MID POWER
SPEC Pak®

Sealed Power For Environmental Connections

Marine | Wind Power | Lighting | Transportation | Pumps | Ground Support

Machine Tool | Industrial Automation | Motor | Solar Power | Harsh Environments

ANDERSON POWER™

Rugged and Sealed (IP68) Plugs and Receptacles

The SPEC Pak® Mid Power is rugged and environmentally sealed (IP68). It leverages APP's core Powerpole® flat wiping contact technology, offering power handling capabilities up to 80 amps at 600 volts with signal.

The SPEC Pak® Mid Power shells are highly configurable. They accept up to four Powerpole® 75 (PP75) contacts and housings. They also accept up to 8 pin and socket auxiliary contacts providing the user signal and/or sequencing options. Assembly is made easy though the use of colored Powerpole® housings which can be matched to wire colors. They will accept wire sizes ranging from 12 to 6 AWG [3.3 to 13.3 mm²]. SPEC Pak® Mid Power is highly configurable providing users with a multitude of flexible design solutions in a single interconnect.

Auxiliary contacts are not visible in the cut-a-way view.

Top of the latch is not visible from this view.
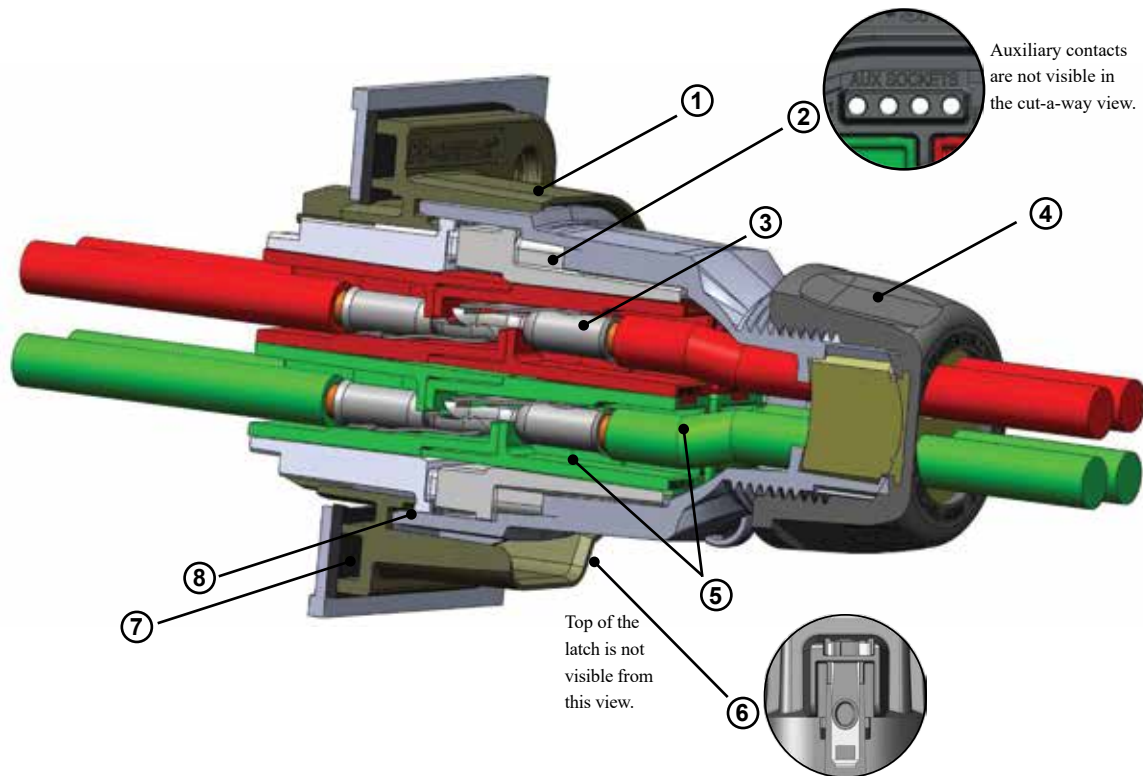
1 - Chemical & UV Resistant Ruggedized Shells
  • Wire to Wire Configurations
  • Wire to Panel Configurations

2 - Auxiliary Contacts for Signal and/or Sequencing (up to 8)

3 - Power Contacts (up to 4)

