

WT6000 MFDC FLEXIBLE INVERTER TECHNOLOGY





Call WTC for technical details such as dimensions and sizing charts.

INTERFACE

LOCAL OPTIONAL INTERFACES

LIO	EIP1	DNET/PNET/ PBUS
Minimal I/O applications that do not need external interface. Used for internal I/O within the weld control enclosure such as shunt trip & isolation contactors.	Used for ring topology of Ethernet IP networks when implementing lean cell switches.	Field Bus interfaces for automation. Used as exclusive interface and cannot be combined on a single weld control.

EXTERNAL OPTIONAL INTERFACES:

CIOM - Cabinet I/O Module	DIOM
The first SSPI drop must be connected to this module for internal function- ing I/O and also serves as the power source for all remaining external modules. When used, the LIO module on the local option interface is not required.	Discrete I/O module allows for 16 inputs and 10 outputs to be mapped by the Weld Control for interfacing with devices such as welding guns, trigger switches, and other machine I/O.

INTERFACE OPTIONS TO FIT EVERY NEED

INTERFACE	CODE	DESCRIPTION
LOCAL STANDARD INTERFACE	SSPI	Smart Serial Peripheral Interface
	EIPO	Ethernet IP Network—Channel 0
	ENET	Ethernet Network
	SECV	Secondary Voltage (RAFT / SoftQ)
	сомм	Serial communications port for programming devices
	LIO	Local I/O Module
LOCAL OPTIONAL INTERFACE	EIP1	Ethernet IP Network—Channel 1 (future option)
	DNET	Device Net Fieldbus
	PNET	PROFINET Fieldbus
	PBUS	PROFIBUS Fieldbus
	SECI *	(TD-CURR) Tip Dress Motor Current Monitor
		(SEC-CURR) Secondary Weld Current Monitor
		(FORCE) Electrode Force Monitor
	ECI	User Defined External Control Interface
	GID	Gun ID Network Interface
EXTERNAL OPTIONAL INTERFACE	CIOM	Cabinet I/O Module with Power Supply
	DIOM	User Defined Discrete I/O Module
	AIOM	Analog I/O Module
	CADM	Combination Analog and Digital (I/O) Module
	мссм	Multi Contactor Cascade Module
	GFM	Safety Ground Fault Monitoring Module

POSSIBILITIES & SOLUTIONS

* SECI (TD-CURR):

Used for measuring tip means to detect load in a tip dresser. The terminals SECI (-, +, SH) are calibrated for such use.

* SECI (SEC-CURR):

Used for measuring secondary dresser starter motors as a toroidal coil inside the welding transformer or external secondary coil. Nominal value of 150mV per 1000 A can be adjusted in setup parameters at user's discretion.

* SECI (FORCE)

Used for dynamic measure of weld gun electrode force for immediate feedback to the welding control.

All external interfaces communicate to the Weld Control Module via its SSPI port.

AIOM	CADM
Analog I/O module allows for 2 channels of proportional air pressure control	This is a combination analog and digital module that couples functions like the DIOM and the AIOM into single module. The CADM supports 20 inputs, 10 outputs, and 1 channel of analog proportional air pressure control.

local STANDARD interface

Standard on all Weld Control Modules. Used for combination of Ethernet IP I/O for interfacing with a robot or tool master & also for weld programming and processing data. The SECV terminals will always be present for use with **RAFT** and **SoftQ** features. The SECI terminals are optional

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WTC's high speed interface that provides a backbone of communications between the Weld Control Module and all optional external interfaces. Can be a maximum of 8 external modules of which the CIOM must be the first one after the Weld Control Module. An Ethernet port is standard on all Weld Control Modules used for WTC Network Products. A serial COMM port is used for interfacing data entry panels (DEP) for programming the weld parameters.

ECI

Flexible interface that controls inverter behavior and monitors welding results dependent on specific welding applications.

GID

Communicates with a WTC weld gun identification module placed inside welding guns. Synchronizes all saved parameters and reporting results for unlimited number of welding guns within a body shop.

МССМ	GFM - Ground Fault Safety Module
This is a multi contactor cascade module that allows to switch the output weld current of the inverter to three welding transformers.	Examines ground fault currents - 10mA to 30mA to protect operators holding man- ual DC Integrated Transguns (DCIT). Also monitors the integrity of protective ground circuits & shields and the condition of insu- lating materials . A single GFM can be used for operator safety however installations that require redundancy will require two GFMs.



FOR SPECIALITY APPLICATIONS



WT6000 weld control with ECI - EXTERNAL CONTROL INTERFACE

FEATURES

- Operates on 24 VDC Power Supply.
- 4 sets of Discrete & Analog inputs and outputs configurable to interface with the welding equipment.
- Interface instruments for controlling and monitoring motion, force, current, and other parameters and variables.
- Inverters can be used for controlling welding process from micro filters in the food and beverage industries to large butt welding of railway lines.
- Critical controls are important for all ranges of welding applications.

SMART NETWORKING WITH THE VIEW-R

Network your inverter welding controls with industrialized, air cooled, high-speed network computers distributed within your plant. This allows you to collect welding signatures and maintain your welding database information.



INTELLIGENT WELD GUN STATION CONTROL

Custom engineered for Pilot Plant Operations, these controls quickly connect to any integral transformer weld gun equipped with a GID module (Gun ID Network Interface).

THE DCIT GUN CONTROL WILL IDENTIFY THE WELD GUN AND SEEK ALL-SAVED PARAMETERS AND GUN CHARACTERISTICS FROM A RAFT GATEWAY NETWORK COMPUTER THAT HOSTS A GID MANAGEMENT SYSTEM.

MORE CUSTOM FEATUTRES. MORE CUSTOMIZED BENEFITS.

- DW4 Inverter (1200A @ 10% duty cycle)
- WTC Ground Fault Protection with dual redundancy safety system
- 255 Selector Thumbwheel for schedule selection
- RAFT Feature allows for single trigger auto weld selection for steel welding.
- Weld control module with GID module for identifying welding gun

AGILE & SIMPLIFIED





Pilot Plants enjoy unrestricted manufacturing capability with WTC's Gun ID system that allows diverse parts to be produced anywhere in the plant using any manual welding gun wheeled on a cart.

WTC KNOWLEDGE PORTAL STAY INFORMED & CONNECTED.

WTC customers gain special access to our extensive Knowledge Resource with the latest product documentation, drawings, catalogs, how-to-videos and more.

To get started click on: www.weldtechcorp.com/ Login-procedure





Scan code to get quick access.

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