

Output Driver 20-Pin VQFN EP T/R**Manufacturer:** [Texas Instruments, Inc](#)**Package/Case:** VQFN20**Product Type:** Amplifier ICs**RoHS:** RoHS Compliant/Lead free **Lifecycle:** Active

Images are for reference only

[Inquiry](#)**General Description**

The XTR300 is a complete output driver for industrial and process control applications. The output can be configured as current or voltage by the digital I/V select pin. No external shunt resistor is required. Only external gain-setting resistors and a loop compensation capacitor are required.

The separate driver and receiver channels provide flexibility. The Instrumentation Amplifier (IA) can be used for remote voltage sense or as a high-voltage, high-impedance measurement channel. In voltage output mode, a copy of the output current is provided, allowing calculation of load resistance.

The digital output selection capability, together with the error flags and monitor pins, make remote configuration and troubleshooting possible. Fault conditions on the output and on the IA input as well as over-temperature conditions are indicated by the error flags. The monitoring pins provide continuous feedback about load power or impedance. For additional protection, the maximum output current is limited and thermal protection is provided.

The XTR300 is specified over the 40°C to +85°C industrial temperature range and for supply voltages up to 40V.

Key Features

USER-SELECTABLE: Voltage or Current Output

+40V SUPPLY VOLTAGE

VOUT: $\pm 10V$ (up to $\pm 17.5V$ at $\pm 20V$ supply)

IOUT: $\pm 20mA$ (linear up to $\pm 24mA$)

SHORT- OR OPEN-CIRCUIT FAULT INDICATOR PIN

NO CURRENT SHUNT REQUIRED

OUTPUT DISABLE FOR SINGLE INPUT MODE

THERMAL PROTECTION

OVERCURRENT PROTECTION

SEPARATE DRIVER AND RECEIVER CHANNELS

DESIGNED FOR TESTABILITY

APPLICATIONS

PLC OUTPUT PROGRAMMABLE DRIVER

INDUSTRIAL CROSS-CONNECTORS

INDUSTRIAL HIGH-VOLTAGE I/O

3-WIRE-SENSOR CURRENT OR VOLTAGE OUTPUT

$\pm 10V$ 2- AND 4-WIRE VOLTAGE OUTPUT U.S. Patent Nos. 7,427,898, 7,425,848, and 7,449,873 Other Patents Pending

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Recommended For You

XTR305IRGWR

Texas Instruments, Inc

QFN20

XTR101AP

Texas Instruments, Inc

DIP

XTR110AG

Texas Instruments, Inc

DIP

XTR300AIRGWR

Texas Instruments, Inc

VQFN20

XTR117AIDRBT

Texas Instruments, Inc

VDFN-8

XTR105U

Texas Instruments, Inc

SOP14

XTR106P

Texas Instruments, Inc

DIP14

XTR110KP

Texas Instruments, Inc

DIP16

XTR106PA

Texas Instruments, Inc

DIP-14

XTR111AIDRCT

Texas Instruments, Inc
VSON10

XTR115UA

Texas Instruments, Inc
SOP8

XTR105P

Texas Instruments, Inc
DIP

XTR112UA

Texas Instruments, Inc
SOP14

XTR105UA

Texas Instruments, Inc
SOP14

XTR101AU

Texas Instruments, Inc
SOIC16