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Find the *Vincent / UniBlitz VS14S20-100* at our website: *Click HERE*

Uniblitz® VS14

14mm Uni-Stable Optical Shutter



Overview

The Uniblitz VS14 has been designed to provide accurate, repeatable exposures for a wide variety of applications. The VS series shutters have been successfully field tested in microscopy, video imaging, PMT protection, and photographic applications worldwide. The VS14 is available in a housed or un-housed configuration for OEM applications (or simply where spatial limitations are a consideration). Uni-stable shutter devices, like the VS14, require power to hold the blades in the open state (though the device can be custom-configured for "normally open" operation).

Key Features

- 14mm aperture
- Uni-stable operation
- Slim, small form-factor
- **RoHS Compliant**
- Transfer time on opening:

  1.5 milliseconds
- Total opening time:

  3.5 milliseconds
- Configured for the **VCM-D1 Shutter Driver**

Need Support? Please **visit our website** or email us at **info@uniblitz.com.**

Tel: 585-385-5930 | Toll-Free: 800-828-6972 | Fax: 585-385-6004 | 803 Linden Ave. Rochester, NY 14625

Updated 12/16 | Datasheet Version 5.1 | ©2016 Vincent Associates

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Product Options

VS14 ❷ ❸ ❹ ❺ ❻ - ❼ - ❽ Ex: VS14S2ZM0-EC-21

❶ Shutter Series:
- **VS14**

❷ Driver Compatibility:
- **S:** Use with VCM-D1 (Std.)
- **E:** Use with D880C or VED24

❸ Housing:
- **1:** Un-Housed
- **2:** #2 Housing

❹ Blade Coating: [1]
- **T:** Low Energy (Teflon®)
- **ZM:** High Energy (AlMgF2) [2]

❺ Electronic Sync:
- **0:** Omitted
- **1:** Included

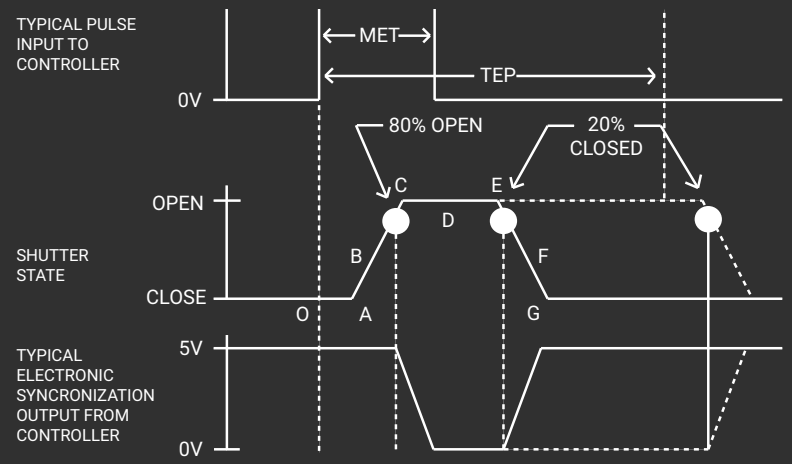
❻ Connector:
- **L:** 18" flying leads *(Un-housed only)*
- Leave blank for 7-pin Wire Pro connector

❼ Encapsulated Coil:
- **EC:** Included
- Leave blank if not required

❽ Mount: *(#2 housing only)*
- **21:** Zeiss Axiovert
- **24:** Olympus BX/IX
- **27:** Nikon
- **105:** C-Mount (Male)
- **106:** C-Mount (Female)
- Leave blank if not required

[1] *Other blade coating options may be available by special order.*
[2] *Input side only; Teflon® coating is on opposite side to protect shutter blade surface. Light source must be input to the reflective side only.*

