



# ADTECH

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## 500 SERIES FIELD SELECTABLE ALARMS GUIDE

### Adtech 500 Series Field Selectable Alarms



#### FEATURES

- TYPES OF INPUTS: T/C, RTD, VDC/MADC, MVDC, AC VOLTS, AC AMPS
- SINGLE OR DUAL SET POINT MODELS
- CONTINUOUSLY ADJUSTABLE BLIND SET POINT POTENTIOMETERS
- UNIVERSAL RELAY ACTION- FAIL SAFE OR NON-FAIL SAFE, HIGH OR LOW ALARM
- LED INDICATION OF ALARM STATUS
- ADJUSTABLE TIME DELAY 0-30 SECONDS
- LATCHING ACTION

#### TYPICAL APPLICATIONS

##### CRITICAL ALARM POINT MONITORING OF:

- TEMPERATURE (T/C & RTD'S)
- DC SIGNALS
- AC CURRENT
- AC VOLTAGE
- FLOW
- SPECIALTY SENSORS

ACA 514/515 SINGLE AND DUAL AC VOLTAGE AND CURRENT ALARM	DCA 514/515 SINGLE AND DUAL DC VOLATGE AND CURRENT ALARM	MVA 514/515 SINGLE AND DUAL DC MILLIVOLT ALARM
INPUT/OUTPUT	INPUT/OUTPUT	INPUT/OUTPUT
<b>INPUT SIGNALS</b> AC CURRENT: ANY 0-1 TO 0-5 AMPS AC, BURDEN LESS THAN 0.5 VA (SELECTABLE AVERAGE OR TRUE RMS) AC VOLTAGE: ANY 0-0.25 TO 0-250 VAC, SELECTABLE RANGES OF 0.25, 2.5, 25 AND 250 VAC TRIP ADJUSTMENT: 0-100% OF SPAN DEAD BAND ADJUSTMENT: 1-100% OF SPAN ADJUSTABLE TIME DELAY: 0-30 SECONDS LED ON DURING ALARM CONDITION <b>OUTPUT SIGNAL:</b> SPDT CONTACT RATED AT 10AMPS, 30VDC OR 250VAC, RESISTIVE LOAD MODEL 514 - SINGLE SETPOINT/RELAY; MODEL 515 DUAL SETPOINT/RELAY RELAY ACTION - JUMPER CONFIGURABLE, FAIL SAFE OR NON FAIL SAFE. HIGH OR LOW ALARM	<b>INPUT SIGNALS</b> 4-20 MADC (Z = 10 OHMS) 0-20 OR ±20 MADC (Z = 10 OHMS) 0-10 OR ±10 MADC (Z = 20 OHMS) 0-1 OR ± 1 MADC (Z = 200 OHMS) 1-5 VDC, 0-5 OR ±5 VDC, 0-10 OR ±10 VDC TRIP ADJUSTMENT: 0-100% OF SPAN DEAD BAND ADJUSTMENT: 1-100% OF SPAN ADJUSTABLE TIME DELAY: 0-30 SECONDS LED ON DURING ALARM CONDITION <b>OUTPUT SIGNAL:</b> SPDT CONTACT RATED AT 10AMPS, 30VDC OR 250VAC, RESISTIVE LOAD MODEL 514 - SINGLE SETPOINT/RELAY; MODEL 515 DUAL SETPOINT/RELAY RELAY ACTION - JUMPER CONFIGURABLE, FAIL SAFE OR NON FAIL SAFE. HIGH OR LOW ALARM	<b>INPUT SIGNALS</b> UP TO 100 MVDC INPUT SPANS TRIP ADJUSTMENT: 0-100% OF SPAN DEAD BAND ADJUSTMENT: 1-100% OF SPAN ADJUSTABLE TIME DELAY: 0-30 SECONDS LED ON DURING ALARM CONDITION <b>OUTPUT SIGNAL:</b> SPDT CONTACT RATED AT 10AMPS, 30VDC OR 250VAC, RESISTIVE LOAD MODEL 514 - SINGLE SETPOINT/RELAY; MODEL 515 DUAL SETPOINT/RELAY RELAY ACTION - JUMPER CONFIGURABLE, FAIL SAFE OR NON FAIL SAFE. HIGH OR LOW ALARM
PERFORMANCE	PERFORMANCE	PERFORMANCE
ACCURACY: ±0.25% OF SPAN REPEATABILITY: ±0.1% OF SPAN STABILITY: TRIP POINT STABILITY ± 0.007%/°C TYPICAL, ±0.018%/°C MAXIMUM FOR A ± 25°C CHANGE FROM AMBIENT SET POINT ADJUSTMENT: TRIP POINT ADJUSTABLE 0-100% OF SPAN, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION DEADBAND: ADJUSTABLE 0-100% OF SPAN, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION TIME DELAY: ADJUSTABLE 0-30 SECONDS, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION RESPONSE TIME: < 200 MSEC TEMPERATURE RANGE: -15°C TO +60°C (+5°F TO +140°F) OPERATING -40°C/F TO +85°C (+185°F) STORAGE ISOLATION: INPUT TO OUTPUT TO POWER ≥ 1500 VAC 50/60 HZ, 2100 VDC HIPOT POWER SUPPLY EFFECT: ± 0.05% FOR A ±10% POWER SUPPLY VARIATION NOTE: ALL SPECS ARE STATED AS A PERCENT OF SPAN, AMBIENT TEMPERATURE IS 23°C	ACCURACY ±0.1% OF SPAN REPEATABILITY: ± 0.1% OF SPAN STABILITY: TRIP POINT STABILITY ± 