4 - Sealing Gland to Ensures (IP68) Environmental Seal

5 - Color Coded Powerpole® Housings to Match Wire Colors

6 - Stainless Steel Latches to Prevent Accidental Unmating

7 - IP68 Panel Mount Receptacle Gasket

8 - Sealing O-Ring Ensures (IP68) Environmental Seal

Specifications

	SPEC Pak® Shell	Powerpole® Power Contacts & Housings	Auxiliary Contacts [1] (PowerMod® Series)
Electrical			
Current Rating (Amperes)			
UL 1977	-	80 [2]	5
CSA (30° C Rise)	-	50 [2]	5
Voltage Rating			
UL 1977 (AC/DC)	-	600	600
Dielectric Withstanding (AC)	-	3,000	-
Contact Resistance Milliohms (average)	-	0.200 [3]	2.000 [4]
Hot Plug Amp Rating (UL 1977)			
250 Cycles at 120V	-	50 [5]	
Mechanical			
Environmental Seal			
IP rating	IP68	-	-
Submersion (UL 50E)	Pass	-	-
Wire Size	-	12 to 6 AWG	24 to 12 AWG
	-	3.3 to 13.3 mm²	0.50 to 2.5 mm²
Operating Temperature	-40° to 105° C	-20° to 105° C	-40° to 105° C
	-40° to 221° F	-4° to 221° F	-40° to 221° F
Mating Cycles (no load)			
Silver Plated Contacts	-	1,500	-
Gold Plated Contacts	-	-	1,500
Contact Retention Force	-	> 50 lbf / 222 N	-
Insertion Force	-	28 lbf	
Touch Safe (IEC 60529)	-	IP10	-
Drop Test (UL50E)	Pass	-	-
Panel Break Off (EIA 394-97)	Pass	-	-
Crush Test (EIA 364-40B)	Pass	-	-
Materials			
Shell / Housing	PC/PBT	PC	PC/PBT
Powerpole® Holder	PC/PBT	-	-
Latch	Stainless Steel	-	-
Flammability (UL 94)	V0	V0	V0
Weatherability (UL 764C)	F1	F1	F1
Contacts			
Base	-	Copper Alloy	Copper Alloy
Plating	-	Silver	Gold over Nickel

...... SPEC Pak® Shells Used With ...... (spanning header over Powerpole® Power Contacts & Housings and Auxiliary Contacts [1] (PowerMod® Series))

NOTES:

1. Integral signal holders that holds up to 8 pins and 8 sockets.

2. Based on 6 AWG.

3. Based on 6 AWG 1-1/4" distance between probes.

4. Based on 20 AWG.

5. Hot Plug testing completed using individual Powerpole® housings and contacts, not installed in SPEC Pak® shells.

c**UL**us File No. E26226   RoHS-II COMPLIANT APP or other industry tests and/or agency approvals, contact customer service.

Product Selection Guide

SPEC Pak® is a highly configurable environmentally sealed connector, that can be purchased as components in bulk for volume production, or pre-packaged as a kit. For convenience, follow the steps below to determine component or kit part numbers.

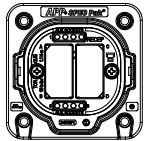## | COMPONENT PART NUMBER GUIDE (FOR COMPONENT BULK PURCHASE) |

Step 1: Select Shell	Step 2: Select Wire Protection
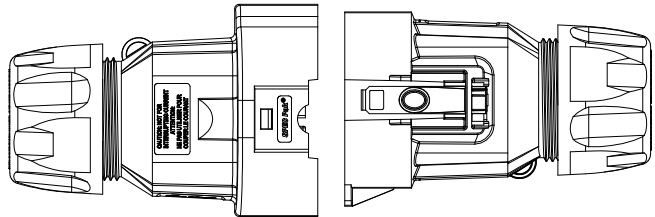
SK6-076C04
Plug

SK1-076C04
Inline Receptacle

SK2-076C04
Panel Mount Receptacle

* Select Shell Style, from page 6.

* Define:

	Number of Wires	Wire OD
Wires		
- Discrete	_____	_____
- Bundled	_____	_____

* Select wire protection that will accommodate the number of wires and outer diameter (OD) of the wire used in your application, from page 6.

* Wire protection is required for use with inline receptacles and plugs to obtain IP68 seal.

