

Tough PLC™
Director 1050

Advanced Functionality Modules

Tough'n'Smart™

Pulse Width Module (PWM)

High degree of flexibility in configuring the module

The UTIO-PWM modules are intelligent, flexible and configurable modules for use with Tough PLC, and provides Pulse Train Output (PTO) or Pulse Width Modulation (PWM) output. The modules offer 4 channels of outputs. Each channel can independently be programmed for PTO or PWM outputs. In addition to the outputs, the modules offer high speed quadrature or pulse counting.

The PWM module uses ET 7272B differential drivers and can operate from 3.5-30V external supply. The outputs are protected against accidental shorts for a short duration.

The PWM Modules can be configured as follows:

2 PWM Channels with sourcing outputs

or

1 PWM and 1 PTO sourcing outputs

or

1 PWM differential outputs

or

1 PTO differential outputs

Inputs can be configured for either quadrature encoder input or external start-stop bits for PWM or PTO

Program Storage Module

The UTIO-PRGM module allows a user to back up PLC program. OEMs and System Integrators can use the module to distribute PLC program updates to their customers. End-user plants can change the PLC program without needing a PC and programming software.

To back up a PLC program, user places the module in any of the slots in the PLC. User may place more than one module in the PLC base. This allows users to "gang-program" up to 10 modules using a 12-module base at one time. Using Tough PLC programming software, the user then downloads the program to be backed up to the PLC and issues backup command. User is prompted to indicate all slots in the PLC base which have Backup modules. The programming software then initiates the back-up. LED indicator on the module indicates the back-up activity. Once the modules are programmed with the user-program, they can be taken out after turning the power off.

To restore the user program, a user needs to plug-in the backup module in any of the I/O slots of the plc base. On power-up, the plc will detect the backup module, and restore the user program. If the backup module does not have a valid program, the program is not restored.



**100
KHz**

**Differential
Outputs**

