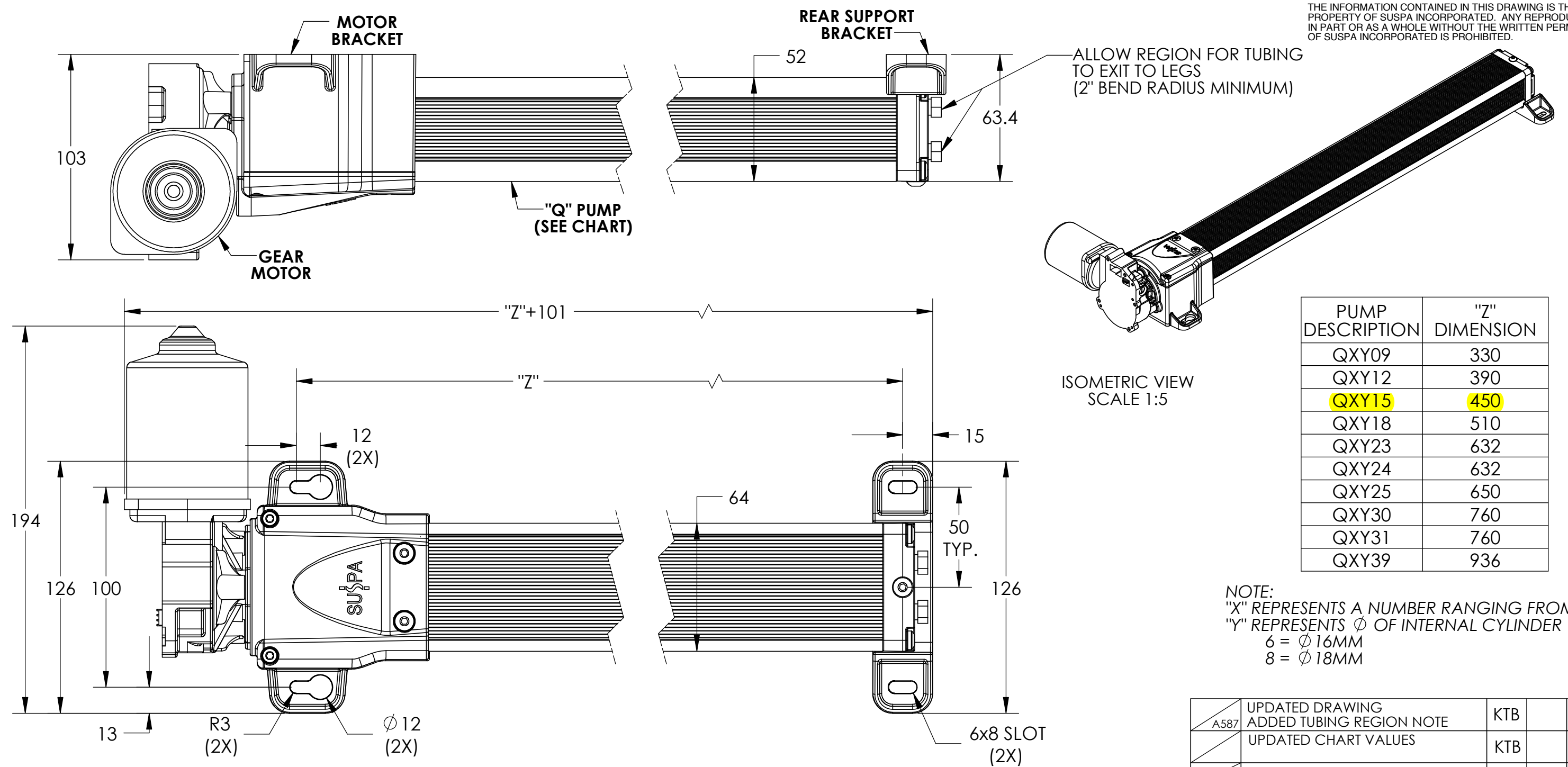


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PUMP DESCRIPTION	"Z" DIMENSION
QXY09	330
QXY12	390
QXY15	450
QXY18	510
QXY23	632
QXY24	632
QXY25	650
QXY30	760
QXY31	760
QXY39	936