Shutter Timing



VS14 (w/ VCM-D1 driver and Teflon® coated blades)		Time (msec.)
O - A	Delay time on opening after current applied	2.0
A - C	Transfer time on opening	1.5
O - C	Total opening time	3.5
C - E	Min. dwell time with min. input pulse	2.0
B - F	Min. equivalent exp. time	4.5
E - G	Transfer time on closing	3.0
A - G	Total window time	6.5
MET	Min. exposure time	4.0
TEP	Typical exposure pulse	>6.5

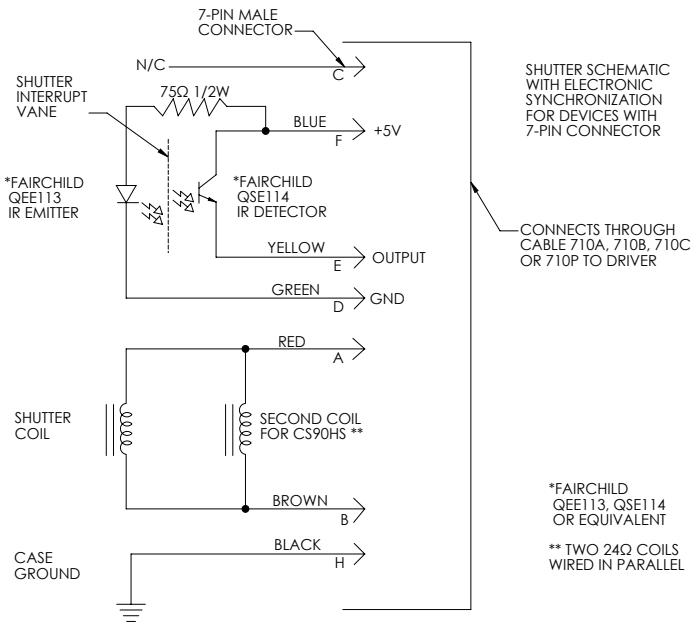
Technical Specifications

Coil Resistance	Voltage to Open	Hold Voltage (Nominal) [1]
12 Ω	+65 VDC	+5 VDC

[1] *Voltage level required across actuator coil when being held in the open position.*