0.007%/°C TYPICAL, ±0.018%/°C MAXIMUM FOR A ± 25°C CHANGE FROM AMBIENT SET POINT ADJUSTMENT: TRIP POINT ADJUSTABLE 0-100% OF SPAN, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION DEADBAND: ADJUSTABLE 0-100% OF SPAN, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION TIME DELAY: ADJUSTABLE 0-30 SECONDS, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION RESPONSE TIME: < 200 MSEC TEMPERATURE RANGE: -15°C TO +60°C (+5°F TO +140°F) OPERATING -40°C/F TO +85°C (+185°F) STORAGE ISOLATION: INPUT TO OUTPUT TO POWER ≥ 1500 VAC 50/60 HZ, 2100 VDC HIPOT POWER SUPPLY EFFECT: ± 0.05% FOR A ±10% POWER SUPPLY VARIATION NOTE: ALL SPECS ARE STATED AS A PERCENT OF SPAN, AMBIENT TEMPERATURE IS 23°C	ACCURACY ±0.1% OF SPAN REPEATABILITY: ± 0.1% OF SPAN STABILITY: TRIP POINT STABILITY ± 0.007%/°C TYPICAL, ±0.018%/°C MAXIMUM FOR A ± 25°C CHANGE FROM AMBIENT SET POINT ADJUSTMENT: TRIP POINT ADJUSTABLE 0-100% OF SPAN, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION DEADBAND: ADJUSTABLE 0-100% OF SPAN, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION TIME DELAY: ADJUSTABLE 0-30 SECONDS, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION RESPONSE TIME: < 200 MSEC TEMPERATURE RANGE: -15°C TO +60°C (+5°F TO +140°F) OPERATING -40°C/F TO +85°C (+185°F) STORAGE ISOLATION: INPUT TO OUTPUT TO POWER ≥ 1500 VAC 50/60 HZ, 2100 VDC HIPOT POWER SUPPLY EFFECT: ± 0.05% FOR A ±10% POWER SUPPLY VARIATION NOTE: ALL SPECS ARE STATED AS A PERCENT OF SPAN, AMBIENT TEMPERATURE IS 23°C
POWER	POWER	POWER
100-240 VAC, 0.7PF STANDARD, P2 OPTIONAL 24 VDC POWER AVAILABLE	100-240 VAC, 0.7PF STANDARD, P2 OPTIONAL 24 VDC POWER AVAILABLE	100-240 VAC, 0.7PF STANDARD, P2 OPTIONAL 24 VDC POWER AVAILABLE
MECHANICAL	MECHANICAL	MECHANICAL
ELECTRICAL CLASSIFICATION: GENERAL PURPOSE CONNECTION: SCREW COMPRESSION TYPE, ACCEPTS UP TO 14AWG CONTROLS: INDIVIDUAL SETPOINT POTENTIOMETERS, DEADBAND AND TIME DELAY CONTROLS MOUNTING: DIN RAIL STANDARD, SURFACE MOUNT OPTIONAL, OPTION H26, NEMA 4 AND 7 ALSO AVAILABLE. WEIGHT: 9.0 OZ, 250 GRAMS	ELECTRICAL CLASSIFICATION: GENERAL PURPOSE CONNECTION: SCREW COMPRESSION TYPE, ACCEPTS UP TO 14AWG CONTROLS: INDIVIDUAL SETPOINT POTENTIOMETERS, DEADBAND AND TIME DELAY CONTROLS MOUNTING: DIN RAIL STANDARD, SURFACE MOUNT OPTIONAL, OPTION H26, NEMA 4 AND 7 ALSO AVAILABLE. WEIGHT: 9.0 OZ, 250 GRAMS	ELECTRICAL CLASSIFICATION: GENERAL PURPOSE CONNECTION: SCREW COMPRESSION TYPE, ACCEPTS UP TO 14AWG CONTROLS: INDIVIDUAL SETPOINT POTENTIOMETERS, DEADBAND AND TIME DELAY CONTROLS MOUNTING: DIN RAIL STANDARD, SURFACE MOUNT OPTIONAL, OPTION H26, NEMA 4 AND 7 ALSO AVAILABLE. WEIGHT: 9.0 OZ, 250 GRAMS
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H15D5    EXPLOSION PROOF HOUSING CLASS 1, GROUP B,C & D H23        TWO INCH PIPE MOUNT KIT WITH CLAMPS H27        NEMA 4 ENCLOSURE H29        T35 DIN T RAIL 2 FT LONG H30        T32 DIN G RAIL 2 FT LONG	H15D5    EXPLOSION PROOF HOUSING CLASS 1, GROUP B,C & D H23        TWO INCH PIPE MOUNT KIT WITH CLAMPS H27        NEMA 4 ENCLOSURE H29        T35 DIN T RAIL 2 FT LONG H30        T32 DIN G RAIL 2 FT LONG	H15D5    EXPLOSION PROOF HOUSING CLASS 1, GROUP B,C & D H23        TWO INCH PIPE MOUNT KIT WITH CLAMPS H27        NEMA 4 ENCLOSURE H29        T35 DIN T RAIL 2 FT LONG H30        T32 DIN G RAIL 2 FT LONG

