

# ADTECH 

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> 200 SERIES TWO-WIRE FIELD SELECTABLE
> WIDE RANGING TRANSMITTERS GUIDE
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## FEATURES

TYPES OF INPUTS: AC I/V (TRMS OR AVERAGE); FREQUENCY, MILLIVOLTS, POTENTIOMETER, RTD, DC I/V, T/C.

NO INTERACTION: ZERO AND SPAN CONTROLS
ELEVATION/SUPPRESSION: UP TO 100\% OF RANGE
POWER RANGE: 8 TO 42 VDC
RFI-RESISTANT
TEMPERATURE COEFFICIENTS:
ZERO $= \pm 0.007 \% /{ }^{\circ} \mathrm{C}$ OF SPAN- TYPICAL
SPAN $= \pm 0.008 \% /{ }^{\circ} \mathrm{C}$ OF SPAN- TYPICAL
REPEATABILITY: $\pm 0.002 \%$ TYPICAL
BANDWIDTH: (-3 DB) : 3.2 HZ TYPICAL
ISOLATION: 1000 VDC OR 600 VAC

POWER SUPPLY EFFECT: $\pm 0.005 \%$ OF SPAN

Response Time: 110 MILLISECONDS TYPICAL
Reverse Polarity Protection

## TYPICAL APPLICATIONS

MEASUREMENT OF :