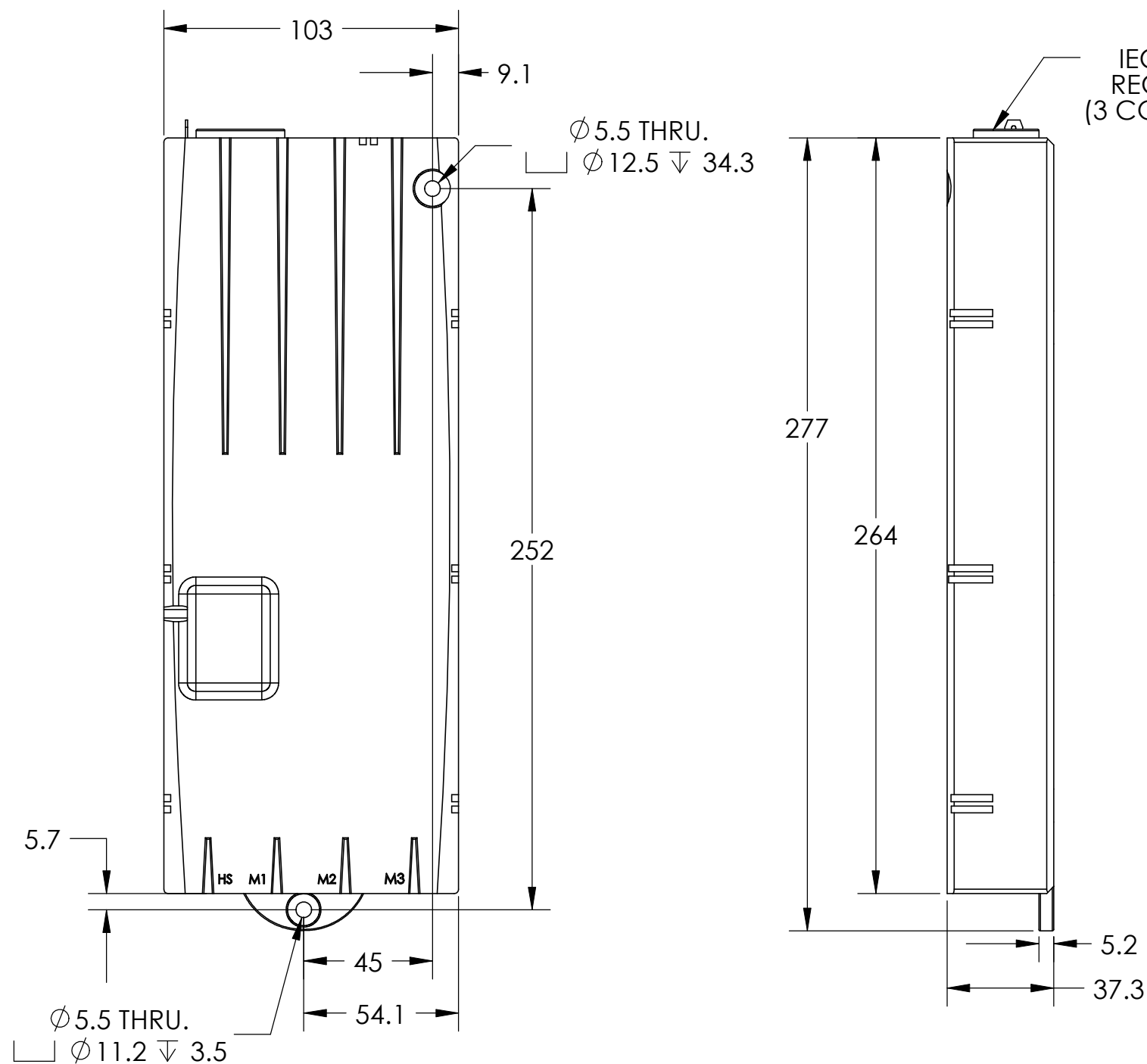
NOTE:
"X" REPRESENTS A NUMBER RANGING FROM 1-4.
"Y" REPRESENTS Ø OF INTERNAL CYLINDER
6 = Ø 16MM
8 = Ø 18MM

- NOTES:
- 1.) ALL DIMENSIONS ARE REFERENCE ONLY.
 - 2.) GEAR MOTOR SHOWN IS A UL RECOGNIZED COMPONENT. (UL FILE NUMBER: E247336).
 - 3.) MOTOR CABLE AND CONTROL BOX NOT SHOWN.
 - 4.) ALL MATERIALS ARE USED IN THIS PRODUCT ARE ROHS COMPLIANT.

