

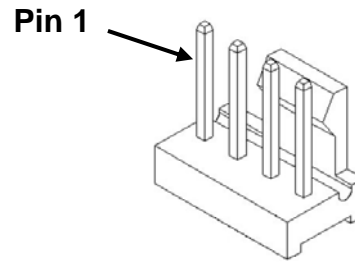


823141 Active Cooler for KT965





For 4-wire Fan connector on KT965:



PIN	Signal	Type	Ioh/Iol	Pull U/D	Note
1	CONTROL	O	-	-	
2	SENSE	I	-	4K7	
3	+12 V	PWR	-	-	
4	GND	PWR	-	-	

CONTROL: is PWM (Pulse Width Modulated) output (Open Collector) signal. Frequency ~ 25KHz. Maximum allowed sink current is 25mA. Pulse Width controlled by Motherboard.

SENSE: is Tacho signal input to measure RPM (Rotation Per Minute), 2 pulses per rotation. The FAN must be able to sink at least 2.5mA through an Open Collector output.

+12V: Output Power, maximum current is 2000mA.

PRODUCT SPECIFICATION

A. General Specification

(Item)		(Specification/Condition)
01	Part No.	AK-955A-B
02	Outline	94.8x94.8x62mm
03	Weight	476 g

B. Fan Specification

(Item)		(Specification/Condition)	
01	Part No.	F129025BU-AF	
02	Bearing System	Two Ball Bearing	
03	Outline Dimension	92x92x25mm(8cm Pitch)	
04	Rated Voltage	DC 12 V	
05	Operating Range	DC 11.4~12.6 V	
06	Rated Current	Duty cycle=100%=0.38A Duty cycle=0-20%=0.10A	A. Rated Voltage B. 25° c. 65% RH
07	Power Consumption	Duty cycle=100%=4.56W Duty cycle=0-20%=1.20W	
08	Speed	Duty cycle=100% =3400RPM ±10RPM Duty cycle=0-20% 500RPM ±400RPM	A. 25° c. 65% RH B. Free Air C. Rated Voltage
09	Max. Airflow	Duty cycle=100%=40.90 CFM(ft ³ /min) Duty cycle=0%=5.77CFM (ft ³ /min)	A. Rated Voltage B. AMCA(Standard) C. Rated Current
10	Max. Static Pressure	Duty cycle=100%=3.81 mm H ₂ O Duty cycle=0%=0.08 mm H ₂ O	
11	Noise Level	Duty cycle=100%=36 dB(A)(Max. 39dB(A)) Duty cycle=0%=19dB(A) (Max. 21dB(A))	A. Rated Voltage B. Measured in a Non-Echo Chamber C. CNS 8753 Standard D. ISO 3744 Test Condition
12	Life	70000/hrs 40° C	MTTF Mean Time to Failure Conf. Level 90%
13	No. Of Blade	7 Blades	
14	No. Of Pole	4 Poles	
15	Weight	63 g	
16	Rotating Direction	Clockwise From Label Side	
17	Safety Approval	UL; TUV; CE	
18	Tolerance	±10%	
19	Color	Black	

C. Heatsink Specification

(Item)		(Specification/Condition)
01	Dimension	87.2x85.2x34.8mm
02	Material	AL6063-T5 sink with copper insert

D. Thermal Interface Specification

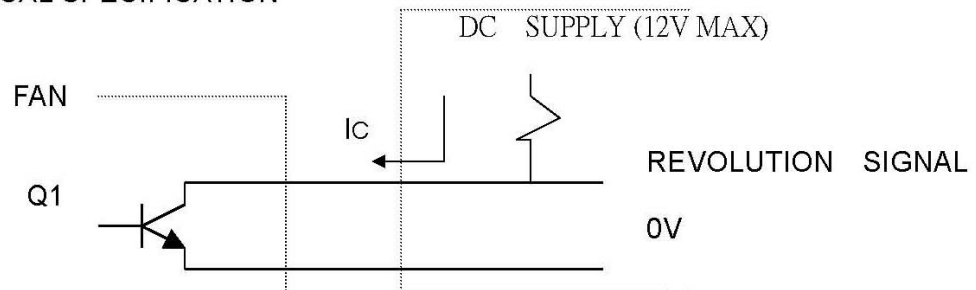
(Item)		(Specification/Condition)
01	Part No.	STC-640
02	Package form	29.7x29.7mm Pre Screen Apply
03	Color	Gray

