONFORMANCE STATEMENT (TICS)

| Date (month/year): | 10/2020 |
|---|---|
| Products covered by this chapter: | This chapter covers the specific versions of the MiCOM products listed below. This includes *only* the following combinations of Software Version and Hardware Suffix. |
| Hardware suffix: | L (P341, P342), M (P343, P344, P345) |
| Software version: | B5 (P341, P342, P343, P344, P345), E5 (P341) |
| Connection diagrams: | This includes a list of the Connection Diagrams for the Products covered by this document.<br><br>10P341xx (xx = 01 to 12)<br>10P34199<br><br>10P342xx (xx = 01 to 17)<br>10P343xx (xx = 01 to 19)<br>10P344xx (xx = 01 to 12)<br>10P345xx (xx = 01 to 07)<br>10P391xx (xx = 01 to 02) |

## CONTENTS

# *Notes:*

# 1 INTRODUCTION

According to the UCA IUG QAP, the Technical Issues Conformance Statement is required to perform a conformance test and is referenced on the certificate.

This document specifies the conformance level of MiCOM P34x with firmware version B5 (P341, P342, P343, P344, P345), E5 (P341) to the logged Technical Issues (TISSUES) against the IEC 61850 set of standards.

For more details on the logged Technical Issues, refer to the website:

http://www.tissues.iec61850.com

## 2 MANDATORY INTOP TISSUES

During the October 2006 meeting, IEC TC57 Working Group 10 decided that:

- Green Tissues with the category "IntOp" are mandatory for IEC 61850 Edition 1
- Green Tissues with the category "Ed.2" should not be implemented.

Below table gives an overview of the implemented IntOp Tissues.

| Part | Tissue | Description | Category IntOp/IntOp2 | Implemented Y/na | Notes |
|------|--------|-------------|----------------------|------------------|-------|
| 6 | 1 | Syntax | IntOp | Y | |
| | 5 | tExtensionAttributeNameEnum is restricted | IntOp | Y | |
| | 8 | SIUnit enumeration for W | IntOp | Y | |
| | 10 | Base type for bitstring usage | IntOp | Y | |
| | 17 | DAI/SDI elements syntax | IntOp | Y | |
| | 169 | Ordering of enum differs from 7-3 | IntOp | na | angRef is Optional in WYE, not included in P40 products |
| | 245 | Attribute RptId in SCL | IntOp | Y | |
| | 529 | Replace sev - Unknown by unknown | IntOp | Y | |
| 7-2 | 30 | control parameter T | IntOp | Y | |
| | 31 | Typo | IntOp | Y | Documentation only |
| | 32 | Typo in syntax | IntOp | Y | |
| | 35 | Typo Syntax Control time | IntOp | Y | |
| | 36 | Syntax parameter DSet-Ref missing | IntOp | Y | |
| | 37 | Syntax GOOSE "T" type | IntOp | Y | |
| | 39 | Add DstAddr to GoCB | IntOp | Y | |
| | 40 | GOOSE Message "AppID" to "GoID" | IntOp | Y | |
| | 41 | GsCB "AppID" to "GsID" | IntOp | na | GSSE not implemented |
| | 42 | SV timestamp: "EntryTime" to "TimeStamp" | IntOp | na | SV model not implemented |
| | 43 | Control "T" semantic | IntOp | Y | |
| | 44 | AddCause - Object not sel | IntOp | Y | |
| | 45 | Missing AddCauses | IntOp | | |
| | 46 | Synchro check cancel | IntOp | na | Syncro check not supported in P40 products |
| | 47 | "." in LD Name? | IntOp | Y | |
| | 49 | BRCB TimeOfEntry (part of #453) | IntOp | - | |
| | 50 | LNName start with number? | IntOp | Y | |
| | 51 | ARRAY [0..num] missing | IntOp | Y | |
| | 52 | Ambiguity GOOSE SqNum | IntOp | Y | |
| | 53 | Add DstAddr to GsCB, SV | IntOp | na | SV model not implemented |
| | 151 | Name constraint for control blocks etc. | IntOp | Y | |

