PROGRAM DESCRIPTION
TAD 3

Program: T108A243

This description is valid for:

Weight indicator **TAD 3** with application program **T108A243**

See also the following descriptions

Weight Indicator TAD 3, Operating instructions, Quick installation

Weight Indicator TAD 3, Technical Manual (www.vishaypg.com/doc?35184)

If these descriptions in any case are contradictory, this description is valid.

Program options   **'Batching' and 'Flow rate' are disabled in this program.**

Option codes: **This program requires program option codes for
                         07:     Option 7**

General

In a crane weighing application where the loadcell is mounted so that the rolled out wire is affecting the weight, this program has functionality to compensate for the weight of the rolled out wire.

The effect on the weight of the rolled out wire is linear and can be compensated for if you know the length of the rolled out wire. Therefor an incremental encoder should be mounted on the crane that gives a pulse train to input 1 on TAD 3, as the wire rolls out or in. The encoder should be arranged so that the pulse train should give not more than 50 pulses/sec. In addition to that the TAD 3 also needs a signal when the wire is in a special calibration position (no wire rolled out).

Required inputs
The program requires the following inputs

TAD 3 Input 1 Pulse input 1 from incremental encoder
TAD 3 Input 2 Pulse input 2 from incremental encoder

DIO 3 Input 1 Active when in wire calibration position (no wire rolled out)

Set-Up and Calibration
The calibration of the weight should be done as described in the standard manual. If dead-weight calibration method is used, the different known weights should be lifted to the same level in all calibration points used. After the calibration the zero should be set when the crane is in the wire calibration position (no wire rolled out). The 'set zero' function is only allowed in this position, while it is possible to tare the weight in all positions.

A new set-up parameter for the wire weight compensation, is added in menu 'Special' where the number of pulses/kg is set. This parameter can be set manually by entering the value from the front panel, or it can be set automatically. Automatic setting of this parameter can be done when 'Special' menu is shown, in the following way.

1. Position the crane in the 'wire calibration position' (input 1 on DIO activated).
Press the '-' key (minus key, the key with the green start symbol)
It is essential that the weight is stable when this is done. The instrument
waits a few seconds for stable weight, and then shows a window with the
shaft encoder counter (0 at this time) and the actual weight.

2. Position the crane in an other position (with much wire rolled out).
Press the '.' Key(dot key, the key with the red stop symbol). Also at this   time
it is essential that the weight is stable. If not the instrument waits a
few seconds for a stable weight, and then shows the shaft encoder counter,
and the actual weight.

3. Press 'BACK' to view the new calculated parameter value 'pulses/kg'

Normal function

The wire length is zeroed when the crane is positioned in the 'wire calibration position'
(no wire rolled out). The TAD 3 hereafter counts the pulses and compensates the
weight value with the calculated weight of the rolled out wire.

The tare function works as described in the standard manual.

Test

Test the wire compensation function by reading the weight value in any position, and
then move to another position and read the weight value. If the wire weight parameter
was set up correctly, then you should read the same weight value at different levels.

Remote display

Remote display changed to be compatible with Siebert large digit display.
(End character in display string changed to ETX).

Level supervision

Levels 7 and 8 are removed from the normal level editing menu, and the value for
these levels can only be set in set-up mode under the 'Special' menu

New and modified Set-Up parameters

Following Set-Up parameters are new or have new choices.

Menu general

    Display info

[5]	Special	New choice. Displays the shaft encoder
	<Date/Time>	counter on the display info line.

Menu Special

Pulses/kg	Number of pulses/kg (wire weight)
-99999 to 99999	
<0>	
Level 7	Value for level 7

-99999 to 99999
<0>

Level 8   Value for level 8
-99999 to 99999
<0>

Outputs

If the instrument Set-Up parameter 'Start mode' is set to 'Command' (which means that an start command is required for the instrument to start up), the first output on DIO no. 1 (output 11) is activated from that the power is connected until the 'start command' is given.