PROVISION OF REVOLUTION SIGNAL

-1 OUTPUT OF REVOLUTION SIGNAL

.OUTPUT TYPE
.ELECTRICAL SPECIFICATION

OPEN COLLECTOR TYPE



TRANSISTOR Q1 AT "ON" POSITION
COLLECTOR CURRENT SATURATION VOLTAGE BETWEEN COLLECTOR AND EMITTER AT $I_C = 10\text{mA MAX.}$
TRANSISTOR Q1 AT "OFF" POSITION
RELEASE VOLTAGE

$I_C = 10\text{ mA MAX.}$
 $V_{OL} = 0.5\text{V MAX.}$

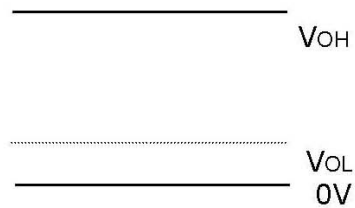
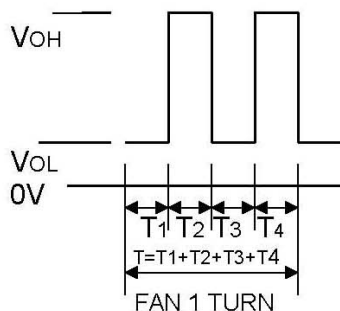
$V_{OH} = 12\text{V MAX}$

-2 OUTPUT WAVEFORM

(ACCORDING TO INPUT VOT.)

(AT REVOLUTION)

(AT LOCKED POSITION)



REMARK: AT LOCKED POSITION, OUTPUT BECOMES V_{OH} OR V_{OL}

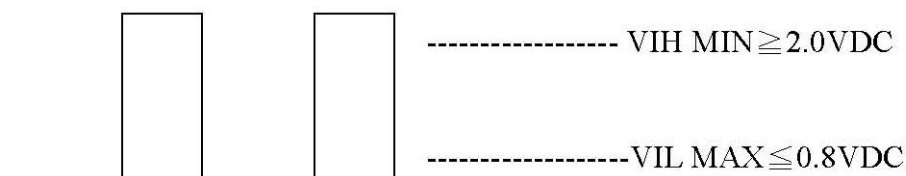
$T = T_1 + T_2 + T_3 + T_4 = 60/N$ (SEC) N : FAN SPEED (r.p.m)

$$\text{DUTY} = \frac{T_1}{T_1 + T_2} = 50 \pm 10\%$$

-3 PWM CONTROL INPUT SIGNAL:

