

# Model C801 “Tuff Tilt 420” Tiltmeter

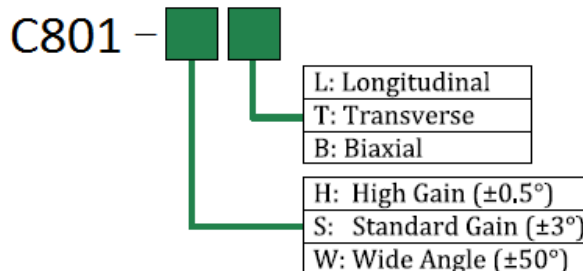
The model C801 “Tuff Tilt 420” delivers the same precision and durability of our A801, but with 4-20mA output. Units are available in single axis (uniaxial), and dual axis (biaxial) tilt configurations. The Tuff Tilt 420 is current loop powered, so tilt measurements are made using an economical 2-wire pair, and because output is 4-20mA there is no signal loss over long cables. Units also include an on-board thermistor for temperature measurements. All units are rated IP65 waterproof for advanced protection from the elements. Use the C801 for structural monitoring, 4-20mA PLC systems, industrial measurement and control, or anywhere long cable runs are necessary.



	High-Gain	Standard	Wide-Angle
Angular Range	±0.5°	±3.0°	±50°
Resolution	<0.0001°	0.0006°	0.01°
Repeatability	<0.0002°	0.001°	0.02°
Non-Linearity	1%	2%	0.5%
Scale Factor	0.0625°/mA	0.375°/mA	6.25°/mA
Kz Temp Coefficient (deg/C)	±0.0002°/°C (typical)		±0.002°/°C (typical)
Ks Temp Coefficient (%/°C)	<0.04%/°C (typical)		<0.1%/°C (typical)
Time Constant	0.15 sec		
Output	4-20mA Two-wire current loop (per axis)		
Channels	Tilt, Temperature		
Load Impedance	270 ohms		
Temperature Output	0.1°C/mV typical (single ended; 0°C = 0mV)		
Power	(0.02 Ampere x R + 10 VDC) < Vs < 29 VDC		
Environmental	-40 to +85°C operation and storage. IP65		
Dimensions	120 x 80 x 60 mm, 0.5 kg (1.1 lb.)		
Materials	Diecast painted aluminum,		
Cable	3m (10 ft.), 5-conductor + one overall shield, PVC jacket, tinned ends		

*Specifications subject to change without notice on account of continued product development*

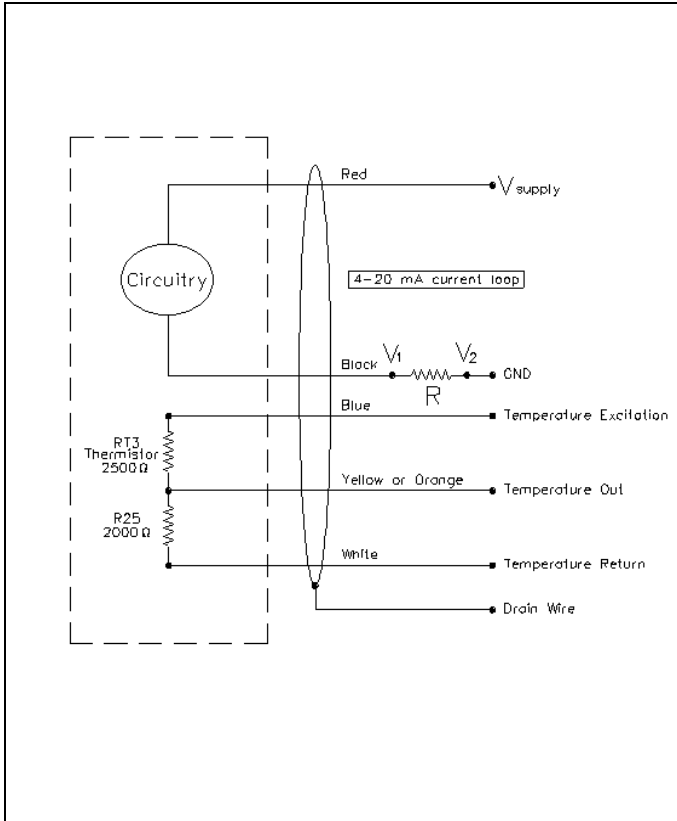
## Ordering Code:



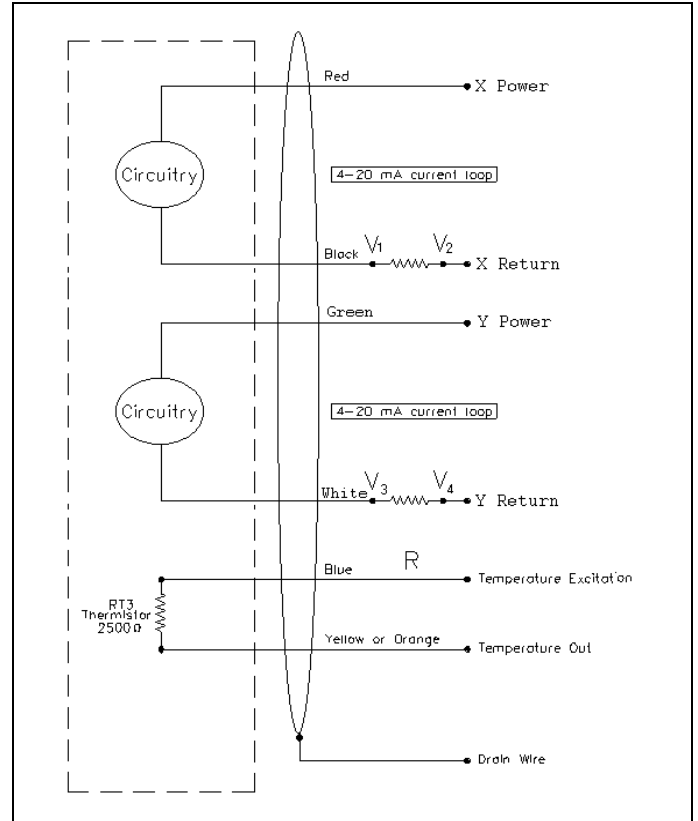
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## Circuit Diagram:

Model C801 (Uniaxial Versions)



Model C801 (Biaxial Versions)

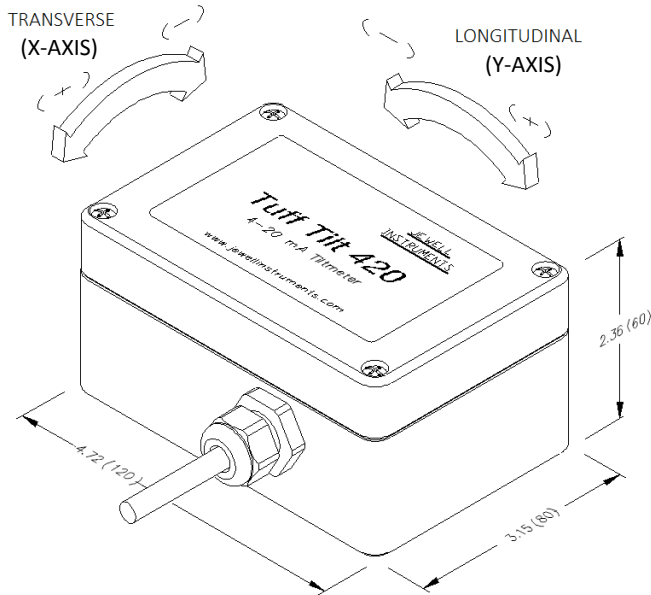


## Wiring Diagram:

Function	Wire Color (Uniaxial Versions)	Wire Color (Biaxial Versions)
Loop Power (V+)	Red	Red (X), Green (Y)
Loop Return (GND)	Black	Black (X), White (Y)
Temp. Excitation	Blue	Blue
Temp. Out	Yellow	Yellow
Temp. Return	White	Not Connected
Drain	Bare (Clear)	Bare (Clear)

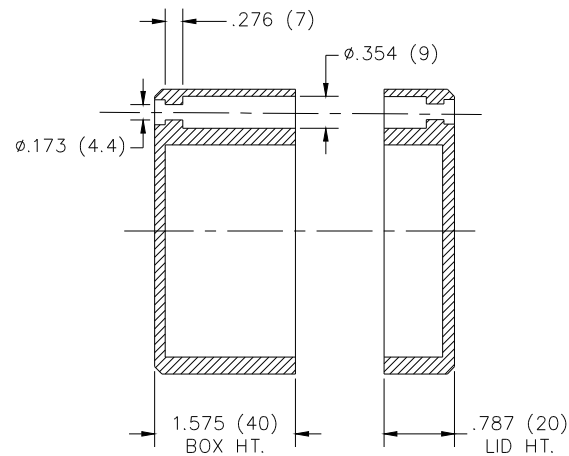
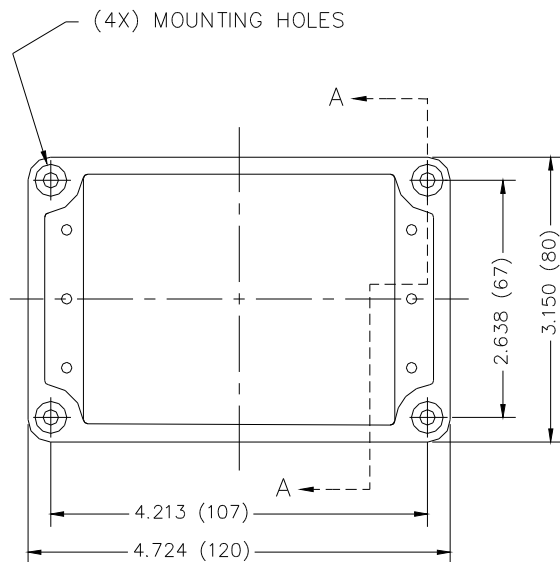
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## Dimensions:



## Accessories

Model	Part Number	Description
84051	84051-01	Horizontal Mounting Plate Kit w/Mounting Hardware (See plate dimensions)
81439	81439-01	Vertical Mounting Plate Kit w/Mounting Hardware (see plate dimensions)
602-00013	602-00013	Extra Mounting Kit (Includes Allen Wrench, four (4) Mounting Studs and Circular Bubble Level)
62204	62204	Optional 6-pin male receptacle (installed on tiltmeter cable)
62202	62101011-001	Optional 6-socket in-line plug (mates to P/N 62204 connector)
70304	70304	Power/signal 10-conductor Cable, 24 AWG, Polypropylene Jacket (Specify total length on order)



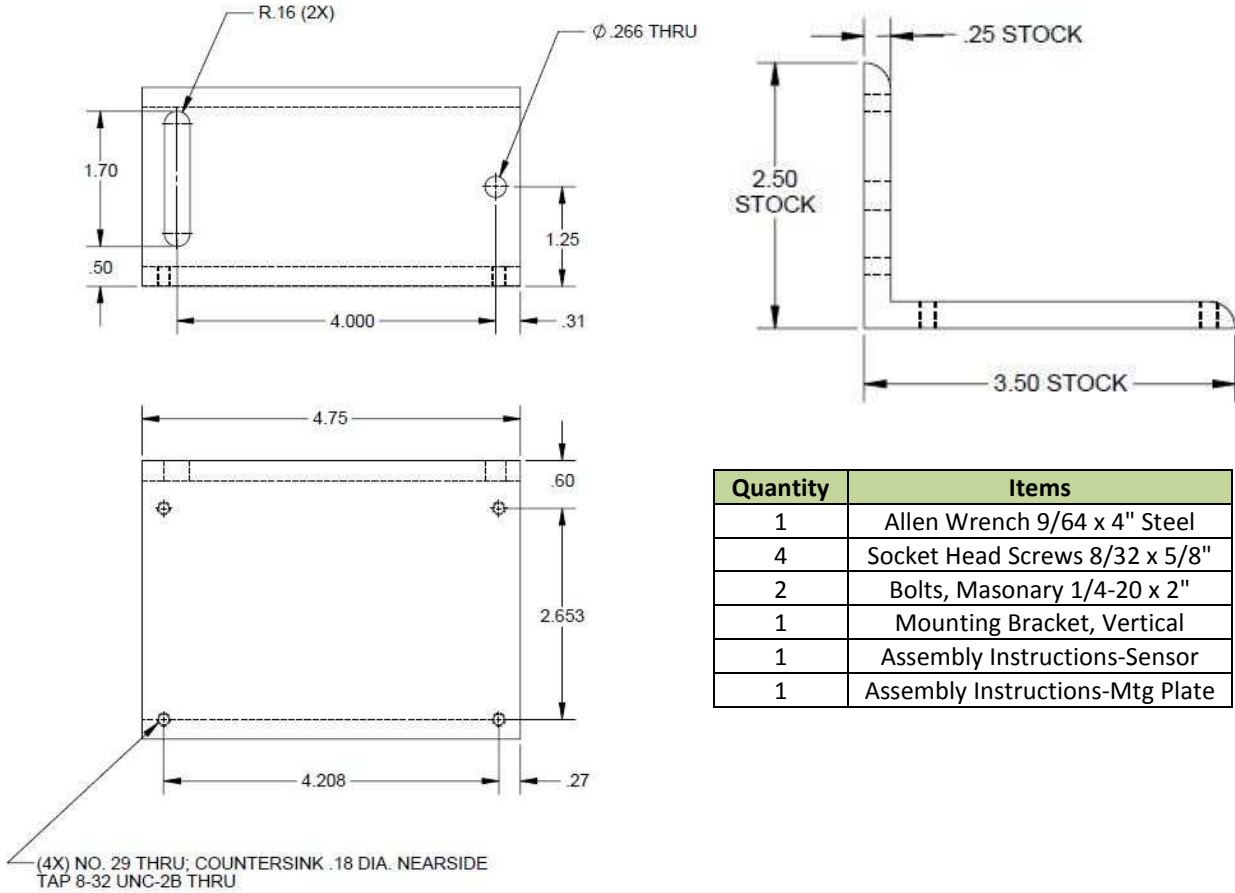
Dimensions in inches (mm)

## Extra Mounting Kit, Tuff Tilt, Part Number 602-00013

Quantity	Items	Item Description
1	Allen Wrench	9/64" x 4", Alloy steel
1	Circular Bubble Level	Acrylic Circular Bubble Level
4	Stud Mounting Assys	2-Hex Nuts, 3-Flat Washers, 1-Socket Head Screw, & 1-Locknut
1	Assembly Instructions	Assembly Mounting Instructions

# Model C801 "Tuff Tilt 420" Tiltmeter

## Right Angle Mounting Bracket Diagram - Model: 81439, Part Number: 81439-01



## Horizontal Mounting Plate Diagram - Model: 84051, Part Number 84051-01