<p style="text-align: center;"><b>RBA 514/515</b> <b>SINGLE AND DUAL DC</b> <b>RTD AND RESISTANCE ALARM</b></p>	<p style="text-align: center;"><b>TCA 514/515</b> <b>SINGLE AND DUAL DC</b> <b>VOLTAGE AND CURRENT</b> <b>ALARM</b></p>
<p style="text-align: center;"><b>INPUT/OUTPUT</b></p>	<p style="text-align: center;"><b>INPUT/OUTPUT</b></p>
<p><b>INPUT SIGNALS</b> RTD TYPES: 2,3 AND 4 WIRE RTD'S RANGE 1 TO 400 OHMS RESISTANCE TRIP ADJUSTMENT: 0-100% OF SPAN DEAD BAND ADJUSTMENT: 1-100% OF SPAN ADJUSTABLE TIME DELAY: 0-30 SECONDS LED ON DURING ALARM CONDITION <b>OUTPUT SIGNAL:</b> SPDT CONTACT RATED AT 10AMPS, 30VDC OR 250VAC, RESISTIVE LOAD MODEL 514 - SINGLE SETPOINT/RELAY; MODEL 515 DUAL SETPOINT/RELAY RELAY ACTION - JUMPER CONFIGURABLE, FAIL SAFE OR NON FAIL SAFE. HIGH OR LOW ALARM</p>	<p><b>INPUT SIGNALS</b> T/C TYPES: J, K, T, E, R, S, B RANGE: -20 TO 100 MVDC TRIP ADJUSTMENT: 0-100% OF SPAN DEAD BAND ADJUSTMENT: 1-100% OF SPAN ADJUSTABLE TIME DELAY: 0-30 SECONDS LED ON DURING ALARM CONDITION <b>OUTPUT SIGNAL:</b> SPDT CONTACT RATED AT 10AMPS, 30VDC OR 250VAC, RESISTIVE LOAD MODEL 514 - SINGLE SETPOINT/RELAY; MODEL 515 DUAL SETPOINT/RELAY RELAY ACTION - JUMPER CONFIGURABLE, FAIL SAFE OR NON FAIL SAFE. HIGH OR LOW ALARM</p>
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<p>ACCURACY <math>\pm 0.1\%</math> OF SPAN REPEATABILITY: <math>\pm 0.1\%</math> OF SPAN STABILITY: TRIP POINT STABILITY <math>\pm 0.007\%/^{\circ}\text{C}</math> TYPICAL, <math>\pm 0.018\%/^{\circ}\text{C}</math> MAXIMUM FOR A <math>\pm 25^{\circ}\text{C}</math> CHANGE FROM AMBIENT SET POINT ADJUSTMENT: TRIP POINT ADJUSTABLE 0-100% OF SPAN, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION DEADBAND: ADJUSTABLE 0-100% OF SPAN, CONTINU- OUS BLIND ADJUSTMENT, INFINITE RESOLUTION TIME DELAY: ADJUSTABLE 0-30 SECONDS, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION RESPONSE TIME: &lt; 200 MSEC TEMPERATURE RANGE: <math>-15^{\circ}\text{C}</math> TO <math>+60^{\circ}\text{C}</math> (<math>+5^{\circ}\text{F}</math> TO <math>+140^{\circ}\text{F}</math>) OPERATING <span style="float: right;"><math>-40^{\circ}\text{C}/\text{F}</math> TO <math>+85^{\circ}\text{C}</math></span> (<math>+185^{\circ}\text{F}</math>) STORAGE ISOLATION: INPUT TO OUTPUT TO POWER <math>\geq 1500</math> VAC 50/60 HZ, 2100 VDC HIPOT POWER SUPPLY EFFECT: <math>\pm 0.05\%</math> FOR A <math>\pm 10\%</math> POWER SUPPLY VARIATION NOTE: ALL SPECS ARE STATED AS A PERCENT OF SPAN, AMBIENT TEMPERATURE IS <math>23^{\circ}\text{C}</math></p>	<p>ACCURACY <math>\pm 0.1\%</math> OF SPAN OF THE MVDC INPUT REPEATABILITY: <math>\pm 0.1\%</math> OF SPAN STABILITY: TRIP POINT STABILITY <math>\pm 0.007\%/^{\circ}\text{C}</math> TYPICAL, <math>\pm 0.018\%/^{\circ}\text{C}</math> MAXIMUM FOR A <math>\pm 25^{\circ}\text{C}</math> CHANGE FROM AMBIENT SET POINT ADJUSTMENT: TRIP POINT ADJUSTABLE 0-100% OF SPAN, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION DEADBAND: ADJUSTABLE 0-100% OF SPAN, CONTINU- OUS BLIND ADJUSTMENT, INFINITE RESOLUTION TIME DELAY: ADJUSTABLE 0-30 SECONDS, CONTINUOUS BLIND ADJUSTMENT, INFINITE RESOLUTION RESPONSE TIME: &lt; 200 MSEC TEMPERATURE RANGE: <math>-15^{\circ}\text{C}</math> TO <math>+60^{\circ}\text{C}</math> (<math>+5^{\circ}\text{F}</math> TO <math>+140^{\circ}\text{F}</math>) OPERATING <span style="float: right;"><math>-40^{\circ}\text{C}/\text{F}</math> TO <math>+85^{\circ}\text{C}</math></span> (<math>+185^{\circ}\text{F}</math>) STORAGE ISOLATION: INPUT TO OUTPUT TO POWER <math>\geq 1500</math> VAC 50/60 HZ, 2100 VDC HIPOT POWER SUPPLY EFFECT: <math>\pm 0.05\%</math> FOR A <math>\pm 10\%</math> POWER SUPPLY VARIATION NOTE: ALL SPECS ARE STATED AS A PERCENT OF SPAN, AMBIENT TEMPERATURE IS <math>23^{\circ}\text{C}</math></p>
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THE ADTECH 500 SERIES ALARM MODULES PROVIDE A FULL FEATURED ALARM MODULE IN A COMPACT, EASY TO WIRE, DIN CASE. ALL MODULES COME WITH ONE OR TWO FULLY ADJUSTABLE SETPOINTS. OTHER STANDARD FEATURES INCLUDE ADJUSTABLE DEADBAND, ADJUSTABLE TIME DELAY, LATCHING ACTION AND LED INDICATION OF ALARM STATUS. ALARMS CAN BE CONFIGURED FOR BOTH FAIL SAFE AND NON-FAIL SAFE CONDITIONS.