| Part | Tissue | Description | Category IntOp/IntOp2 | Implemented Y/na | Notes |
|------|--------|-------------|----------------------|------------------|-------|
| | 166 | DataRef attribute in Log | IntOp | na | Logging not implemented |
| | 185 | Logging - Integrity period | IntOp | na | Logging not implemented |
| | 189 | SV Format | IntOp | na | SV model not implemented |
| | 190 | BRCB: EntryId and TimeOfEntry (part of #453) | IntOp | - | |
| | 191 | BRCB: Integrity and buffering reports (part of #453) | IntOp | - | |
| | 278 | EntryId not valid for a server (part of #453) | IntOp | - | |
| | 297 | BRCB: SqNum generation | IntOp | Y | |
| | 298 | BRCB: SqNum attribute data type | IntOp | Y | |
| | 305 | BufTim=0 with 2 or more data set changes | IntOp | Y | |
| | 322 | BRCB: Buffer purge when changing configuration | IntOp | na | |
| | 329 | BRCB: Conditions for setting buffer overflow | IntOp | na | |
| | 333 | Enabling of an incomplete GoCB | IntOp | Y | |
| | 335 | BRCB: Clearance of BufOvl flag | IntOp | Y | |
| | 348 | TimeOfEntry is independent of EntryId | IntOp | Y | |
| | 349 | TimeOfEntry has two definitions | IntOp | na | |
| | 453 | Reporting & Logging model revision | IntOp | na | |
| | 1281 | Default for TrgPos.GI is TRUE | IntOp | | |
| 7-3 | 28 | Definition of APC | IntOp | Y | |
| | 54 | Point def xVal, not cVal | IntOp | Y | Documentation only |
| | 55 | Ineut = Ires? | IntOp | Y | |
| | 63 | mag in CDC CMV | IntOp | Y | |
| | 65 | Deadband calculation of a Vector and trigger option | IntOp | Y | |
| | 219 | operTm in ACT | IntOp | na | operTm is Optional in ACT, not included in P746 products. |
| | 270 | WYE and DEL rms values | IntOp | Y | |
| | 1199 | BCR | IntOp | Y | |
| 7-4 | 252 | AlmThm should have CDC SPS | IntOp | | |
| 8-1 | 116 | GetNameList with empty response? | IntOp | Y | |
| | 165 | Improper Error Response for GetDataSetValues | IntOp | Y | |
| | 183 | GetNameList error handling | IntOp | Y | |
| | 246 | Control negative response (SBOns) with LastApplError | IntOp | Y | |

| Part | Tissue | Description | Category IntOp/IntOp2 | Implemented Y/na | Notes |
|------|--------|-------------|----------------------|-------------------|-------|
|  | 545 | Skip file directories with no files | IntOp | na |  |

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| *Note* | *Tissue\* = Tissue is not clarified in enough detail for testing*<br>*Tissue\*\* = Tissue status is not green, but is clarified in enough detail for testing* |

| 3 | OTHER TISSUES |
|---|---|

Complete below table of other implemented tissues, these tissues with the category "Ed2" should have no impact on interoperability.

| Part | Tissue | Description | Implemented Y/na | Notes |
|------|--------|-------------|------------------|-------|
| 6 | 7 | Duplication of attributes | Y | |
| | 9 | Data Set reference in CBs Y | Y | |
| | 272 | Private section type | Y | |
| | 285 | Inconsistent uniqueness constraints | Y | |
| | 307 | Flag buffered/unbuffered reporting in element service | Y | |
| | 315 | Number of client associations | Y | |
| | 425 | SCL does not support VisString65 | Y | |
| 7-1 | 250 | Trigger option used, if not defined | Y | |
| 7-2 | 236 | Name length | Y | |
| | 300 | Attribute Resv in BRCB | Y | |
| | 325 | TimeStamp definition | Y | |
| 7-3 | 205 | Device name plate – missing description "d" and "dU" | Y | |
| 7-4 | 79 | AutoRecSt and Lockout | Y | |
| | 147 | Mod | Y | |
| | 263 | Setting Local time or summer/winter time | Y | |
| | 830 | Mode/Behaviour & Quality | Y | Partly supported |
| 8-1 | 118 | File directory | Y | |
| | 177 | Ignoring OptFlds bits for URCB | Y | |
| | 231 | ConfRev definition | Y | |
| | 777 | AddCause values | Y | |
| | 827 | Mandatory ACSI services | Y | |

*Notes:*

## Customer Care Centre

**http://www.schneider-electric.com/ccc**