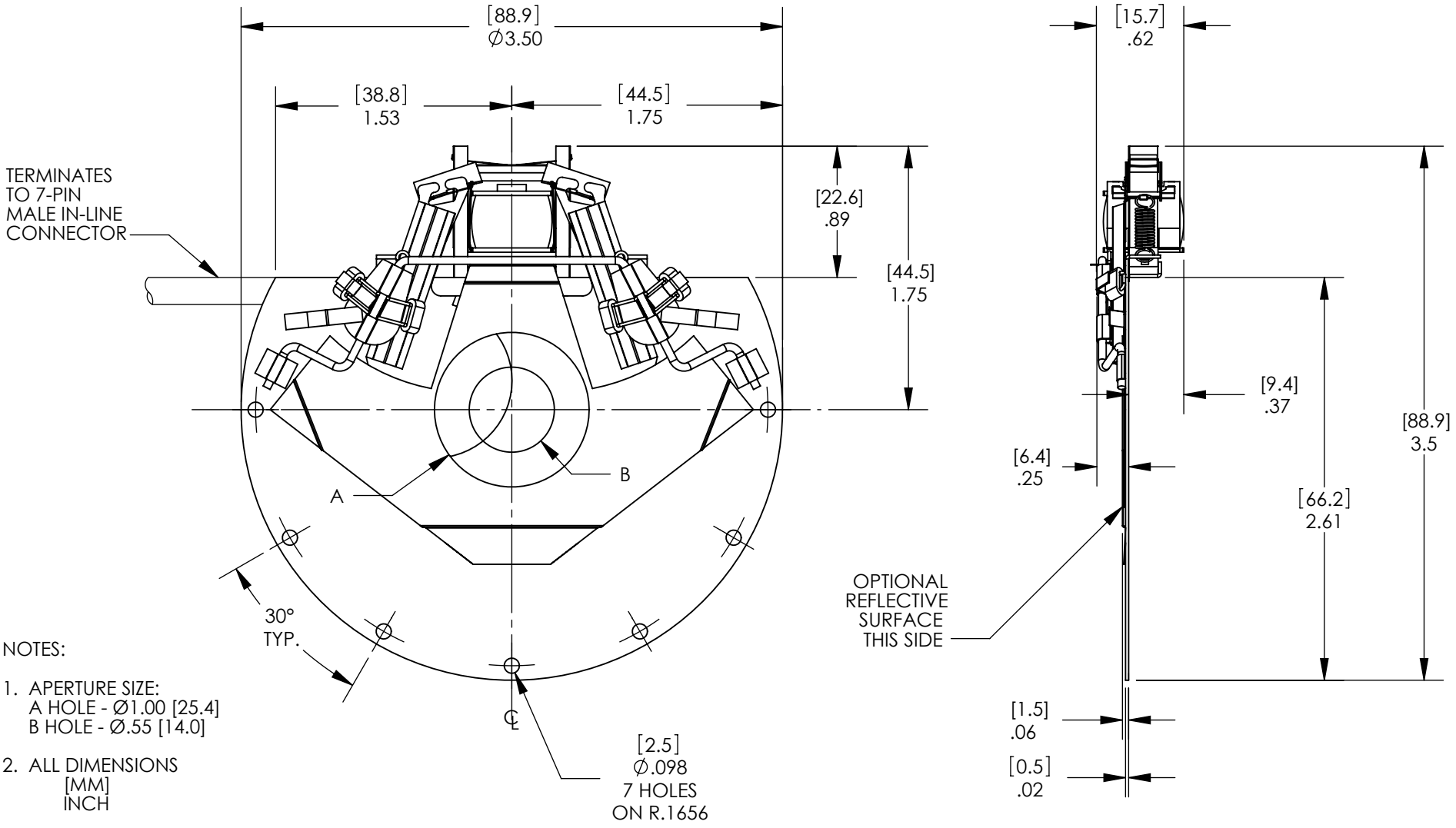
[2] *(Continuous/Burst) Continuous frequency rating specified at shutter's minimum exposure pulse. Burst frequency rating specified for four (4) seconds maximum with one (1) minute minimum between bursts.*

Series	Weight (Unhoused)	Weight (Housed)	Operating Temp.	Max. Opening Bounce	Max. Closing Bounce	Max. Freq. of Operation [2]	Number of Shutter Blades
VS14	2.05 oz (0.06 kg)	10.22 oz (0.29 kg)	0 - 80 °C	15%	5%	10 Hz / 40 Hz	2



The electronic synchronization system provides a feedback signal (through the driver utilized) after the shutter transfers to the open state. The system incorporates an infrared emitting diode, an infrared sensitive detecting transistor, and an interrupting vane. The vane is attached to the shutter so as to block the light path between the emitter and detector in the closed position. When the shutter transfers to the 80% open position, the vane is removed from the infrared light path, allowing the emitter to switch the detector to the active state. For the VS14, this system uses a similar activation flag attached to the mechanism, which triggers a reflective emitter/detector device. **No connection to the designated synchronization pins when no electronic sync. is selected.**