List Component Part Numbers Here:

| KIT PART NUMBER GUIDE (FOR KITTED CONNECTOR PURCHASE) |

Step 1 - (see page 6)

.... Shell ....

SPEC Pak® Series	Shell Color	Shell Style (Select One)	Dash	Shell Size	Insert Arrangment

1 = Inline Receptacle
2 = Panel Mount Receptacle
6 = Straight Plug
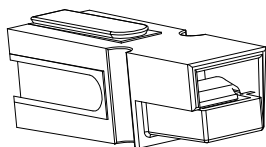9 = Receptacle Cover
9P = Plug Cover

List Kit Part Number Here:

Receptacle Kit Part Number:

__S__	__K__	_____	-	__076__	__C04__

Plug Kit Part Number:

__S__	__K__	_____	-	__076__	__C04__

Pin Auxiliary Contact

Socket Auxiliary Contact

Power Contact

* Define:

Housing Arrangement	Number of Wires	Number of Auxiliaries
- AC Single Phase	_____	_____
- AC 3 Phase	_____	_____
- DC	_____	_____
- Other	_____	_____

* Select housing arrangement colors appropriate for your AC or DC application, from page 7.

* Define:

Contacts	Number of Circuits	Wire Gauge
- Power	_____	_____
- Auxiliary	_____	_____
- Other	_____	_____

Amps (continuous): _____ Max amps at _____ volts

* Select power and/or auxiliary contacts appropriate for your wire size (AWG or mm²), from page 7.

List Component Part Numbers Here:

Step 2 - (see page 6)	Step 3 - (see page 7)	Step 4 - (see page 7)	Custom
.... Wire Protection	.. Housing Arrangement ..	.... Contacts	.... APP Content ....
Number of Holes Cable Sealing Range (Select Two) **Dash**	(Select One)	(Select One) **Dash**	

-

-

00 = None
PS = Plastic Single-hole
PM = Plastic Multi-hole

00 = None
01 - 99 = Various Gland Types
(See Page 6)
NOTE: Panel Mount Receptacle is always "00 00".

0 = Custom Configuration
A = AC Single Phase
B = AC 3 Phase, 3 Wire
C = DC Circuit, 4 Wire
Z = All Black

Contact the factory
Custom Configuration

0 = Custom Configuration
70 = 1307 Contact for #6 AWG (13.3 mm²)
71 = Please inquire for #8 AWG (8.4 mm²)
72 = 5953 Contact for #10/12 AWG (3.3 to 5.3 mm²)

_____ _____   -   _____   _____
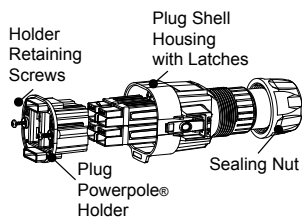
_____ _____   -   _____   _____

Ordering Information

PLUG SHELL KIT

Part Number & Description

SK6-076C04

- Plug shell
- Powerpole® holder - plug
- Powerpole® holder retaining
  screws M3.5 x 15mm
- Sealing Gland Nut
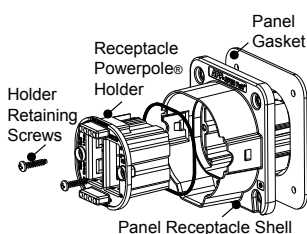
(Sealing grommet sold separately)

Holder Retaining Screws
Plug Shell Housing with Latches
Plug Powerpole® Holder
Sealing Nut

PANEL MOUNT RECEPTACLE KIT

Part Number & Description

SK2-076C04

- Panel mount receptacle shell
- Powerpole® holder - receptacle
- Panel mount receptacle gasket
- Powerpole® holder retaining
  screws M3.5 x 15mm

Receptacle Powerpole® Holder
Panel Gasket
Holder Retaining Screws
Panel Receptacle Shell

INLINE RECEPTACLE KIT

Part Number & Description

SK1-076C04

- Inline receptacle shell
- Powerpole® holder - receptacle
- Powerpole® holder retaining
  screws M3.5 x 15mm
- Sealing Gland Nut

(Sealing grommet sold separately)