DO NOT MANUFACTURE TO THIS DRAWING UNLESS IT IS MARKED "CONTROLLED"			
DO NOT SCALE THIS DRAWING DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS OTHERWISE SPECIFIED			
ONE PLACE DECIMAL	+/-0.2	ANGULAR	+/-2°
TWO PLACE DECIMAL	+/-0.1		
DRAWN BY	DATE	SCALE	THIRD ANGLE PROJECTION
AJB	06/02/11	1:2	
CUSTOMER DRAWING			

A587	UPDATED DRAWING ADDED TUBING REGION NOTE	KTB		01/13/14
	UPDATED CHART VALUES	KTB		06/24/13
REV	ECN	REVISIONS	CHANGED BY	APPROVED BY
DESCRIPTION				
Q PUMPS WITH MOTOR				
MATERIAL				
N/A				
DRAWING NUMBER				
S45-0031A				
SUSPA INCORPORATED				DRAWING SIZE
3970 Roger B. Chaffee S.E. Grand Rapids, Michigan 49548-3497 www.suspa.com				B

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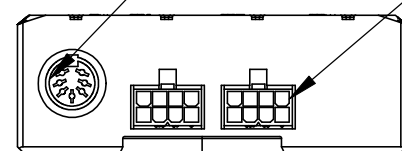


NOTES:

- 1.) ALL DIMENSIONS ARE REFERENCE ONLY.
- 2.) ELECTRICAL CHARACTERISTICS:
 - INPUT VOLTAGE/FREQUENCY: 90-127VAC, 50/60Hz.
 - CONTROL VOLTAGE/CURRENT: 27VDC/9A.
 - SWITCH VOLTAGE/CURRENT: 5VDC/150mA.
- 3.) DUTY CYCLE: 10% (1 minute ON, 9 minutes OFF).
- 4.) OPERATING TEMPERATURE: 0-30° C.
- 5.) STORAGE TEMPERATURE: -40-85° C.
- 6.) PROTECTION CLASS: I.
- 7.) MOTOR CONTROL IS UL RECOGNIZED IN US AND CANADA UNDER UL STANDARD 60650 (REFERENCE UL FILE NUMBER: E219105).
- 8.) POWER CORD (3 METERS LONG) INCLUDED WITH MOTOR CONTROL.
- 9.) WEIGHT: 0.5 kg.

REV	ECN	DESCRIPTION	CHANGED BY	APPROVED BY	DATE (MM/DD/YR)
		RELEASED	AJB		05/17/11
US 120V COM/E CONTROLLER					
MATERIAL N/A					
DRAWING NUMBER S45-0027					
DRAWING SIZE B					

7 PIN DIN RECEPTACLE
(SWITCH CONNECTION)



8 PIN MOLEX RECEPTACLE
(2X AS SHOWN) -
(M1, M2 CONNECTION)

DO NOT MANUFACTURE TO THIS DRAWING
UNLESS IT IS MARKED "CONTROLLED"