Technical Drawings - Un-housed VS14

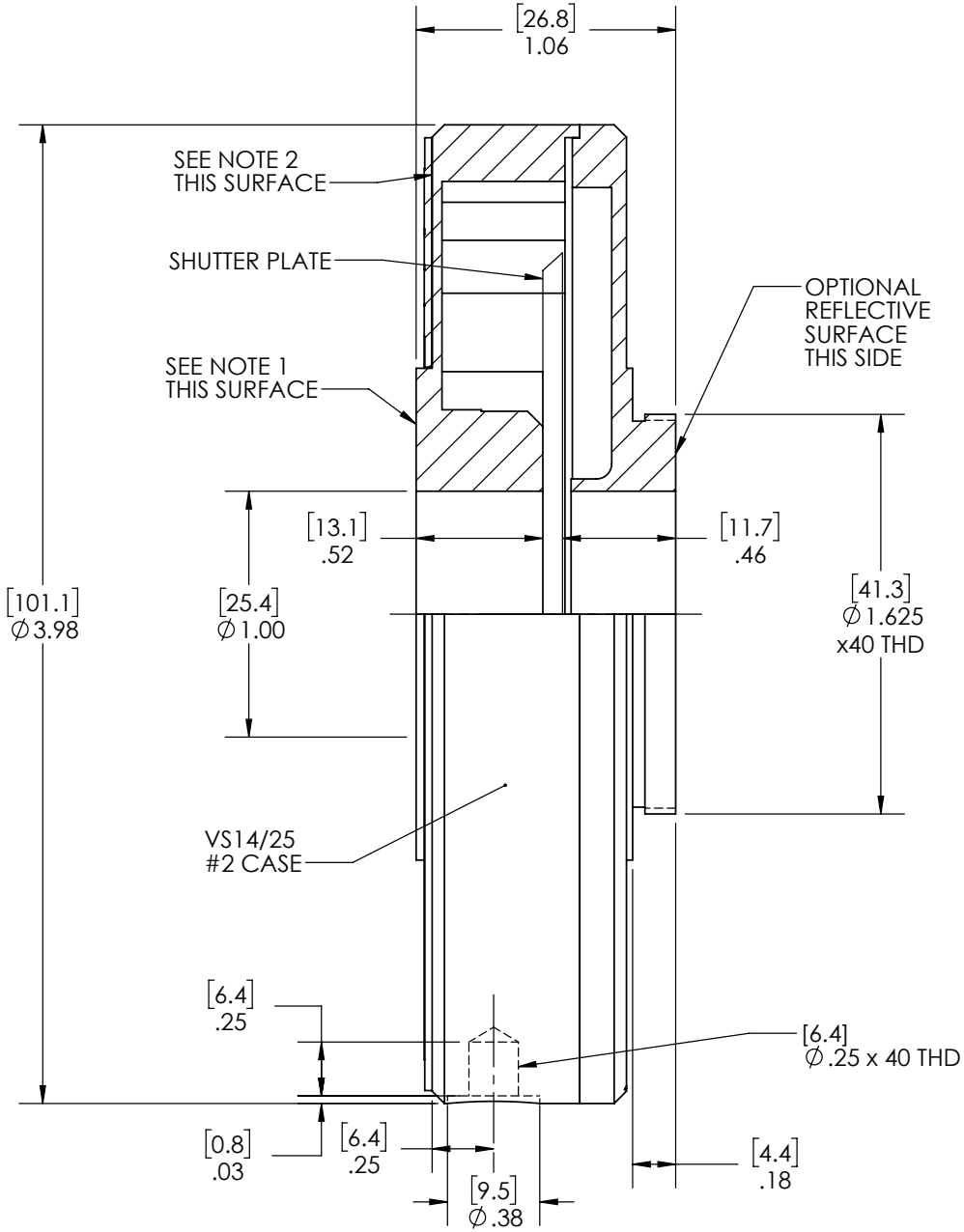


NOTES:

