MT1055/1056 Installation Data
with Standard Zoom Lens

Contents

Product Description

Type:	3 panel, 1.3" p-Si TFT w/MLA LCD projector	Dimensions:	11.1"(W) x 4.8"(H) x 14.9"(D)
Native Resolution:	1024 x 768	Weight:	13.3 lbs
Brightness:	3000 ANSI Lumens (2600 for MT1055)	Manual Focus/Manual Zoom	

Std Lens Specifications

Throw Ratio:	1.8 – 2.2 : 1 (approx)	Focal Length:	49.3 – 59.3mm
Offset Angle:	9.8 – 10.5(Wide)/8.2 – 8.6(Tele)	F/#:	1.8 – 2.2
Screen Sizes:	30" – 300" Diagonal		

Notes

- For screen sizes not indicated on the projection tables, use the formulas below.
- If the figures on the tables do not match the results of formulas, use the figures in the table.
- The ceiling must be strong enough to support the LCD projector and the installation must be in accordance with any local building codes.
- All calculations are based on 4:3 aspect ratio.
- Distances are in inches, for millimeters multiply by 25.4.
- Distances may vary ±5%.

Formulas

Units: Inches (for millimeters multiply final number by 25.4)

Definitions:

> **H** = Horizontal Screen Width (4:3)
> **V** = Vertical Screen Height (4:3)
> **B** = Vertical distance between lens center and screen center
> **C** = Throw distance
> **D** = Vertical distance between lens center and screen top (screen bottom for desktop application)
> α = Throw Angle

Projection Formulas:

B = 0.3193H

C (wide) = 1.8588H – 3.171

C (tele) = 2.2299H – 2.710

D = 0.0557H

α (wide) = $\tan^{-1}$ (B/C(wide))

α (tele) = $\tan^{-1}$ (B/C(tele))

Screen Formulas (4:3):

H = Screen Diagonal x 4/5

V = Screen Diagonal x 3/5

Screen Diagonal = H x 5/4
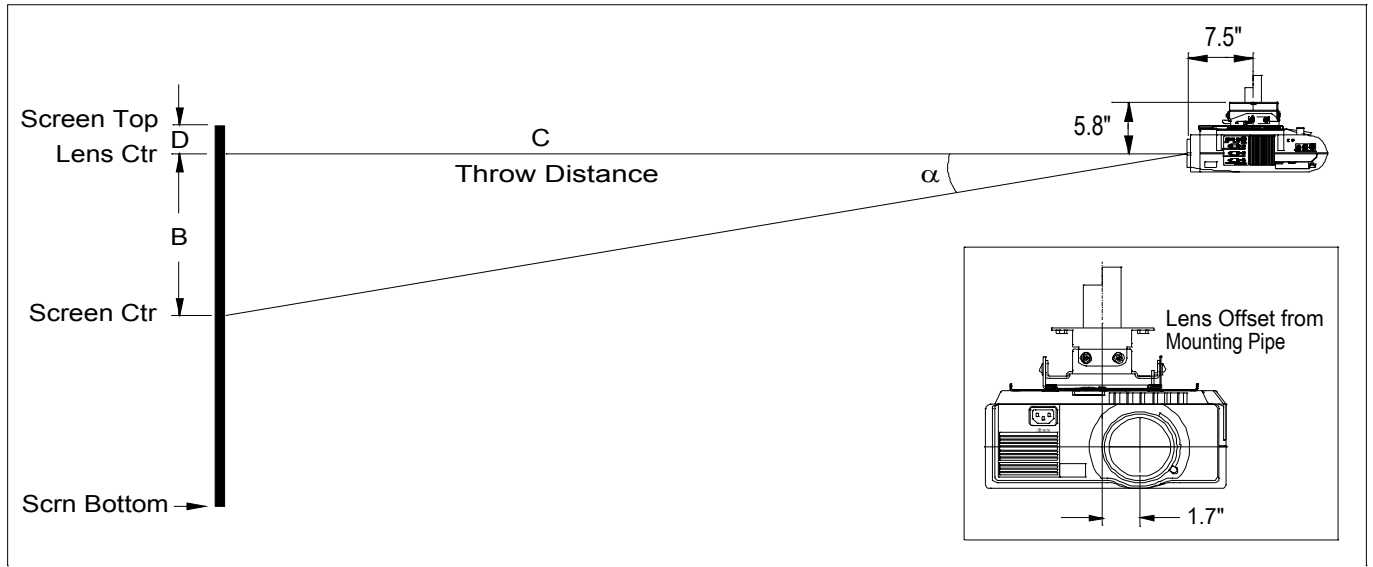
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Projection Distance and Screen Size for Ceiling Mount
The following shows the proper relative position of the projector and screen. Refer to the table for installation data.
Distances are in inches. For millimeters multiply by 25.4.