Holder Retaining Screws
Inline Receptacle Shell
Receptacle Powerpole® Holder
Sealing Nut
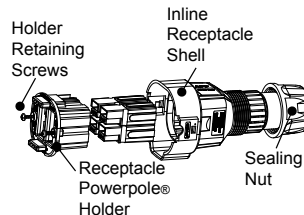
COVER KIT

Part Number & Description

SK9-076

Receptacle Cover Kit

- Cover (IP68) with lanyard

SK9P-076

Plug Cover Kit

- Cover (IP68) with lanyard

Receptacle Cover
Plug Cover with Interfacial seal
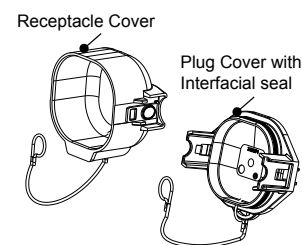
Component Replacement Parts

| Part Number	Description
115129P1	Panel Mount Receptacle Gasket
H1120P53	Powerpole holder retaining screws M3.5 x 15mm

NOTE:
Mounting Hardware (4 each M4 or #8 screws) not included.
Recommended torque for mounting hardware is 7-10 in-lbs.

| WIRE PROTECTION - CABLE GLAND |

Material	
Shell	PBT/PC
Sealing Grommet	EPDM
Flammability (UL 94)	V0
Weatherability (UL 764C)	F1
Color	Black

Mechanical	
IP Rating	IP68
Operating Temperature	
(UL 1977)	-40° to 105° C
	-40° to 221° F
Thread Type	Integrated into inline receptacle & plug shells

Torque Requirements

Hand tighten. Using a 44 mm wrench or strap wrench, tighten an additional 3/4 - 1 turn.
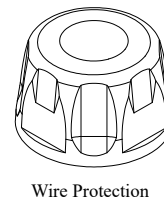
Wire Protection

Straight Plastic Single & Multi Hole Cable Gland

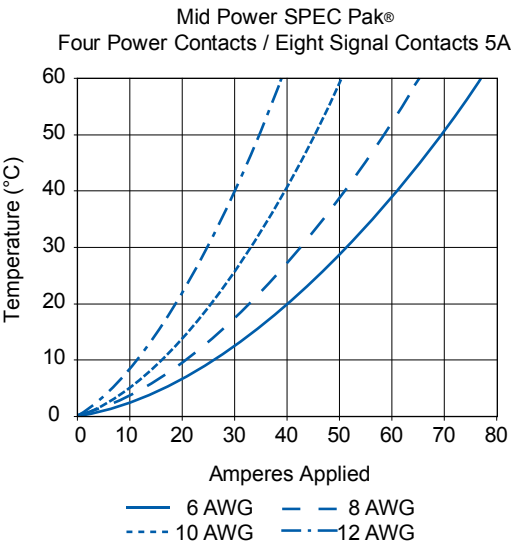| Number of Holes	Cable Range Wire Outer Diameter mm (in)	Wrench Size Sealing Nut	Protection Designation		Sealing Grommet Only		Sealing Glands (includes sealing grommet & wire protection nut)	
					----- Part Numbers -----			
Minimum Quantity					10		10	
1	18.0 - 24.0 mm (0.79" - 0.85")	44	PS	01	B02130P7	For use with SK1-076C04 & SK6-076C04	PS1T40-24X	For use with shell kit components purchased in bulk.
2	3.8 - 5.0mm (0.15" - 0.20")	44	PM	21	B02130P12		PS2T40-5X	
2	6.0 - 7.2mm (0.24" - 0.28")	44	PM	22	B02130P11		PS2T40-7X	
2	7.0 - 9.0mm (0.28" - 0.35")	44	PM	23	B02130P10		PS2T40-9X	
3	6.0 - 7.2mm (0.24" - 0.28")	44	PM	32	B02130P5		PS3T40-7X	
3	7.0 - 9.0mm (0.28" - 0.35")	44	PM	33	B02130P4		PS3T40-9X	
4	3.8 - 5.0mm (0.15" - 0.20")	44	PM	41	B02130P3		PS4T40-5X	
4	6.0 - 7.2mm (0.24" - 0.28")	44	PM	42	B02130P2		PS4T40-7X	
4	7.0 - 9.0mm (0.28" - 0.35")	44	PM	43	B02130P1		PS4T40-9X	

