

# SMART POT/I CONVERTERS 320 HART® COMPATIBLE OR PC CONNECTION

- **FULLY HART® COMPATIABLE**
- INPUT/OUTPUT ISOLATION 1500VAC
- **SENSOR DIAGNOSTICS**
- OPTIONAL PC SOFTWARE
- **PROGRAMMABLE LINEARIZATION**
- **EXCELLENT EMC PERFORMANCE**
- **DURABLE & SHOCKPROOF DESIGN**
- OPTIONAL INTRINSICALLY SAFE FOR Eex ia **TC T6 APPROVED**
- IMPROVED QA WITH DATA STORAGE
- CONTROLLED OUTPUT FOR REMOTE CALIBRATION











## **SPECIFICATIONS**

#### ■ GENERAL

**DETECTING PORTION:** Level detector/Potentiomete DISPLAY: 8x1 character LCD indicator For programming and display of input/output parameters and status

**INPUT SIGNAL:** 0 to  $0.5 K\Omega / 0$  to  $50 K\Omega r$ OUTPUT SIGNAL:  $4\sim$ 20mA DC, 2-wire system

OUTPUT RESOLUTION: 5 µ A

ZERO ADJUSTMENT: 0~100% unlimited

SPAN ADJUSTMENT:  $50\Omega$  min.

STABILITY: 0.1% / year ACCURACY: ± 0.1% F.S.

HOUSING MATERIAL: Aluminum alloy with epoxy coating

**HOUSING RATING: IP67** CABLE ENTRY: 1/2"NPT(F)

MOUNTING: G1/2" screws on sensor head **LOOP LOAD:**  $610\Omega$  at 24V and 23mA (Standard) 520 $\Omega$  at 24V and 23mA (EX-version)

LOAD INFLUENCE: Negligible for sensor wire resistance or

Loop load or power supply

RFI INFLUENCE:  $\pm$  0.2% of input span (0.15 $\sim$ 1000 MHz) **ELECTRICAL PROTECTION:** EMC performance and

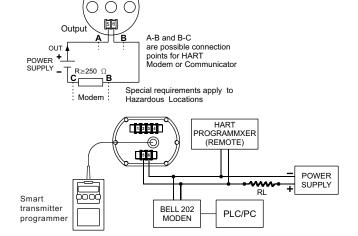
shockproof (Standard) CE/FM/EX Approved (Optional)

AMBIENT TEMPERATURE: -10~+85°C

OPTIONAL AUXILIARY: Hart modem or communicator 275

## WIRING CONNECTIONS

LEVEL SENSOR



## **■ SMART FUNCTIONS**

#### HART® compatible

True on-line communication with hand-held HART communicator 275

#### Sensor diagnostics

SmartSense detects low sensor isolation (essential for correct measurements). Selectable sensor break action.

#### Simplified loop check-up

The transmitter works as an accurate current generator.

#### On-screen indications of input and output

Valuable tools for temporary measurements.

#### Improved qa with data storage

Vital information, such as TAG-No., maintenance record etc. can be stored in the nonvolatile memory.

#### Customized linearization and engineering units

The accurate and versatile 50-point Customized linearization can be used to create almost any type of linearization curve for sensor input. By combining Customized linearization with the use of Engineering units, the transmitters can be programmed to give a linear output corresponding to a specific measuring range expressed in the primary process value.

#### Sensor break monitoring

Monitor sensor break and force the output signal to a user defined level, when any sensor lead is broken or disconnected. The sensor break monitoring can be switched off. The monitoring is furnished with a pulsed excitation current. This eliminates the voltage drop in the lead wires (giving a measuring error), caused by a standard DC excitation current.

#### Controlled output for instrument calibration

The smart transmitter can be set to automatically provide the recurring output values of 4, 12, 20, 12, 4 mA in a periodical scheme. Each level will last 15 seconds. The total time for controlled output is adjustable up to 30 minutes With the hand-held Hart Communicator model 275, a constant transmitter output can be set at any level between 4 and 20 mA.

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The specifications are subject to change without prior notice.