MAXIMUM VOLTAGE FOR LOGIC LOW: MAX $V_{IL} \leq 0.8\text{VDC}$

MINIMUM VOLTAGE FOR LOGIC HIGH: MIN $V_{IH} \geq 2.0\text{VDC}$



IMPORTANT NOTES & GENERAL INSTRUCTIONS

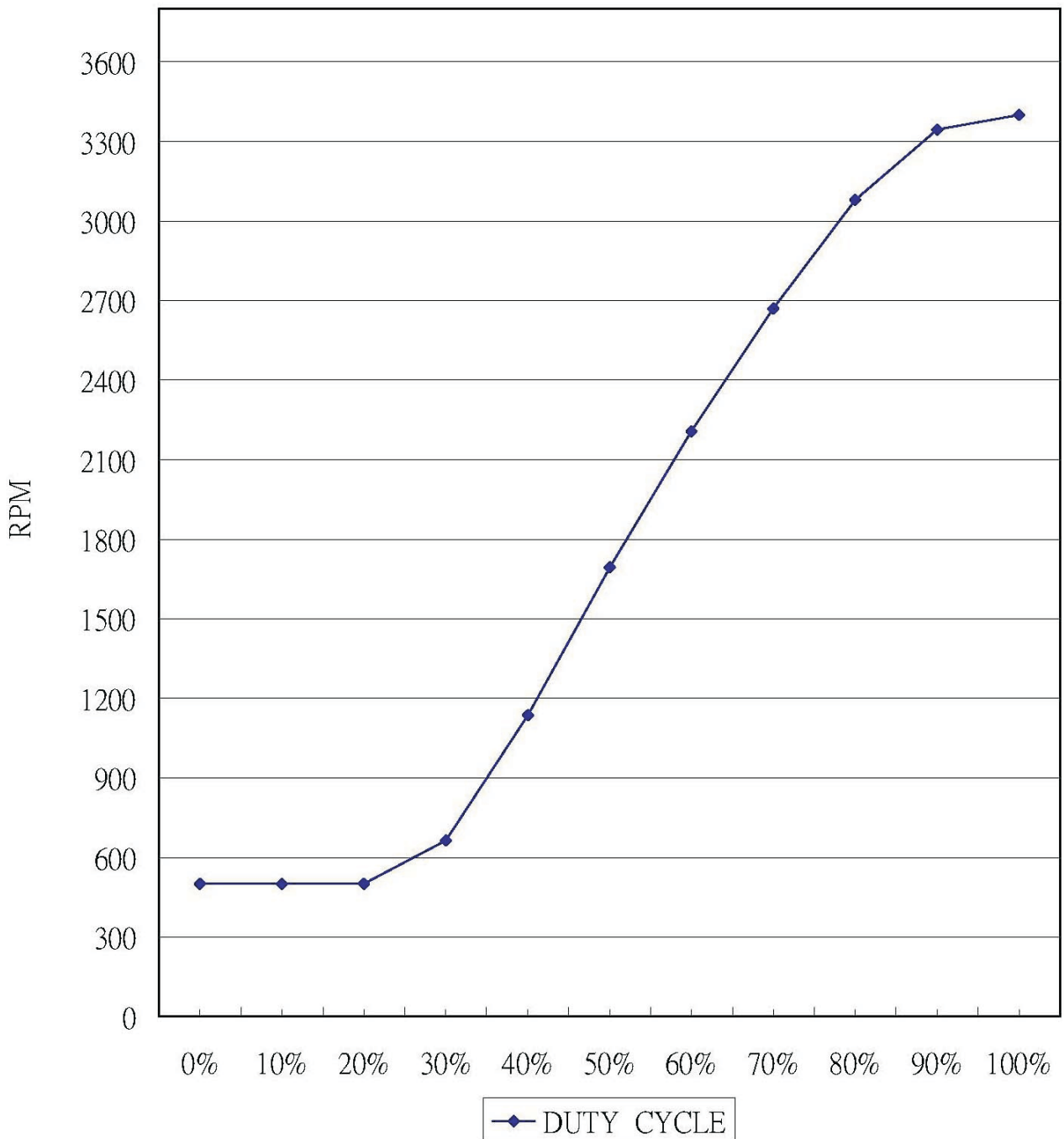
1. Customer shall confirm the matching and reliability of fan on actual set or unit application.
This include confirmation on set or unit life, electrical noise, mechanical noise, vibration, static electricity, electric power noise, drift, electric resonance between motor and control circuit, mechanical resonance between motor and chassis, irregular movement of set due to motor noise, irregular movement of set in strong electromagnetic field, damaged by lightning surge earthing method etc.
2. Any revisions on the specification shall be done based on mutual discussion and agreement.
3. In order to improve the performance within the scope of specification, parts or material changes are subject to prior notice to customer.
4. Any item which is needed to add into specification shall be determined on customer's prior written request. If no information given, fan will be delivered based on our standard judgment.
5. When any trouble occurs, both parties shall discuss on this specification to solve the matters. In this case, our guarantee is only limited to fans.