1. APERTURE SIZE:
   A HOLE - Ø1.00 [25.4]
   B HOLE - Ø.55 [14.0]

2. ALL DIMENSIONS
   [MM]
   INCH

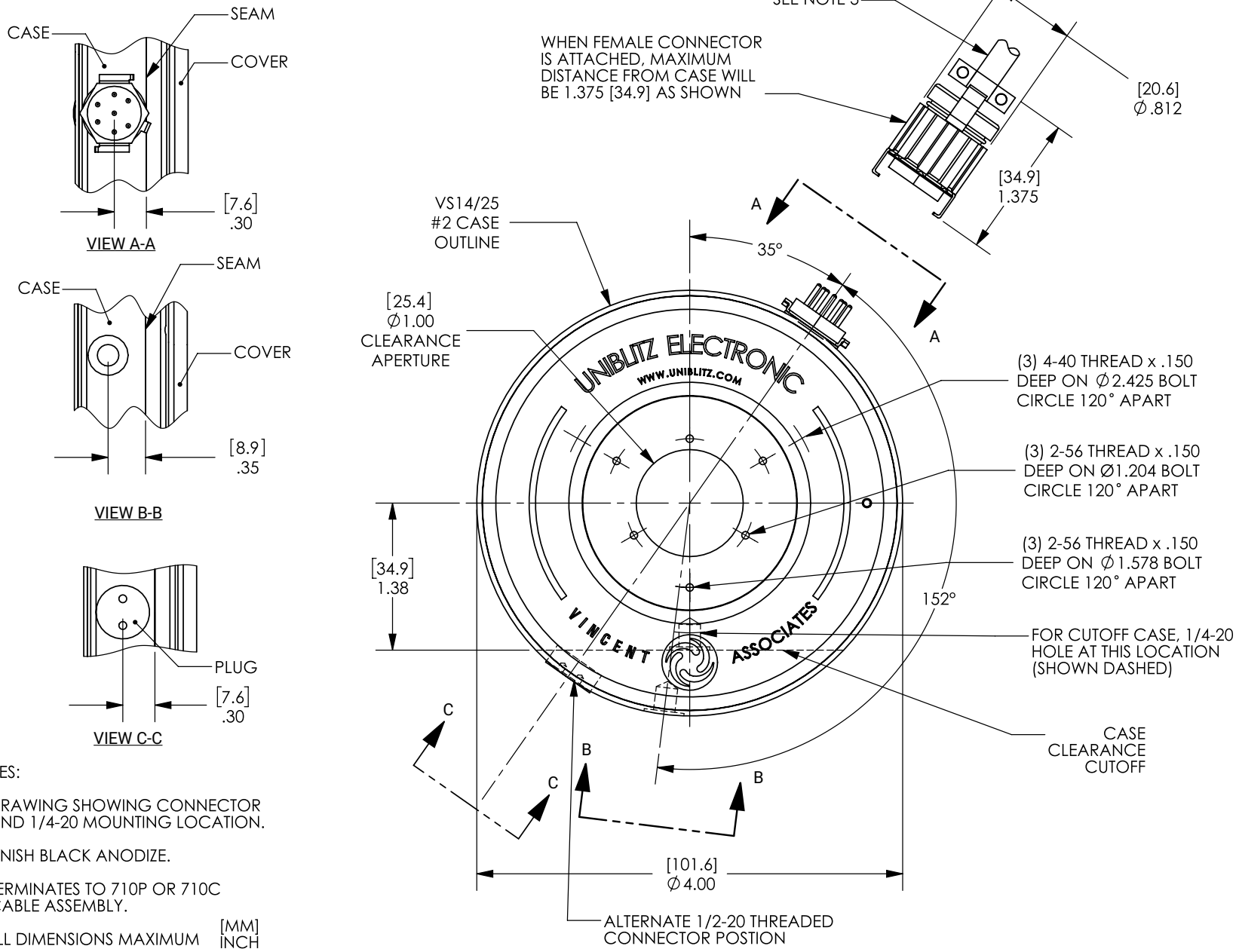
Technical Drawings - Housed VS14



NOTES:

1. (3) #2-56 MOUNTING HOLES ON A
   ∅1.204 BOLT CIRCLE, 120° APART
   (3) #2-56 MOUNTING HOLES ON A
   ∅1.578 BOLT CIRCLE, 120° APART
2. (3) #4-40 MOUNTING HOLES ON A
   ∅2.425 BOLT CIRCLE 120° APART
   (UNDER NAME PLATE)
3. ALL DIMENSIONS
   [MM]
   INCH

Technical Drawings - VS14 Connector Layout



NOTES:

1. DRAWING SHOWING CONNECTOR AND 1/4-20 MOUNTING LOCATION.
2. FINISH BLACK ANODIZE.
3. TERMINATES TO 710P OR 710C CABLE ASSEMBLY.
4. ALL DIMENSIONS MAXIMUM [MM] INCH

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