DO NOT SCALE THIS DRAWING
DIMENSIONS ARE IN MILLIMETERS
TOLERANCES UNLESS OTHERWISE SPECIFIED

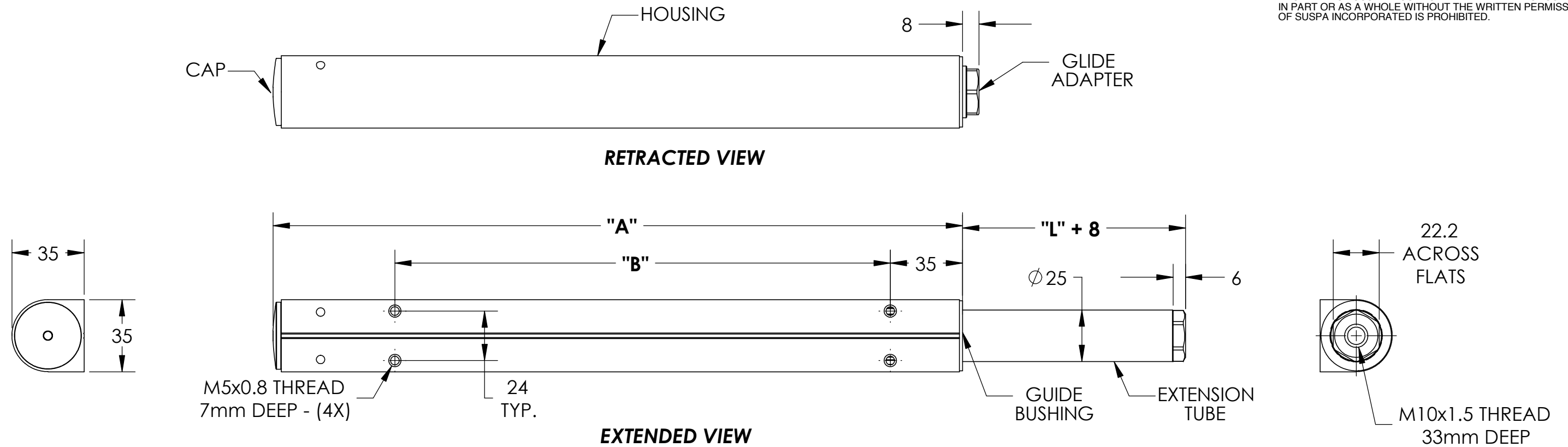
ONE PLACE DECIMAL ± 0.2 ANGULAR $\pm 2^\circ$
TWO PLACE DECIMAL ± 0.1

DRAWN BY AJB DATE 03/30/11 SCALE 1:2 THIRD ANGLE PROJECTION

CUSTOMER DRAWING

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3970 Roger B. Chaffee S.E.
Grand Rapids, Michigan 49548-3497
www.suspa-inc.com

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NOTES:

1.) ALL DIMENSIONS ARE REFERENCE ONLY.

2.) MATERIAL SPECIFICATIONS:

CAP: BLACK LDPE.

HOUSING: TEMPERED ALUMINUM WITH CLEAR ANODIZED FINISH.

GUIDE BUSHING: BLACK ACETAL.

EXTENSION TUBE: STAINLESS STEEL.

GLIDE ADAPTER: STEEL WITH ZINC PLATED FINISH.