F129025BU—AF

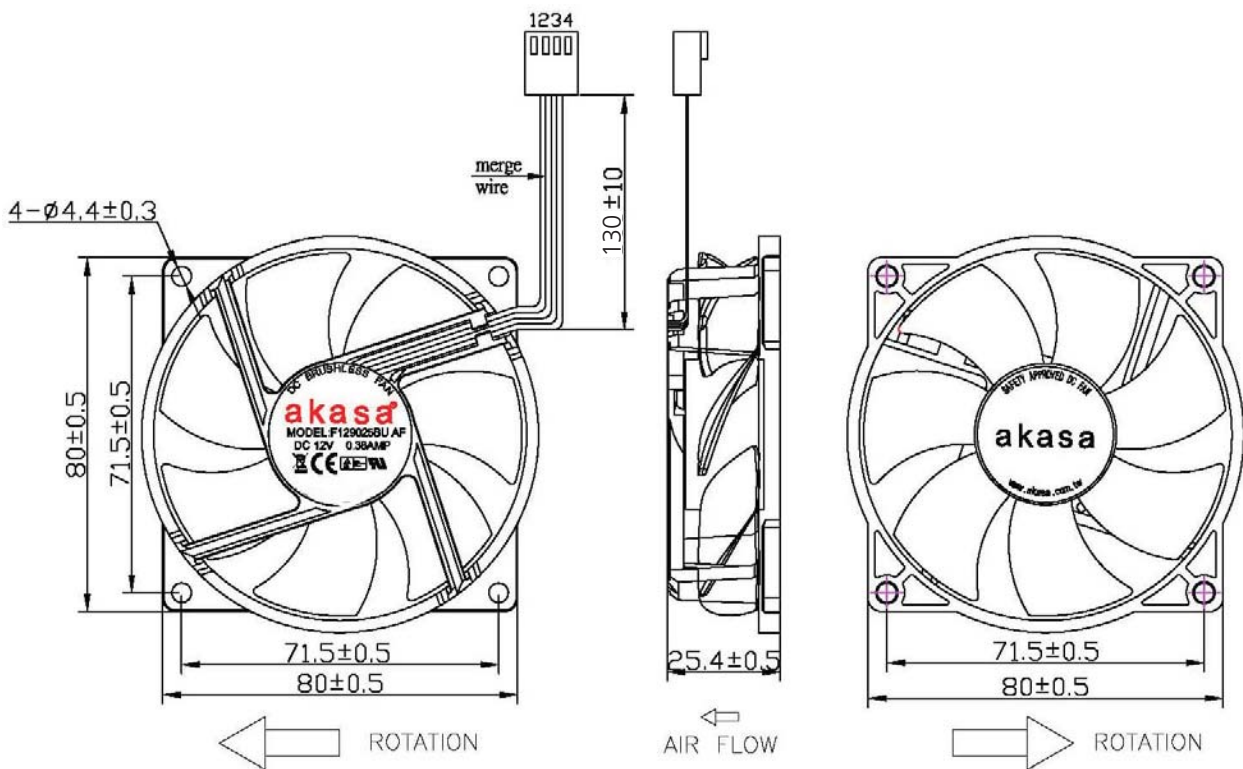
DUTY CYCLE	SPEED (RPM)	RANGE	CURRENT
0%~20%	500	± 400	$<0.10A$
100%	3400	$\pm 10\%$	$<0.38A$

DUTY CYCLE CURVE CHART

(F = 25KHZ V = 5V(5.25max) Duty cycle : 0 ~ 100%)