Ceiling Mount Installation

Distance Chart

Screen Size			B	C	D	α
Diagonal	Width	Height		wide - tele		wide - tele
40"	32"	24"	10.2"	56.3" - 68.6"	1.8"	10.3° - 8.5°
60"	48"	36"	15.3"	86.1" - 104.3"	2.7"	10.1° - 8.4°
67"	53.6"	40.2"	17.1"	96.5" - 116.8"	3.0"	10.1° - 8.3°
72"	57.6"	43.2"	18.4"	103.9" - 125.7"	3.2"	10.0° - 8.3°
84"	67.2"	50.4"	21.5"	121.7" - 147.1"	3.7"	10.0° - 8.3°
90"	72"	54"	23.0"	130.7" - 157.8"	4.0"	10.0° - 8.3°
100"	80"	60"	25.5"	145.5" - 175.7"	4.5"	10.0° - 8.3°
120"	96"	72"	30.6"	175.3" - 211.4"	5.4"	9.9° - 8.3°
150"	120"	90"	38.3"	219.9" - 264.9"	6.7"	9.9° - 8.2°
180"	144"	108"	46.0"	264.5" - 318.4"	8.0"	9.9° - 8.2°
210"	168"	126"	53.6"	309.1" - 371.9"	9.4"	9.9° - 8.2°
240"	192"	144"	61.3"	353.7" - 425.4"	10.7"	9.8° - 8.2°
270"	216"	162"	69.0"	398.3" - 479.0"	12.0"	9.8° - 8.2°
300"	240"	180"	76.6"	443.0" - 532.5"	13.4"	9.8° - 8.2°

Note: For screen sizes not indicated on the projection tables, use the formulas on page 1.
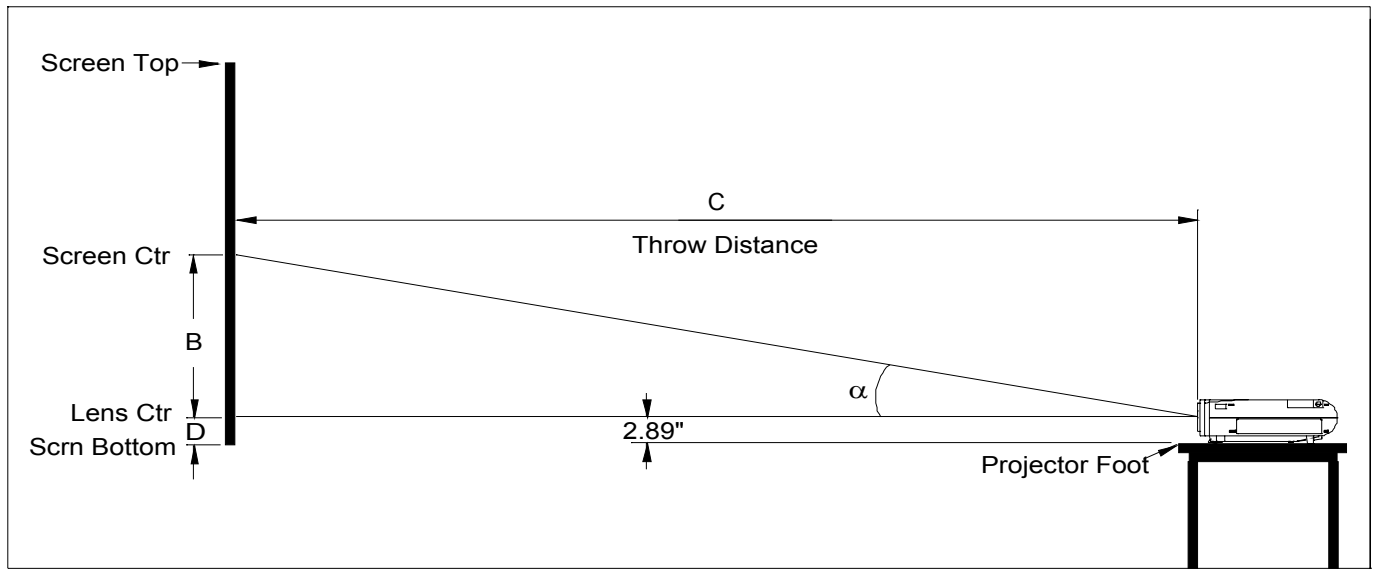
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Projection Distance and Screen Size for Desktop

