



# T1039



Conspec's T1039 Multi-Function I/O Controller provides local device/systems monitoring and process controls to resolve the complexity of programming and excessive costs related to purchase, installation and maintenance of "off-the-shelf" PLCs in a mining environment.

Conspec's Multi-Function I/O Controllers can be either factory pre-programmed to serve customer specific requirements or controlled "on-the-fly" by either Conspec's Senturion SCADA software system or any standard SCADA software package, conditional and timed sequences.

- **Low cost versus off-the-shelf PLCs**
- **Easily Configurable to work with Conspec Senturion SCADA or any Industry Standard SCADA**
- **Industry Standard MODBUS protocol**
- **Easily Programmable for custom tasks**
- **Comes with Conspec CDI Windows Software for remote monitoring/configuration**
- **8 Digital Dry Contact Inputs**
- **8 Digital Open Collector Outputs**
- **1 Pulse Accumulator Frequency (0-1000Hz) Input**
- **1 Isolated Pulse Accumulator Event Counter Input**
- **Optional 6 Digit 7 Segment LED Display**
- **Low Power Consumption**
- **One Year Warranty**

### ***Ideal for where the cost and complexity of a PLC would be overkill.***

The T1039 Multi-Function Controller is ideal for use where the cost and complexity of an "off-the-shelf" or custom programmed PLC would be overkill, such as the monitoring and control of ventilation fans, louvers and pumps.

### ***Control "on-the-fly"***

Conspec's Multi-Function I/O Controllers are easily controlled on the fly using timed or conditional sequences from a mine wide SCADA system such as Conspec's Senturion SCADA for applications requiring inputs from other devices such as atmospheric monitors, water level meters and other Conspec Multi-Function I/O Controllers connected to remote fans and louvers facilitating optimized ventilation management in an underground mine.

### ***Factory Pre-programmed Sequences***

The T1039 Multi-Function I/O Controller can be factory pre-programmed to perform time sensitive functions such as conveyor monitoring, control and sequencing and pull-cord monitoring providing a low cost alternative to traditional PLCs.

### ***Increased Sensor Data Through Digital Communications***

The T1039 Multi-Function I/O Controller communicates with Mine Wide SCADA Systems such as the Conspec Senturion SCADA using digital communications (either MODBUS RTU/TCP-IP or Conspec Accessor Protocols). This ensures that signal noise between the T1039 Controller and the mining plant's control room is significantly reduced and allows for the retrieval of other important operating parameters such as operating temperature and voltage for improved performance analysis.

### ***Certified for use in Coal Mines***

Conspec's Multi-Function I/O Controllers are internationally certified for use in high methane environments when connected to a certified intrinsically safe power source.

# T1039 Specifications

## Mechanical

Enclosure	Carlton Rugged NEMA 4x/IP66 Non-Metallic Enclosure
Dimensions	11" x 8" x 5" / 28.0cm x 20.3cm x 12.7cm or 13.5" x 10" x 7" / 34.3cm x 25.4cm x 17.8cm
Weight	5 lbs / 2.27 kg
Mounting	Plate Mounted, Holes for Suspension
Conduit Entry	3 x 3/4" Cable Grips, Optional NEMA 4X/IP66 Quick Connect for Conspec Trunk or RS-485

## Electrical

Operating Voltage	8-30VDC (15VDC or 18VDC for Intrinsically Safe Operation)
Cable Requirements	4-Conductor 18 AWG Suggested, Conspec P1209 Trunk Cable Recommended
Cable Connection - Output	1 x RS-485 or Conspec Trunk Connection (Required for Intrinsically Safe Connections) Output 8 x Open Collector Digital Outputs (max 100mA @ 30VDC)
Inputs	8 x Dry Contact Digital Inputs (5V Wetting Voltage) 1 x Isolated Pulse Accumulator 0-1000Hz Frequency Input (12-24VDC @ 50mA) 1 x Isolated Pulse Accumulator Event Counter Input (12-24VDC @ 50mA)
Current Consumption	Without Attached Devices - 10mA Full Scale
Communication protocol	Conspec Accessor (Legacy or CN2), MODBUS RTU/TCP-IP

## Environmental

Operating Temperature	14°F to 120°F (-10°C to 50°C)
Operating Humidity	10% to 95% RH Non-Condensing

## System

Display	Optional 1 x T1010 6 Digit 7 Segment LED Display
Status LEDs	1 x 2 Color Status LED - Pulsing Green: Normal Pulsing Red: Configuration Error
Operating Modes	1 - Normal
Remote Configuration	Conspec CDI Windows Software (Included with Purchase), Conspec Senturion SCADA System Software.

# T1039

## Accessories

T1010	6 Digit 7 Segment LED Display
T1220R-XXXX-IS	Replacement Smart Head Plug In Sensor Assembly (Intrinsically Safe) (XXXX – Specify Gas and Range)
CDI	Conspec CDI Software
P1209	P1209 Conspec Trunk Cable
EE0261-SHJ	Smart Head Cable Splitter Box with NEMA 4x/IP66 Quick Connects
P1209SH-X	P1209 Smart Head Local Sensor Trunk Cable with NEMA 4x/IP66 Quick Connects (XX – Specify Length)

Conspec Controls Ltd.  
25 Klondike Drive  
Toronto, Ontario, Canada  
M9L 1S1

Phone: +1 (416) 661-0500 • Fax: +1 (416) 736-1684  
Toll Free (Can./US only): +1 (877) 526-6773  
sales@conspec.ca • www.conspec.ca

Conspec Controls Ltd.  
666 Burrard Street  
Vancouver, BC, Canada  
V6C 3P6

Phone: +1 (604) 642-6123 • Fax: +1 (604) 688-2419  
Toll Free (Can./US only): +1 (877) 526-6773  
sales@conspec.ca • www.conspec.ca

Conspec Controls Pty., Ltd.  
Suite 2, 1 Shaw Road  
Ingleburn, NSW 2565  
Australia

Phone: +61 (2) 9829-3633 • Fax: +61 (2) 9829-3488  
Toll Free (Can./US only): +1 (877) 526-6773  
sales@conspec.au • www.conspec.ca

© 2014 Conspec Controls Limited

The Conspec Logo is a trademark and service mark of Conspec Controls Limited. Conspec, Conspec Controls and Smart Head are registered trademarks of Conspec Controls Ltd. All other marks and logos are the property of their respective owners.

The contents of this publication are presented for information purposes only, and while effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.