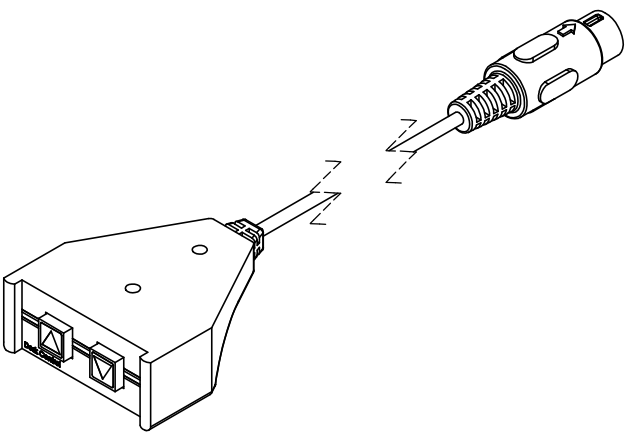
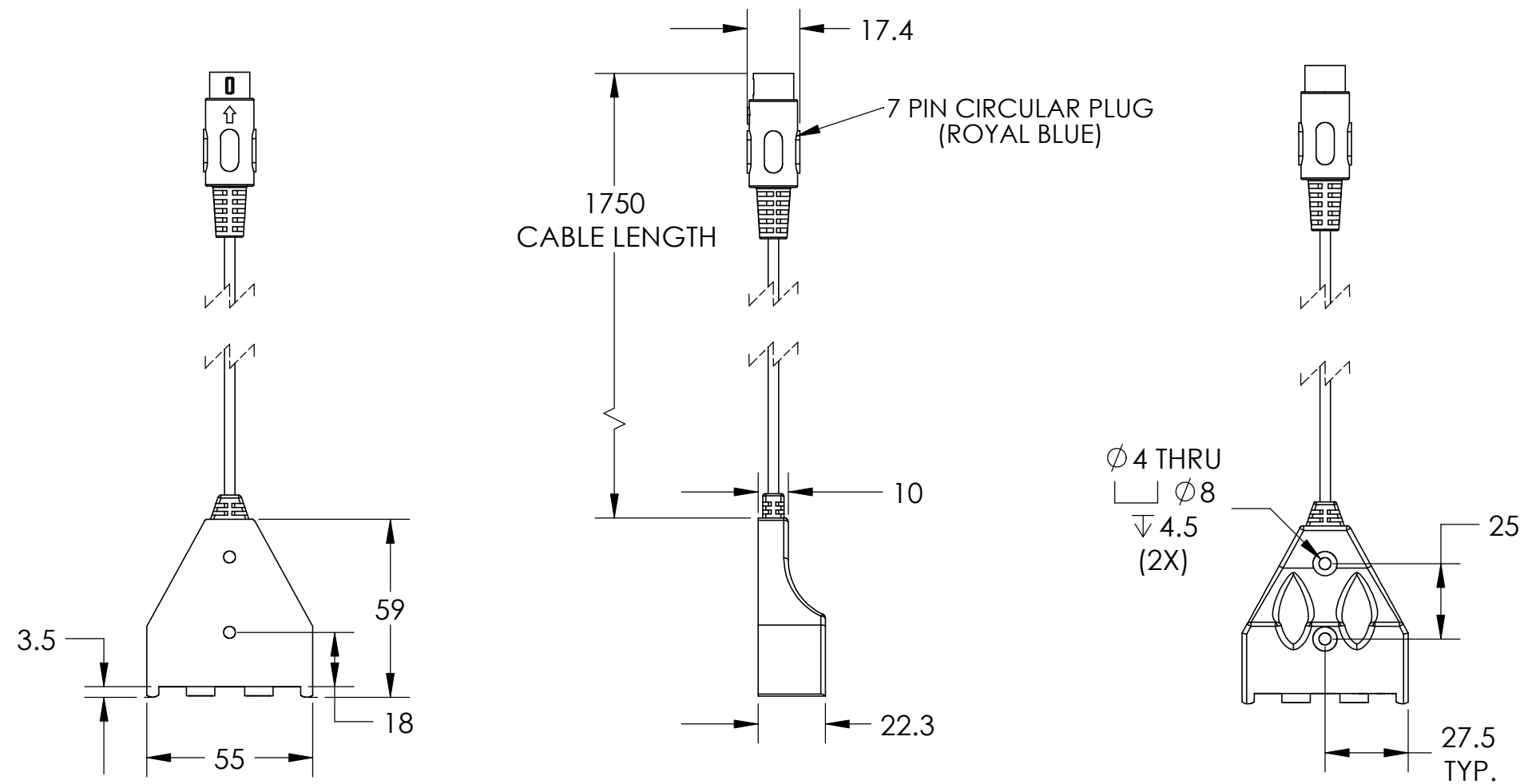
CYLINDER DESCRIPTION	"L" STROKE	"A" DIMENSION	"B" DIMENSION
CBX15	150	258.5	165
CBX20	200	333.5	240
CBX25	250	383.5	240
CBX31	305	463.5	340
CBX40	400	558.5	340
CBX50	500	683.5	450

"X" INDICATES ϕ OF INTERNAL CYLINDERS
4 = ϕ 14MM
6 = ϕ 16MM

DO NOT MANUFACTURE TO THIS DRAWING UNLESS IT IS MARKED "CONTROLLED"			
DO NOT SCALE THIS DRAWING DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS OTHERWISE SPECIFIED			
ONE PLACE DECIMAL		+/-0.2	ANGULAR
TWO PLACE DECIMAL		+/-0.1	+/-2°
DRAWN BY	DATE	SCALE	THIRD ANGLE PROJECTION
JED	11/11/04	1:2	
CUSTOMER DRAWING			