Fan Dimension Drawing

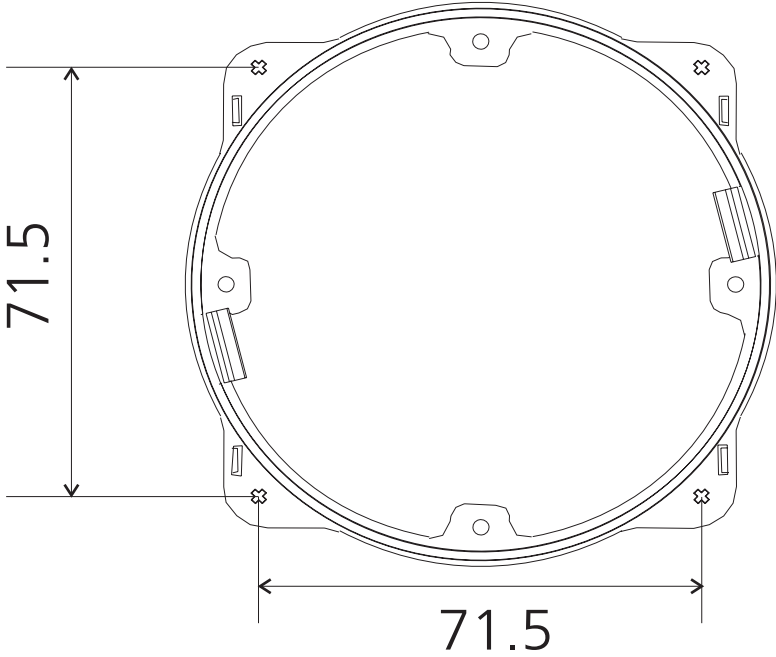
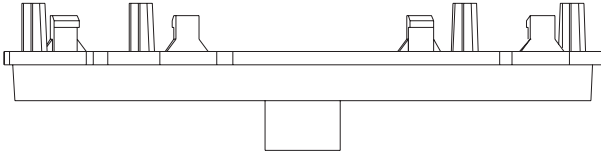
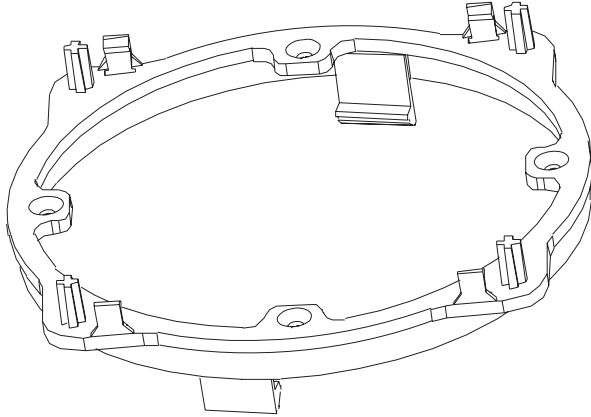


NOTES:

1. LEAD WIRE UL 1007 #26AWG OR EQUIVALENT
PIN 1: BLACK WIRE---(-)
PIN 2: YELLOW WIRE---(+)
PIN 3: GREEN WIRE---(SIGNAL)
PIN 4: BLUE WIRE---(PWM INPUT)
2. HOUSING: A2543-4P OR EQUIVALENT

