

SIEMENS

TELEPERM M

Produktinformation / Product information

Anschaltbaugruppe TPM 478-1 (6ES7478-2DA01-0AC0)

Interface module TPM 478-1

Deskriptoren / Descriptors

TELEPERM M , AS 488/TM , TPM 478-1, Firmware E/A-Baugruppen

TELEPERM M , AS 488/TM , TPM 478-1, Firmware I/O-modules

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Shortform:

The deliverable interface module TPM 478-1 (6ES7478-2DA01-0AC0) since 1999/08/01 differ from the predecessor interface module TPM 478 (6ES7478-2DA00-0AC0) by a firmware correction (removed error) and extended functions. In the following these changes and the conditions of use will be explained shortly.

Concerning the following MLFB:

6ES7478-2DA01-0AC0 Interface module TPM 478-1

Description:

The interface module TPM 478-1 will be used for two general functions. The first function offers the connection of AS 488/TM and BRIDGE CS-L2 to the system bus CS 275, the second function allows to operate the TELEPERM M I/O modules together with the I/O bus module TBX 478 at AS 488/TM.

The interface module TPM 478-1 (6ES7478-2DA01-0AC0) differ from the predecessor interface module TPM 478 (6ES7478-2DA00-0AC0) only within the functionality of the I/O system by a firmware correction (removed error) and extended functions.

The interface module TPM 478-1 (6ES7478-2DA01-0AC0) since release 1 offers compatibility to the predecessor interface module TPM 478 (6ES7478-2DA00-0AC0) with the system sw release M01.06 at least. The module TPM 478-1 runs on all three useable CPU (CPU 488-4, CPU 486-3, CPU 488-3) with system software release M01.06 and better.

The extension of functionality for using the process alarm logging with slave modules in non-cyclic mode described below can be used from system software releases since M01.06.

Firmware difference to the predecessor interface module

1. The changes in firmware of TPM 478-1 process the simulation bit of the modules 6DS1620-8AA und 6DS1621-8AA in the right manner without the necessity of special software configuration. An existing special software configuration for this case doesn't matter.
2. The former release of TPM 478 processed an alarm of the I/O module no.61 non-cyclic, all other binary input as alarm slave module were only read cyclic. Sometimes it was necessary, to change in migration projects the software configuration within ZYK=1 for a better time situation of reading the slave modules.

Together with the interface module TPM 478-1 it is now possible to declare the slave modules with SYST.WART as an acyclic type. When the collected interrupt (master) occurs, the firmware will read the non-cyclic declared slave modules simultaneously with the data of no.61. With this configuration there is no more necessity for changes within ZYK=1.

Directions for use in applications with process alarm signals:

If the application uses process alarm signals with module no.61 („SF61“) together with modules 6DS1310-8Ax, please observe within the SYST.WART-configuration, that word configuration (16 bit) is imperative. In configuring of modules 6DS1505-8AA the formerly recommended method with word configuration for using dual-systems is now imperative. Further changes in existing configurations aren't necessary.

Product information for the interface module TPM 478-1

Dokumentation for users:

The mentioned changes in functions and extensions will be described within the system documentation of AS 488/TM since release M02.01 (also on the diskette for ASBEDIEN with file PERPRO_E.doc).

A supplement to PERPRO_E.doc concerned to these changes is added in the appendix. Please insert into „Supplementary System Documentation AS 488/TM“, C79000-G8076-C700, section 6, Supplementary Functions for SYST.WART System Operation, following page 5.

Directions for use in questions of maintenance at AS 488/TM-systems:

When using TPM 478 within your installation and planning a replace by TPM 478-1, this requires the system software release M01.06 at least. The user can get this release by update or upgrade.

Setting of ZY= for alarm generating modules

ZY=1 must be entered for the module "SF61" generating the collected interrupt (master). If this module is to be monitored cyclically in addition (e.g. on S305), an above cycle +1 must be selected for this module. It is then meaningful to enter e.g. ZY=33 resp. ZY=65 for interrupt + monitoring cycle.

If inputs of the master module should also be read in the AS cycle, it should be ensured that the interrupt trigger on the module SF61 is released for both positive and negative edges (jumper X3 for 6DS1601-8BA). Please note, that an interrupt will be generated only by the positive edge nevertheless. This may be desirable, if process signals are wired to the master module.

But usually process signals are only wired to the group interrupt modules (slave modules). Therefore both edges have to be released on these slave modules with signal groups including cyclically read signals.

Up from AS software release M01.06/M02.00 - in combination with TPM478 module issue 9 - following formula applies to the configuration of ZY with slave modules:

$$ZY = (2 * BE\text{-}No.) + 1 \quad (=3,5,7,9,\dots,97)$$

In this connection BE-No. (1...48) is the number of the input of the master module, the PINT signal of the respective slave module is wired to. In this case the slave modules were read together with the master, if they give an interrupt.

The slaves configured in this way may additional be monitored cyclically, if a monitoring cycle is configured for the master module. This cycle applies to all slave modules.

Product information for the interface module TPM 478-1

Example for slave configuration:

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+-----+
| PERIPHERIE-BAUGRUPPEN PROJEKTIEREN   ASX88/TM
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ANSCHLUSS:	AN=1	AG-AG-Kopplung
	AN=2	S7-L2DP
	AN=3	M7-IF-MODUL
	AN=4	TELEPERM M EA
	AN=5	ALLE BAUGRUPPEN LOESCHEN (BEI AN=0)

AN=4	TELEPERM M EA
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BAUGRUPPEN-NR. (STECKPLATZ)	NR= 56	L=1
BAUGRUPPEN-TYP (MLFB-NR.)	TY=6DS1602-8BA	
KANAL-ANZAHL	32	
BEARBEITUNGSZYKLUS	ZY= 7	

L= BAUGRUPPE LOESCHEN

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PROTOKOLL AUF: DR.   1 GE,1,0;
PR=1          MONITOR GE,5,0; *
BLAETTERN F=1 PC/PG GE,7,6;
                UEBERSICHT :  MP = 0
+-----+

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Display shown after following inputs:

"BE;"	Input mode
"MP=14;"	Display selection
"AN=4;"	TELEPERM M module
"NR=56;"	Slot number (BAUGRUPPEN-NR.)
"TY=6DS1602-8BA;"	Module (BAUGRUPPEN-TYP)
"ZY=7;"	Processing cycle (BEARBEITUNGSZYKLUS)

for the interrupt slave with PINT at BE3
of the master (= 2*3 + 1)

Existing configurations behave as before. There is no force for changing the configuration, if the reaction was satisfactory so far.

Note: After inserting a new master or slave module, an (active) edge should be given to a free input of this module, if the next edge from the process cannot be waited for. By this the process image will be updated immediately.