TEMPERATURE
FLOW
SPEED
POSITION
DISPLACEMENT
ROTATION
AC CURRENT
AC VOLTAGE
DC SIGNALS

| AC INPUTACX 240 (ISOLATED) |  |  |  |  | FREQUENCY INPUT FDX 250 (ISOLATED) |  |  |  |  | MV INPUT <br> MVX 206 (NON-ISOLATED) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INPUT/OUTPUT |  |  |  |  | InPUT/OUTPUT |  |  |  |  | InPUT/OUTPUT |  |  |  |  |
| InPuT Signals <br> AC CURRENT: ANY $0-1$ TO $0-5$ amps AC, burden Less than 0.5 VA (Selectable average or true rms reSPONDING) <br> ac Voltage: any $0-0.25$ to $0-250 \mathrm{VAC}$, burden less than 0.5 VA (Selectable average or true rms responding) (4 major RANGES 0.25, 2.5, 25, 250) <br> ZRO ADJUSTM <br> COURSE SPAN ADJUSTMENT: $100 \%$ of a MAJOR RANGE (VOLtage ONLY) <br> FIne Span Adjustment: $\pm 5 \%$ Nominal of major range $\pm 1$ Amp For Current input) <br> Input frequency range: 25-1,000 Hz |  |  |  |  | INPUT SIGNALS <br> VOLTAGE (AMPLITUDE): $10 \mathrm{MV}-100$ Vrms (0-5 KHZ); 50 MV TO 50 VRMS ( 5 KHz TO 30 KHz ) <br> CONTACT: DRY, 2 MA @ 24 VAC RATING <br> Frequency Range: 0-30 HZ TO 0-30 KHZ full scale Major Range SWitch: Provides 11 Discrete ranges With THE ZERO CONTROL ADJUSTABLE $10 \%$ OF OUTPUT AND SPAN CONTROL ADJUSTABLE FROM $50 \%$ TO $100 \%$ OF THE MAJOR RANGE SELECTED RANGE SELECTED |  |  |  |  | Input Signals <br> 0.5 MV TO 100 MV Span (Z in Greater than 10 megohms) <br> Zero Suppression: Up to $100 \%$ of the major range selectED IN 16 divisions of the coarse zero adjustment switch Span: From 0.5 MV to 100 MV full scale switch selectable. The coarse span switch adds 16 divisions to each major Range. |  |  |  |  |
| I out <br> $\mathbf{V}$ supply <br> R(ohms) | 12 | 4.20 <br> 24 <br> 800 | 36 1400 | $\begin{gathered} \frac{42}{1700} \end{gathered}$ | I out <br> V supply <br> R(ohms) | 12 | 4.20 <br> 24 <br> 800 | 36 | $\frac{42}{\frac{4700}{170}}$ | I out <br> V supply <br> R(ohms) | 12 | $4-20$ <br> 24 <br> 800 | ${ }^{36} 1400$ | ${ }_{172} 170$ |
| PERFORMANCE |  |  |  |  | PERFORMANCE |  |  |  |  | PERFORMANCE |  |  |  |  |
| *CALIBRATED ACCURACY: $\pm 0.25 \%$ $\qquad$ $\pm 0.06 \%$ TYPICAL <br> Repeatability: $\pm 0.005 \%$ max... $\pm 0.002$ ZERO TC: $\pm 0.01 \%$ OF SPAN MAX $/{ }^{\circ} \mathrm{C}$ <br> AX., $\pm 0.002 \%$ TYP. <br> SPAN TC: CURRENT: $+0.02 \%$ OF SPAN MAX $/{ }^{\circ} \mathrm{C}$ <br> LOAD EFFECT: $\pm 0.005 \%$ ZERO TO FULL LOAD <br> OUTPUT RIPPLE: 10 MV P/P MAXIMUM <br> RESPONSE TIME: 350 MILLISECONDS ( 10 TO $90 \%$ STEP RESPONSE) <br> BANDWIDTH: ( -3 DB): <br> Temperature Range: <br> $-25^{\circ}$ To $185^{\circ} \mathrm{F}\left(-31^{\circ}\right.$ TO $85^{\circ} \mathrm{C}$ ) Operating; <br> $-40^{\circ}$ TO $200^{\circ} \mathrm{F}\left(-40^{\circ}\right.$ TO $\left.93^{\circ} \mathrm{C}\right)$ STORAGE <br> OWER SUN: INPUT/OUTPUT/CASE SPAN MAX <br> NOTE: All ACCURACIES ARE GIVEN AS A $\%$ Of 600 VAC <br> span. |  |  |  |  | * Calibrated Accuracy: $\pm 0.1 \%$ <br> $\pm 0.02 \%$ MAXIMUM, <br> Repeatability: $\pm 0.005 \%$ MAX., $\pm 0.002 \%$ TYP. <br> ZER TC: $\pm 0.01 \%$ OF SAN MAX ${ }^{\circ} \mathrm{C}$ SRAN TC: $+0.01 \%$ OF SPAN MAX $/{ }^{\circ} \mathrm{C}$ <br> LOAD EFFECT: $\pm 0.005 \%$ ZERO TO FULL LOAD <br> OUTPUT RIPPLE: 10 MV PRP MAXIMUM RESPONSE TIME: 350 MILISECONDS ( 10 TO $90 \%$ <br> BANDWIDTH: ( -3 DBP): 1 Hz <br> temperature range: <br> $25^{\circ}$ TO $185^{\circ} \mathrm{F}\left(-31^{\circ}\right.$ TO $85^{\circ} \mathrm{C}$ ) OPERATING; <br> $-40^{\circ}$ TO $200^{\circ} \mathrm{F}\left(-40^{\circ}\right.$ TO $93^{\circ} \mathrm{C}$ ) STORAGE POWER SUPIY EFFECT: $\pm 0.005 \%$ OF SPAN <br> ISOLATION: INPUT/OUTPUT/CASE: 1000VDC OR 600 <br> note: all accuracies are given as a \% of span. |  |  |  |  | * Calibrated accuracy: $\pm 0.1 \%$ CNDERENDENT LINEARTTY: $0.01 \%$ MAXIMUM REPEATABIITY + $+0.005 \%$ DIG ZERO TC: ZERO TC: $\pm 0.025+0.005$ <br> $\%$ OF SPAN MAX. ${ }^{\circ} \mathrm{C}$ <br> SpAN TC: $\pm 0.008 \%$ OF SPAN MAX $/{ }^{\circ} \mathrm{C}$ LOAD EFFECT: $\mathbf{~ 0 . 0 0 5 \% ~ Z E R O ~ T O ~ F U L L ~ L O A D ~}$ RESPONSE TIME: 110 MILLISECONDS ( 10 TO 90\% STEP RESPONSE) DB): 32 HZ TEmperature Range $25^{\circ}$ TO $185^{\circ} \mathrm{F}\left(-31^{\circ}\right.$ TO $85^{\circ} \mathrm{C}$ ) OPERATING; $-40^{\circ}$ TO $200^{\circ} \mathrm{F}\left(-40^{\circ}\right.$ TO $93^{\circ} \mathrm{C}$ ) STORAGE POWER SUPPLY EFFECT: $\pm 0.005 \%$ OF SPAN MAX. $\qquad$ |  |  |  |  |
| POWER |  |  |  |  | POWER |  |  |  |  | POWER |  |  |  |  |
| 8 To $42 \mathrm{VDC:}$ : STANDARD |  |  |  |  | 8 To 42 VDC: STANDARD |  |  |  |  | 8 To 42 VDC: STANDARD |  |  |  |  |
| MECHANICAL |  |  |  |  | MECHANICAL |  |  |  |  | MECHANICAL |  |  |  |  |
| electrical classification: General purpose CONNECTION: SCREW, COMPRESSION TYPE, ACCEPTS UP TO 14 AWG <br> Controls: One 16-POSITION rotary switch for coarse SPAN; TWO MULTITURN POTENTIOMETERS FOR FINE ZERO AND SPAN CONTROL. IUMPERS FOR MEASUREMENT RESPONSE TYPE TRMS OR AVERAGE AND FOR INPUT RANGES <br> MOUNTING: SURFACE, SNAP-TRACK, DIN rAILS, or <br> NEMA 4, OR 7 <br> WEIGHT: NET UNIT: 4 OZ. ( 115 GRAMS); SHIPPING: NOMINAL 7 OZ. (200 GRAMS) $\qquad$ |  |  |  |  | electrical Classification: general purpose AWG CONTROLS: ONE 16-POSITION ROTARY SWITCH FOR MAJOR RANGE; FOUR MULTITURN POTENTIOMETERS FOR ZERO, SPAN, HYSTERESIS AND SENSITIVITY. MOUNTING: SURFACE SNAP-TRA <br> NEMA 4 OR 7 <br> WEIGHT: NET NOMINAL 7 OZ. ( 200 GRAMS): <br> HIPPING: NOMINAL 7 OZ. (200 GRAMS) |  |  |  |  | electrical Classification: General purpose CONN CONTROLS: TWO 16-POSITION ROTARY SWITCHES FOR COARSE ZERO AND Span CONTROL; TWO MULTITURN POTENTIOMETERS FINE ZERO, AND SPAN CONTROL AND IUMPERS FOR MAJOR RANGE AND ZERO ELEVATION <br> MOUNTING: SURFACE, SNAP-TRACK, DIN RAILS, OR <br> NEMA 4, OR 7 <br> Weight: Net Unit: 4 OZ. (115 grams); <br> SHIPPING: NOMINAL 7 OZ (200 GRAMS) |  |  |  |  |
| OPTIONS |  |  |  |  | OPTIONS |  |  |  |  | OPTIONS |  |  |  |  |
|   <br> H 15 D, H 25- H 30 <br> LPI 40 D MOUNTING <br> LOOP POWERED <br> INDICATOR |  |  |  |  |   <br> H 15 D, H 25- H 30 <br> LPI 40 D MOUNTING <br> Loop PowERED <br> INDICATOR |  |  |  |  | $\begin{aligned} & \text { H H 15 D, H } 25-\mathrm{H} 30 \\ & \text { LPI 40 D } \end{aligned}$ |  | MOUNTING LOOP POWERED INDICATOR |  |  |