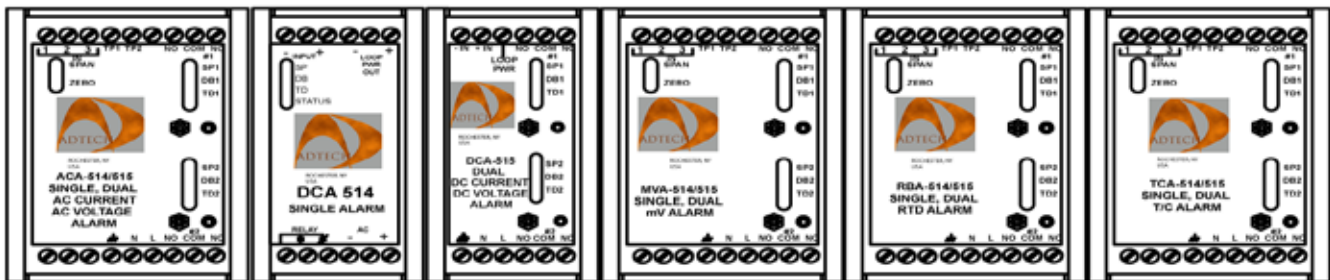
AVAILABLE ALARM MODULES CAN ACCEPT INPUTS FROM AC VOLTAGE, AC CURRENT, DC VOLTAGE, DC CURRENT, MILLIVOLT, RTD AND THERMOCOUPLE SOURCES. STANDARD POWER SUPPLY IS OUR UNIVERSAL AC INPUT SUPPLY THAT CAN ACCEPT AC POWER INPUTS FROM 100-240 VAC. A 24VDC OPTIONAL POWER IS ALSO AVAILABLE.