The following diagram shows the relationship between projector position and the screen.
Distances are in inches. For millimeters multiply by 25.4.

Desktop Setup

Distance Chart

| Screen Size			B	C	D	α
Diagonal	Width	Height		wide - tele		wide - tele
40"	32"	24"	10.2"	56.3" - 68.6"	1.8"	10.3° - 8.5°
60"	48"	36"	15.3"	86.1" - 104.3"	2.7"	10.1° - 8.4°
67"	53.6"	40.2"	17.1"	96.5" - 116.8"	3.0"	10.1° - 8.3°
72"	57.6"	43.2"	18.4"	103.9" - 125.7"	3.2"	10.0° - 8.3°
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180"	144"	108"	46.0"	264.5" - 318.4"	8.0"	9.9° - 8.2°
210"	168"	126"	53.6"	309.1" - 371.9"	9.4"	9.9° - 8.2°
240"	192"	144"	61.3"	353.7" - 425.4"	10.7"	9.8° - 8.2°
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Note: For screen sizes not indicated on the projection tables, use the formulas on page 1.

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Cabinet Dimensions

The following diagrams show the cabinet dimensions for the MT1055/1056.
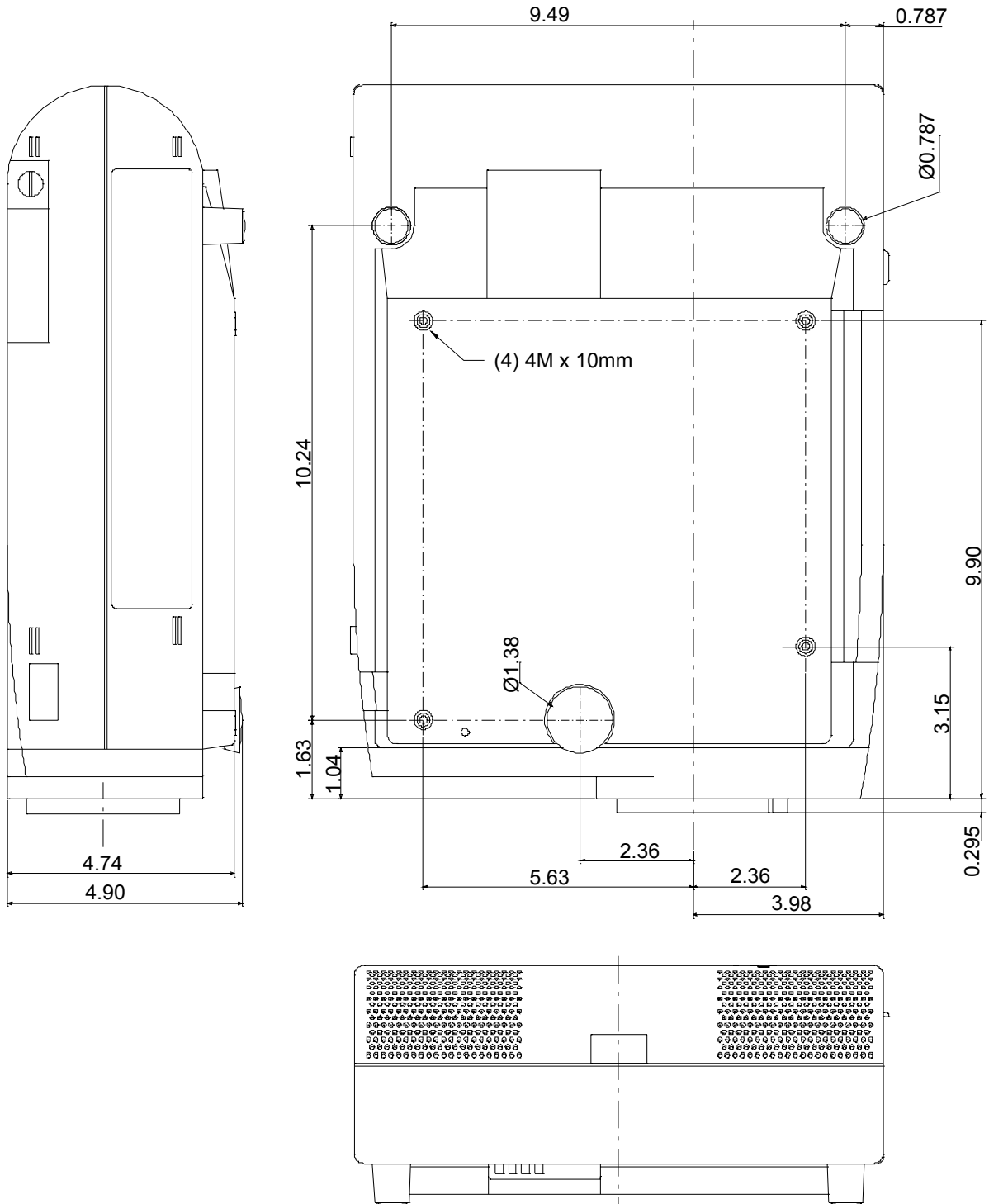Dimensions are in inches. For millimeters multiply by 25.4.
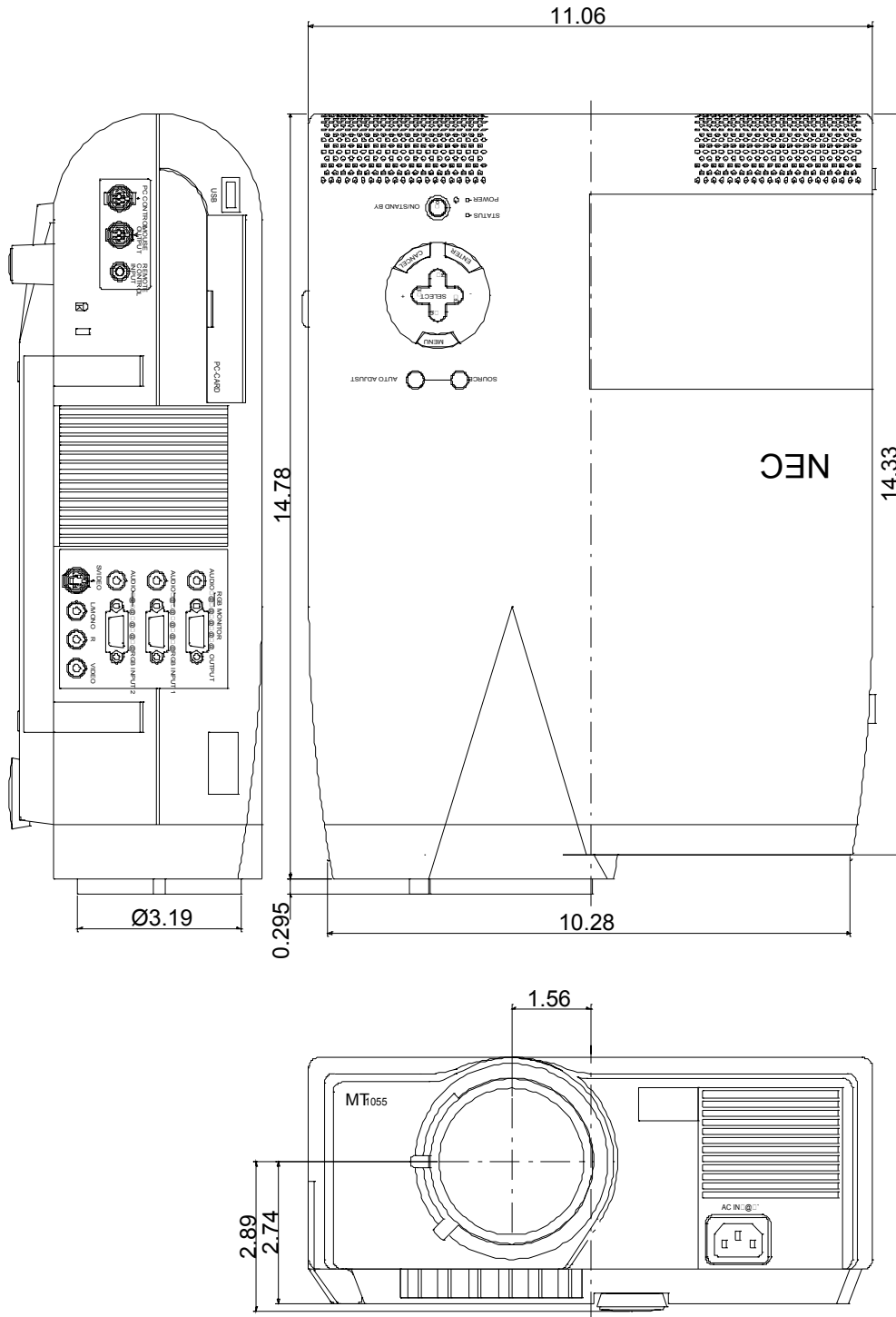
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Cabinet Dimensions (continued)