The ADTECH 200 SERIES TWO-WIRE TRANSMITTERS PROVIDE FIELD MOUNTED EFFICIENCY AND EASE OF WIRING IN A COMPACT DIN PACKAGE. THE UNITS CONVERT SENSOR INPUTS TO THE INDUSTRY STANDARD 4-20 MA DC TWO-WIRE LOOP OUTPUT FOR INTERFACE DIRECTLY WITH THE PLC'S, DCS'S AND PROCESS COMPUTERS.

MOST UNITS PROVIDE INDEPENDENT LINEARITY EQUIVALENT TO 14-BIT DIGITAL ACCURACY AND INCLUDE USER FRIENDLY FEATURES SUCH AS WIDE RANGING AND NON-INTERACTIVE ZERO AND SPAN CONTROLS.

The COmpact Din mounting style allows high density MOUNTING IN NEW OR EXISTING FIELD MOUNTED OR CONTROL PANEL ENCLOSURES.

STANDARD MOUNTING IS DIN RAIL. SURFACE OR SNAP TRACK MOUNTING IS PROVIDED AT NO CHARGE. NEMA 4 OR 7 ARE OPTIONALLY AVAILABLE.

THESE UNITS ARE DESIGNED FOR INDUSTRIAL ENVIRONMENTS. THE HOUSING IS MADE OF RUGGED KRILEN FOR PROTECTION AGAINST CORROSION, MOISTURE AND DUST.

SCREW COMPRESSION TERMINALS ARE PROVIDED FOR POSITIVE FIELD CONNECTIONS.

REVERSE POLARITY PROTECTION AND CURRENT LIMITING ARE SUPPLIED AS STANDARD.

THE POWER RANGE OF 8 TO 42 VDC PROVIDES VALUABLE ADDED DRIVE CAPABILITY.

THE INPUT CAN BE FACTORY SET TO ORDER AS SPECIFIED (NO CHARGE) OR RECONFIGURED IN THE FIELD BY SIMPLY ADJUSTING SWITCHES, MULTI-TURN POTENTIOMETERS, AND PLUG-IN JUMPERS.

INTEGRAL LCD FIELD INDICATOR (LPI 40D) IS OPTIONALLY AVAILABLE.

AC TO DC OR DC TO DC INSTRUMENT POWER SUPPLIES ARE AVAILABLE. THE IPS 2402 AC/DC POWERS UP TO 2 UNITS. THE IPS 2416 AC/DC OR DC/DC POWERS UP TO 16 UNITS. DIN, SURFACE, SNAP TACK OR NEMA MOUNTINGS ARE AVAILABLE.

## Connections



## Typical Connection



## Outline \& Mounting

## DIN Mount (Standard)



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$\equiv$
$\equiv$
Snap Track Option H 25