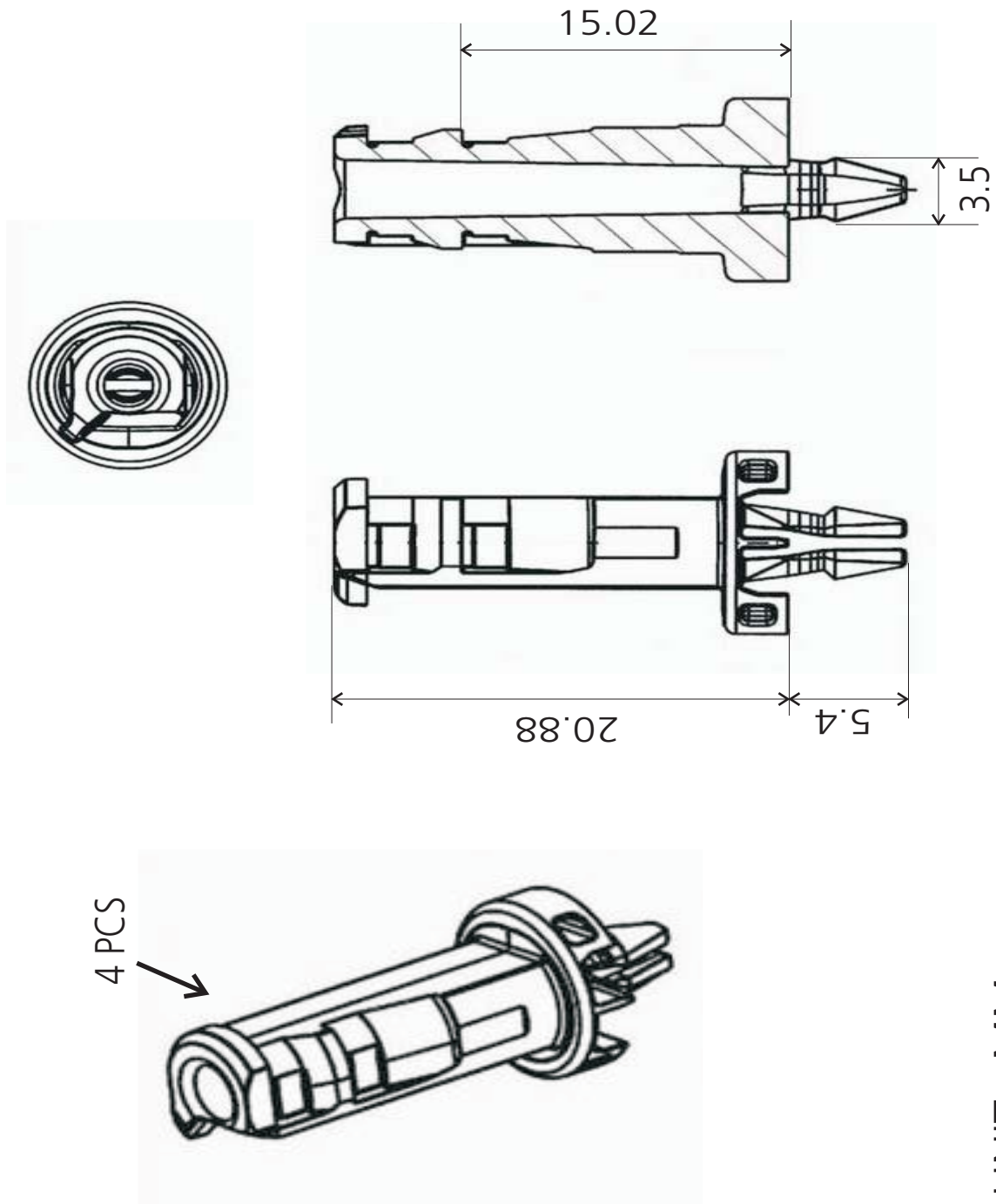
UNIT IN : MM

Fan Frame Dimension Drawing



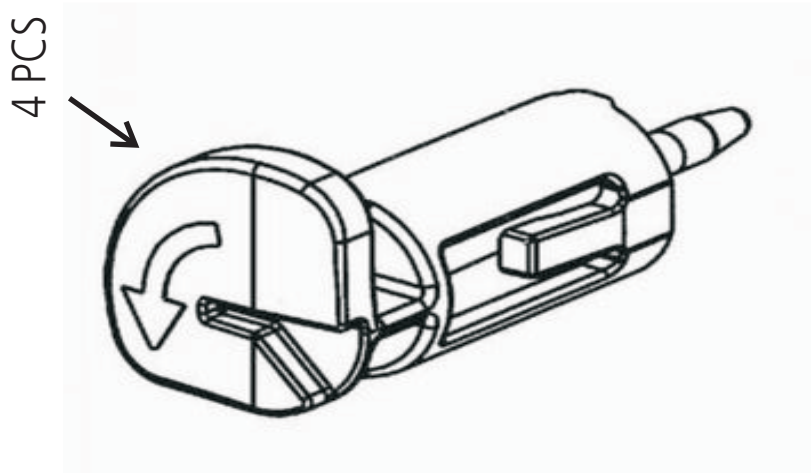