The following diagrams show the cabinet dimensions for the MT1055/1056.
Dimensions are in inches. For millimeters multiply by 25.4.

9.49 0.787

Ø0.787

(4) 4M x 10mm

10.24

9.90

Ø1.38

3.15

1.63

1.04

2.36

0.295

4.74

4.90

5.63 2.36

3.98

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Ceiling Mount Dimensions (Model #: MTCM)
The following diagrams show ceiling mount dimensions for the MT850/1050/1055/1056.
Dimensions are in inches. For millimeters multiply by 25.4.
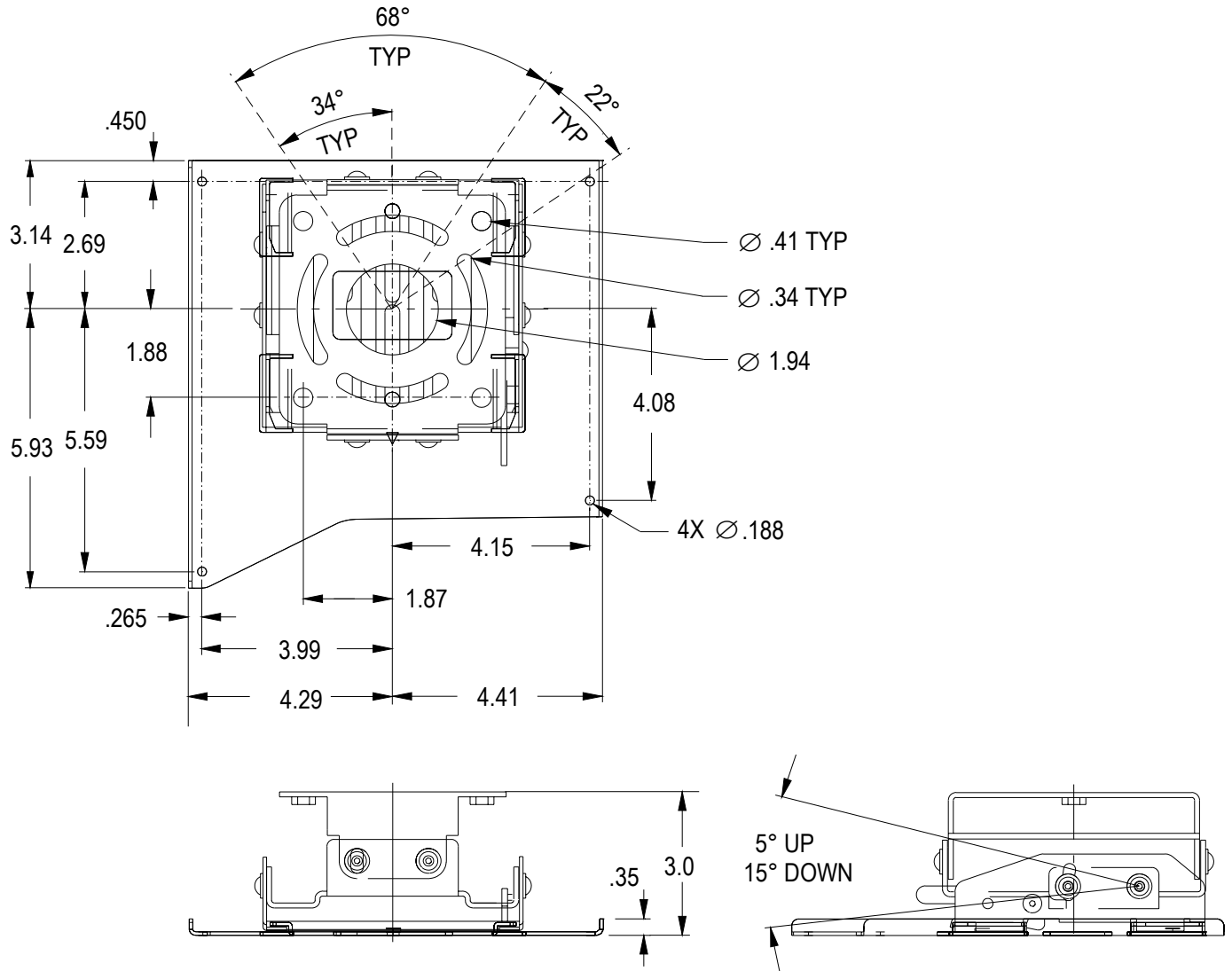
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Control Codes