UNITS ARE ISOLATED INPUT TO OUTPUT TO POWER. STANDARD UNITS ARE BUILT TO A WORK IN MOST INDUSTRIAL ENVIRONMENTS. FOR UNUSUALLY HARSH ELECTRICAL AREAS, MODULES CAN BE ORDERED WITH ADDITIONAL TRANSIENT AND NOISE IMMUNITY CIRCUITRY.

THE STANDARD HOUSING IS MADE OF CORROSION RESISTANT KRILEN PLASTIC AND IS DESIGNED FOR DIN RAIL MOUNTING. UNITS CAN ALSO BE ORDERED IN NEMA 4 OR NEMA 7 ENCLOSURES. ELECTRICAL CONNECTION IS BY A VERY RELIABLE SCREW COMPRESSION TERMINAL.

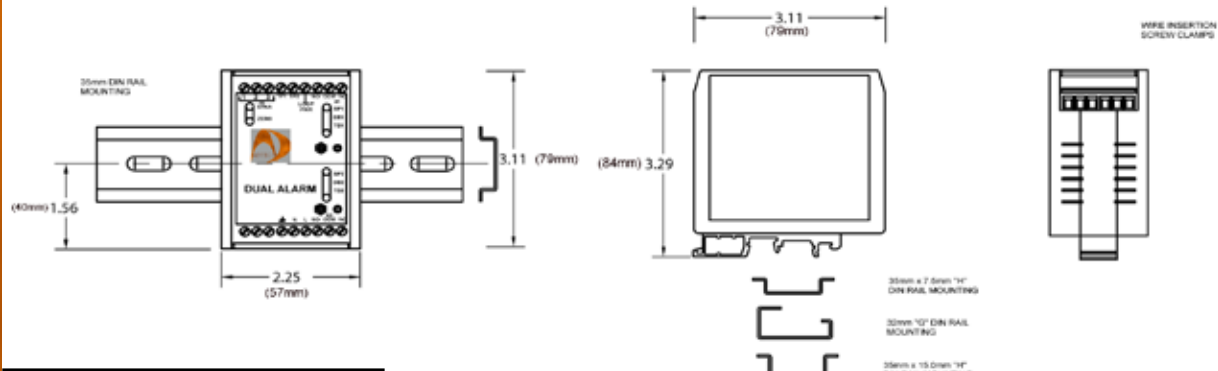
## Connections

<u>ACA</u>	<u>RBA</u>		<u>TCA/MVA/DCA</u>
1- COM	1 - +		1- - INPUT
2- VIN	2 - -		2- +INPUT
3- I IN	3-REF		3-NOT USED

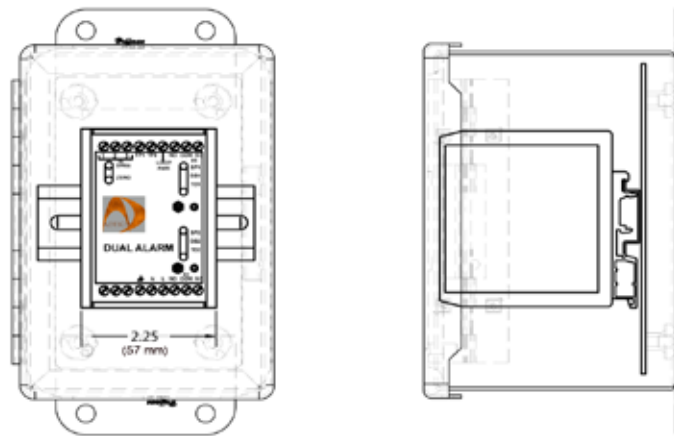


# Outline and Mounting

## DIN Mount



## NEMA 4



## NEMA 7

