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For Immediate Release

Multi-Channel Temperature Transmitter Delivers Low Cost Per Point Measurements

NORTH HILLS, CA—The [TCS Temperature Concentrator System](#) from [Moore Industries](#) substantially reduces the cost of transmitting multiple temperature sensor measurements by concentrating up to 32 signals onto a single twisted wire pair. The system provides a precision measurement at less than 25 percent the cost of using comparable stand-alone smart temperature transmitters.

The [TCS](#) accepts any combination of RTD, T/C, mV and resistance/potentiometer signal inputs, converts the inputs to the HART digital communications protocol, and transmits the data long distances from the field to the control room on an economical HART digital data link over a twisted wire pair. All process, status and diagnostic information can then be accessed by a HART-based control system.

“As we all know, manufacturing companies are continuously looking to reduce costs. To do this, some are moving away from stand-alone transmitters to lower cost per point temperature bricks,” says Tina Lockhart, Moore Industries’ Director of Engineering. “Saving real estate also equates to reduced overall costs. At less than 5 inches wide, each of our [TCS](#) modules will handle 16 measurements in a fraction of the space required by stand-alone transmitters.”

In addition to savings realized in instrument and space costs, the [TCS](#) uses HART--or MODBUS RTU with a converter module--for communication from the field to the control room. One twisted wire pair replaces expensive dedicated wires. The [TCS](#), being a loop-powered device, eliminates the need to send power wiring out to the field as well.

Using HART, maintenance personnel can access programming and status information for each [TCS](#) channel from the control room, or from any termination point using a standard HART hand-held communicator. There’s no need to send someone to remote sites.

“In developing the [TCS](#), our greatest challenge was to provide our customers with the cost savings they want, yet still maintain the full functionality and exceptional product performance they expect from a Moore Industries temperature transmitter,” Lockhart adds.

When used with the optional HMC HART-to- MODBUS Converter, the HMC transmits the HART data as a MODBUS RTU signal, which interfaces with any MODBUS RTU-based PC, PLC or control system.

Substantially Reduces Hardware, Wire, and Installation Costs. The [TCS](#) eliminates the need to install a dedicated transmitter and twisted wire pair (or expensive sensor extension wires) for each measurement.

Universal Input Options. The [TCS](#) can be set to accept RTD (2-, 3-, 4-wire; Pt, Cu, Ni); thermocouple (J, K, E, T, R, S, N, B, C); resistance/ potentiometer (0-4000 ohms); and millivolt (-50 to 1000mV) inputs. By using Moore Industries’ free Intelligent PC Configuration Software, custom input linearization can be defined for any input.

HART and MODBUS RTU Communications. These standard communication protocols allow easy interface to a wide range of DCS, PLC and computer-based networks.

Fault Alarms. The HMC can be programmed via the PC software to provide two relay outputs. The relays can be set to send a master alarm when the HMC detects one, any, or all of the following fault conditions within the system: No HART signal; broken wire; hardware error; bad configuration; input saturated; and input out of table range. The alarms can be set with a time delay, which specifies how long the alarm condition needs to exist before the alarm trips. Failsafe and Non-Failsafe alarm action is also configurable.

Versatile Programming. [TCS](#) operating parameters can be configured from any HART-based system or, using a standard HART hand-held, from anywhere along the twisted wire pair. The TCS can also be configured using Moore Industries' free Intelligent PC Configuration Software.

For more information, please visit Moore Industries Temperature Product Selection Index at http://miinet.com/products/sg_temperature.shtml. Contact Moore Industries-International, Inc. at 16650 Schoenborn St., North Hills, CA 91343, U.S.A; Telephone: (818) 894-7111; FAX: (818) 891-2816; E-mail: info@miinet.com; Web Site: www.miinet.com

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