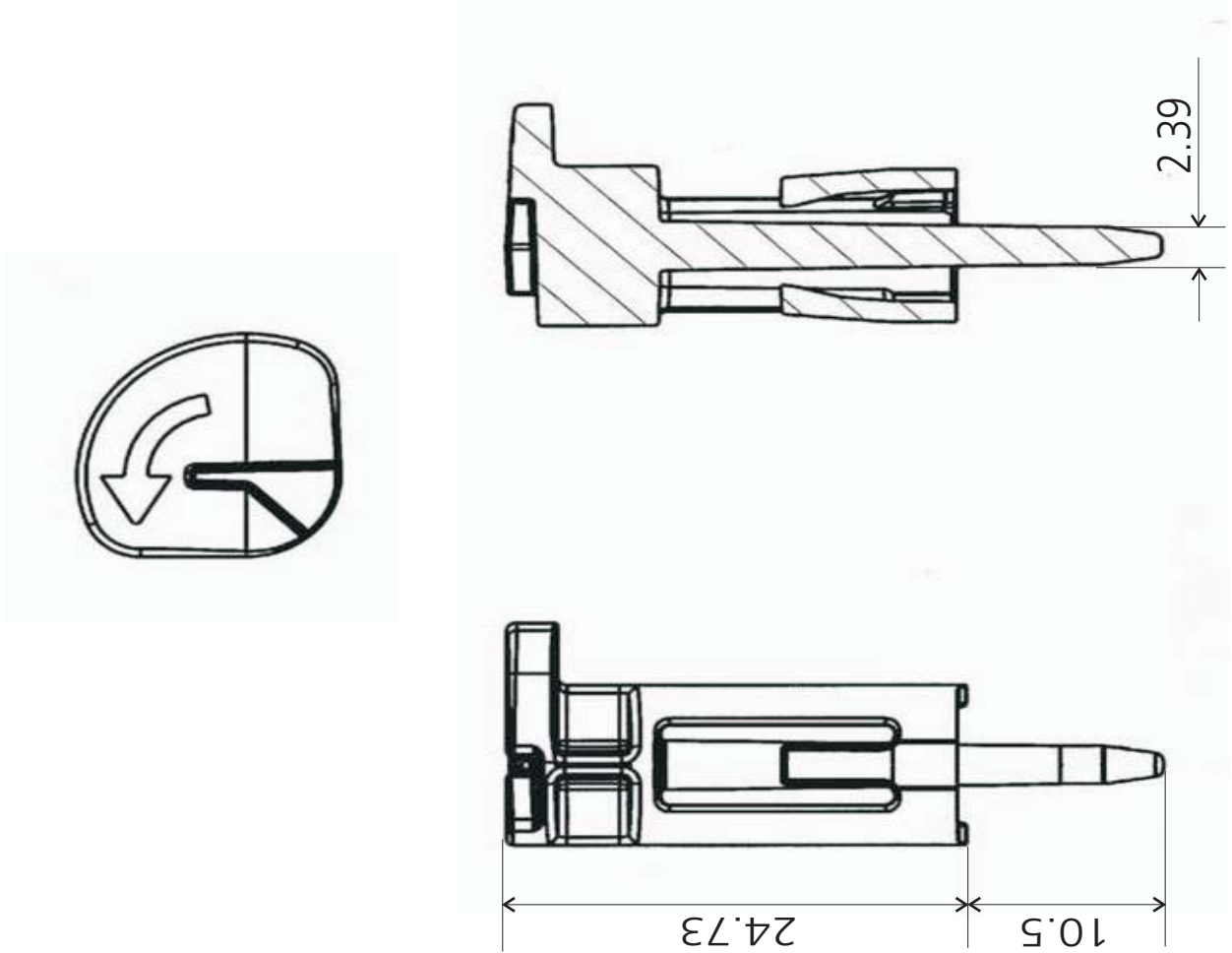
UNIT : MM

Push Pin(White) Dimension Drawing



UNIT : MM

Push Pin(Black) Dimension Drawing



UNIT : MM