C04 Housing Arrangement
Configured with up to 4 PP75 Contacts - Up to 80 Amps

| Standard Housing Arrangements |

E = Empty

0	Custom Configuration

AC Single Phase

A	5916G4	5916G5
	5916G6	E

AC 3 Phase, 3 Wire

B	5916G4	5916G5
	5916G7	E

DC 2 Circuit, 4 Wire

C	5916G4	5916G4
	5916G7	5916G7

All Black

Z	5916G4	5916G4
	5916G4	5916G4

| TEMPERATURE CHART |

Mid Power SPEC Pak®
Four Power Contacts / Eight Signal Contacts 5A

X-axis: Amperes Applied (0–80)
Y-axis: Temperature (°C) (0–60)

Legend: 6 AWG, 8 AWG, 10 AWG, 12 AWG

Ordering Information

PP75 Standard Power Contacts, Signal Contacts & Housings

Description	-------- Part Number --------	
Minimum Quantity ..	1000	100 .....
Red	5916G7-BK	5916G7
Green	5916G6-BK	5916G6
Black	5916G4-BK	5916G4
White	5916G5-BK	5916G5
Blue	5916-BK	5916
Yellow	5916G15-BK	5916G15
Orange	5916G14-BK	5916G14
Gray	5916G16-BK	5916G16
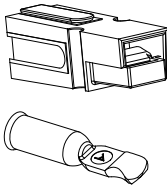
Spacer & Keying Accessory

Description	-------- Part Number --------	
Minimum Quantity	1000	100 ....
Red, Short	1399G23-BK	1399G23
Red, Long	1399G21-BK	1399G21

Short   Long
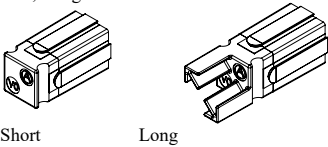
PP75 Silver Plated Wire Contacts

Type	AWG	mm²	Mating Force	-- Part Numbers --		Contact Code Designation
Minimum Quantity				1000	100	....
Individual	6	13.3	Low	1307-BK	1307	70 ....
Individual	8	8.4	Low	Please inquire		71 ....
Individual	12 to 10	3.3 to 5.3	Low	5953-BK	5953	72 ....

Hand Tool	Pneumatic		
	Tool	Die	Locator
For use with 6 AWG			
1309G4	1387G1	1388G6	1389G6
For use with 12/10 AWG			
1309G4	1387G1	1388G7	1389G6

Auxiliary Contacts (PowerMod® series)

Type	AWG	mm²	---- Part Number ---	
Minimum Quantity…...................			500	50 .....
Standard Length 7.7mm				
Pin	24 to 20	0.50 to 0.75	PM16P2024S30	PM16P2024S30-50
Pin	20 to 18	0.75 to 1.00	PM16P1620S30	PM16P1620S30-50
Pin	16 to 14	1.00 to 1.5	PM16P1416S30	PM16P1416S30-50
Pin	12	2.50	PM16P12S30	PM16P12S30-50
Pre-Mate 9.3mm				
Pin	24 to 20	0.50 to 0.75	PM16P2024A30	PM16P2024A30-50
Pin	20 to 18	0.75 to 1.00	PM16P1620A30	PM16P1620A30-50
Pin	16 to 14	1.00 to 1.5	PM16P1416A30	PM16P1416A30-50
Pin	12	2.50	PM16P12A30	PM16P12A30-50
Post-Mate 6.4mm				
Pin	24 to 20	0.50 to 0.75	PM16P2024C30	PM16P2024C30-50
Pin	20 to 18	0.75 to 1.00	PM16P1620C30	PM16P1620C30-50
Pin	16 to 14	1.00 to 1.5	PM16P1416C30	PM16P1416C30-50
Pin	12	2.50	PM16P12C30	PM16P12C30-50
--				
Socket	24 to 20	0.25 to 0.50	PM16S2024S32	PM16S2024S32-50
Socket	20 to 16	0.50 to 1.30	PM16S1620S32	PM16S1620S32-50
Socket	16 to 14	1.30 to 2.10	PM16S1416S32	PM16S1416S32-50
Socket	12	2.5	PM16S12S32	PM16S12S32-50

Hand Tool	Hand		Pnuematic	
	Tool	Locator	Tool	Locator
For use with pins				
PM1000G1	TM0001	TL0001	TP0001	TL0001
For use with sockets				
PM1000G1	TM0001	TL0002	TP0002	TL0002