REV	ECN	DESCRIPTION	CHANGED BY	APPROVED BY	DATE (MM/DD/YR)
A587		UPDATE CYLINDER DESCRIPTIONS	KTB		01/13/14
		ADD A FEW MISSING CYLINDERS	AJB		06/04/12
CB CYLINDERS					
MATERIAL N/A					
DRAWING NUMBER S40-0001					
SUSPA INCORPORATED 3970 Roger B. Chaffee S.E. Grand Rapids, Michigan 49548-3497 www.suspa-inc.com					DRAWING SIZE B

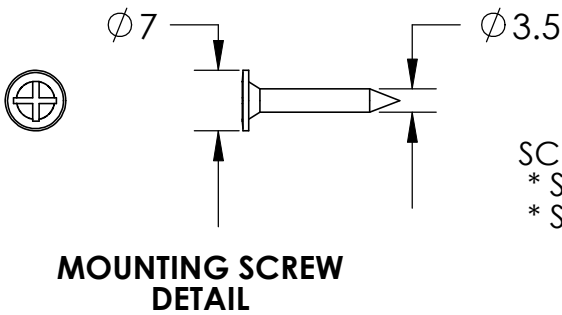
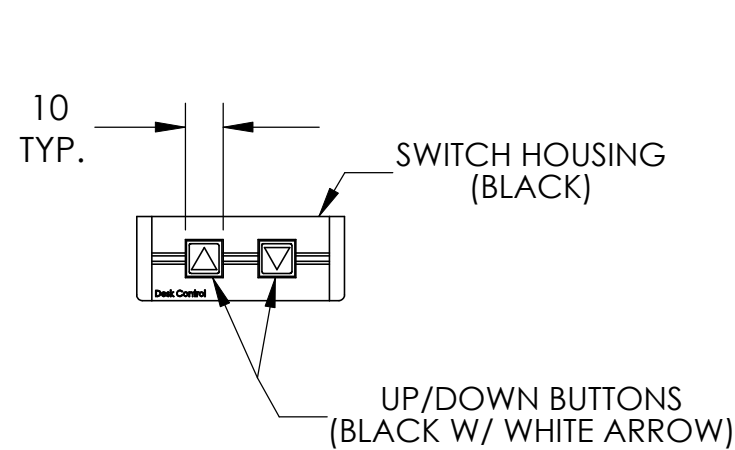
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ISOMETRIC VIEW

NOTES:

- 1.) ALL DIMENSIONS ARE REFERENCE ONLY.
- 2.) PACKAGE CONTAINS (2X) WOOD MOUNTING SCREWS - SEE DETAIL BELOW.
- 3.) SURFACE MOUNT SWITCH TO BE USED IN CONJUNCTION WITH MOVOTEC E-DRIVE MOTOR ASSEMBLY.
- 4.) REF. SUSPA P/N: 645-02553.



SCREW LENGTHS:
* SCREW 1 - 22.4 mm
* SCREW 2 - 32.0 mm

DO NOT MANUFACTURE TO THIS DRAWING UNLESS IT IS MARKED "CONTROLLED"			
DO NOT SCALE THIS DRAWING DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS OTHERWISE SPECIFIED			
ONE PLACE DECIMAL	+/-0.2	ANGULAR	+/-2°
TWO PLACE DECIMAL	+/-0.1		
DRAWN BY	DATE	SCALE	THIRD ANGLE PROJECTION
AJB	03/22/11	1:2	
CUSTOMER DRAWING			

REV	ECN	REVISIONS	CHANGED BY	APPROVED BY	DATE (MM/DD/YR)
		RELEASED	AJB		05/27/11
DESCRIPTION					
LOW PROFILE SWITCH					
MATERIAL					
N/A					
DRAWING NUMBER					
S45-0026					
DRAWING SIZE					
B					

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