ZIR24 TMS.PTP 2021ver.2.4.7.2 i

The syntax is:

SIMUL status] [n1] [n2] [n3] [n4] [ox]

where

status type of status to display. See description below.

n 1 to 4 additional numbers. See description below.

mx 1 to 8 common memory-registers (M-register = 1 – 96) will be shown when status = +4096

tx 1 to 8 common times (TT-timer 1-64) will be shown when status = +4096

Ox Option x

x=+1 detector-logic failure is used instead of detector failure when status = +16

x=+2 extended detectors and digital inputs (1-128) will be shown when status = +1, extended detector logics (1-200) will be shown when status = +32 and extended digital outputs (1-128) will be shown when status = +8 and F993N17 = +16.

x=+4 640 extra software flags, numbered from 301 to 940, will be added to the original software flags when status = +4.

If the command is called without parameters (status, n), the controller will be set in simulator mode when signals is off. In this mode the group cards, control cards and integrated detector cards will not be checked. A fault reset will be performed if the controller is in failure mode.

If the command is called with additional parameters, different status will be displayed. Each status block starts with the sequence STX+CR+LF (STX = ASCII 2) and each line ends with CR+LF. If the command DELAY has been given before this command each block will be displayed every one second.
In this mode it is also possible to set the general inputs (1-255), when code level 1 is open or simulator mode is active.

One input is set by the following command:

i=x

where

i = input no. 1-255 (original hardware inputs), 301-428 (detector inputs 1-128) or 501-628 (digital inputs 1-128)

x = type of setting (0 = deactivation, 1 = activation or 2 = pulse activation).

Multiple inputs are set active by the following command:

Sx=y

where

x = block of 16 inputs. (0 = input 1-16, 1 = input 17-32,..15 = input 240-255, 21-28 = input 301-428 and 41-48 = input 501-628)

y = binary value of which inputs in the block to be set active, y = 1-65535

Multiple inputs are deactivated by the following command:

Rx=y

where

x = block of 16 inputs. See above

y = binary value of which inputs in the block to deactivate, y = 1-65535

Type of available status variable:

+1 Inputs 1-255. 1 ASCII character represents 4 inputs (hex value), which gives a total of

64 characters. An active input gives an active bit. If option ox=+2 then an extra line will be added, the first half will contain detectors numbered from 65 to 128 and last half digital inputs numbered from 65 to 128, i.e. a total of 32 characters.

+2 Action table inputs 1-80. Same format as x = +1.

+4 Software inputs 1-255 with same format as x = +1. If option ox = +4 then an extra line will be added, which contains the extended software inputs 301-940, i.e an extra line wirh160 ASCII characters.

+8 Outputs 1-64 (outputs 1-128 when option ox = +2). Same format as x = +1.

+16 Detector failure 1-64 or detector logic failure 1-200 (option ox = +1). Same format as x = +1.

+32 Detector logic 1-96 or 1-200 (option ox = +2). Same format as x = +1.

+64 Group status 1-64. 1 ASCII character per group.

+128 Ring status for a maximum of 8 rings. Each defined ring consists of two ASCII characters and two strings; The first ASCII character is the ring number and the second is the belonging intersection number. String 1 describes the control mode and consists of 7 characters and string 2 describes the stages and has 9 characters. Each ring is separated with a SPACE. An example could be: 12MANUAL S1/S2 102 (ring 1 belongs to intersection 2 and is in MANUAL mode)

+256 Controller status. The printing format is: Pxxyy Sxxyy Cx Tx xxyy. Pxxyy gives the current plan no. xx controlled by source yy. Sxxyy gives the current situation no. xx controlled by source yy (Cf chapter 2.3). Cx gives the type of plan (F3PN1) and Tx gives the no. Of the active timetable. xxyy is current base cycle counter and cycle counter respectively in hex values.

+512 Intersection status. 12 characters per intersection and each intersection is separated with a SPACE. The printing format is: 1:x Cx Ex xx. 1: intersection 1, x gives the current control state (0=dark, 1= flashing yellow, 2=Allred, 3=start-up, 4=normal). Cx gives the control mode (0=normal, 1=fixed control, 2=manual control, 3=local control, 4=standby (dark, flashing yellow), 5=manual standby (dark, flashing yellow), 6=fault mode (dark, flashing yellow). Ex gives failure mode (x=0 => no faults, x=1 => fault, x=2 => major fault) and xx is either ON (signals on) or OF (signals off).

+1024 Group display 1-64. 1 ASCII character per group. (0 = dark, +1 = green, +2 = yellow, +4 = red).

+2048 Control block's instruction counter 1-80. 1 character per control block.

+4096 Control block registers and/or PRIO logic variables depending of the additional numbers n1 to n4.

If n > 100 the variables for PRIO logic number n-100 will be displayed or else registers of control block n will be displayed.

The format of the PRIO logic variables is MA STAT DIS WNP12S TW TP CW CP EOF. 2 ASCII characters (Hex format) are used for the variables MA, STAT, DIS, TW, TP, CW, CP and EOF, and 6 ASCII characters ('0' or '1') is used for WNP12S, i.e. 22 characters for each given PRIO logic.

The format of the control block registers are STAT INS A B CL CH D I0 I1 T0 T1. 2 ASCII characters (Hex format) are used for STAT, INS, T0 and T1 and 4 ASCII characters for each of the other 16-bit registers, i.e. 36 characters for each given control block.

Each specified mx (memory-register) will be displayed as 4 ascii characters (hex format) and each specified tx (TT timer) will be displayed as 2 ascii characters (hex format). The characters will be added as they appear in the definition.

+8192 Detector logic counting. 1 ASCII character (hex format) per detector gives the number of counts since the last writing.

+16384 Operation panel emulation. The writing to the LCD display is shown (40 ASCII characters).

ASCII character 41-42 gives the cursor position in hex format and ASCII character 43-44 gives the binary value in hex format of the active LEDs on the panel (off=+1, on=+2, flash=+4, red=+8, next=+10, man=+20, local=+40, fixed=+80). In simulator mode the keys on the operation panel can be activated by giving a command as Kx=1, where x is the key number. Code level 1 must be open. The key number of the programming keys is calculated as:

(row no - 1) + (column no - 1) * 4.

and the key number of the control keys is as follows:

80=signals off, 81=signals on, 82=flash, 83=all red, 84=next stage, 85=manual control, 86= local control, 87=fixed control.

A maximum of 20 key commands can be buffered.

Note: no implementation ZIR24 system without ZIR technical support, for implementation support contact Systemy Sterowania Ruchem sp. z o.o, ul. Przemysłowa 5, 41-902 Bytom, PL