Function	Code Data						
POWER ON	02H	00H	00H	00H	00H	02H	
POWER OFF	02H	01H	00H	00H	00H	03H	
INPUT SELECT RGB1	02H	03H	00H	00H	02H	01H	01H	09H
INPUT SELECT RGB2	02H	03H	00H	00H	02H	01H	02H	0AH
INPUT SELECT VIDEO	02H	03H	00H	00H	02H	01H	06H	0EH
INPUT SELECT S-VIDEO	02H	03H	00H	00H	02H	01H	0BH	13H
INPUT SELECT PC CARD VIEWER	02H	03H	00H	00H	02H	01H	1FH	27H
PICTURE MUTE ON	02H	10H	00H	00H	00H	12H	
PICTURE MUTE OFF	02H	11H	00H	00H	00H	13H	
SOUND MUTE ON	02H	12H	00H	00H	00H	14H	
SOUND MUTE OFF	02H	13H	00H	00H	00H	15H	
ON SCREEN MUTE ON	02H	14H	00H	00H	00H	16H	
ON SCREEN MUTE OFF	02H	15H	00H	00H	00H	17H	

Cable Connection

Communication Protocol:

Baud Rate:	38400 bps
Data Length:	8 bits
Parity:	No Parity
Stop Bit:	One bit
X on/off:	None
Communications:	Full duplex

PC Control Connector (DIN-8P)

To RxD of PC

8 7 6
5 4 3
2 1

To GND of PC   To TxD of PC
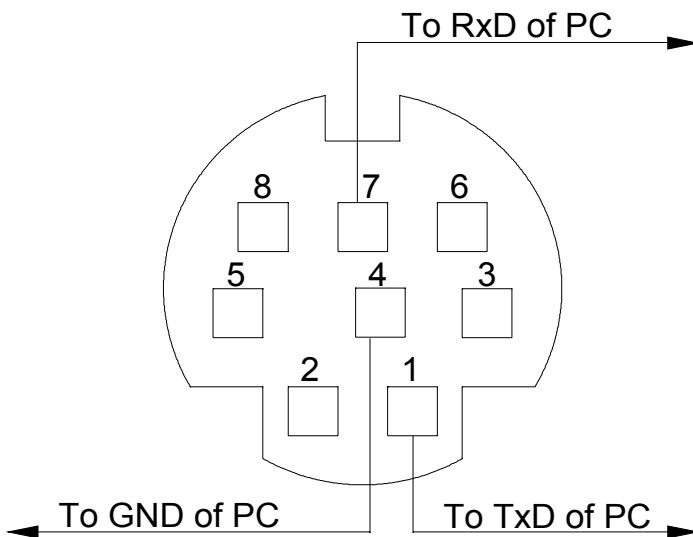
NOTE 1: *Pins 2, 3, 5, 6 and 8 are used inside the projector.*
NOTE 2: *For long cable runs it is recommended to set communication speed within projector menus to 9600 bps.*