Dimensions

| PLUG MID POWER FOR PP75 HOUSINGS |

Top View

[3.73]
94.7

Front View

[2.97]
75.5

[2.47]
62.8

Side View

[3.09]
99.0

Mated View

[4.4] 111.0
Mated Length to
Panel Receptacle
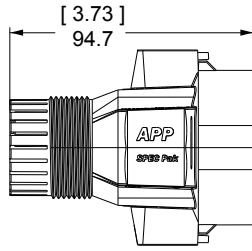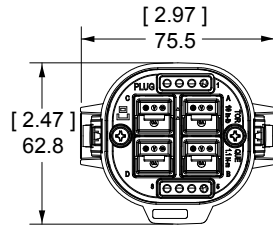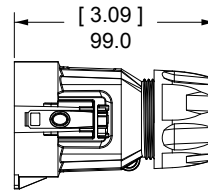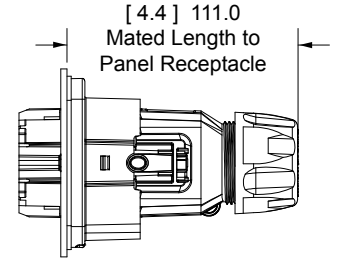
| PANEL MOUNT RECEPTACLE MID-POWER FOR PP75 |

Panel Cut Out

[2.36]
60.0

[2.36]
60.0

Front View

[3.19]
81.0

[3.19]
81.0

Side View

[1.31]
33.2

[0.98]
25.0

Mated View

[4.4] 111.0
Mated Length to
Panel Receptacle
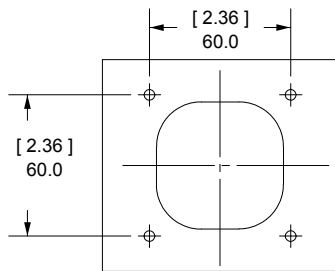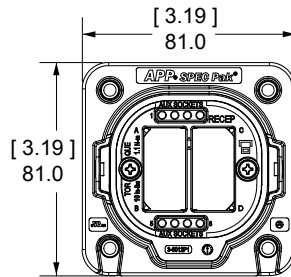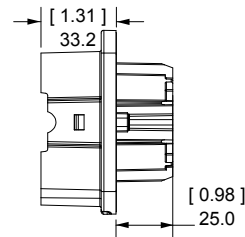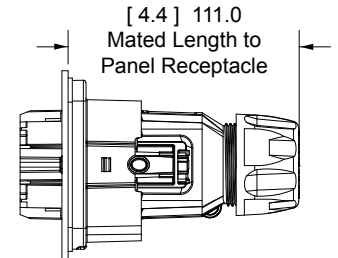
| INLINE RECEPTACLE MID-POWER FOR PP75 |

Top View

[3.76]
95.5

Front View

[2.83]
71.8

[2.70]
68.6

Side View

[3.9]
100.0

Mated View

[6.9] 175.0
Mated Length to Plug
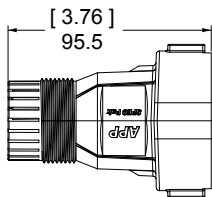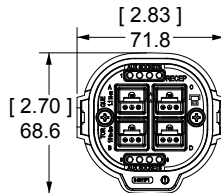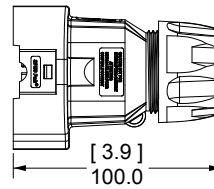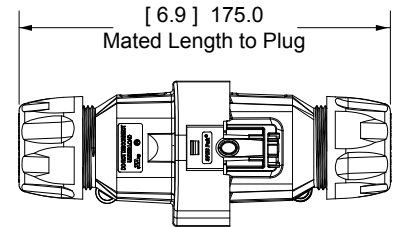
| PLUG COVER KIT |

Front View

[3.03]
77.0

[2.52]
63.9

Side View

[1.10]
28.0
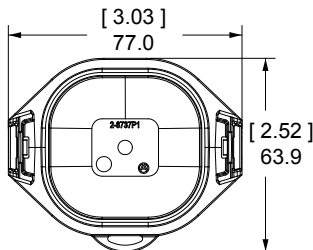
| RECEPTACLE COVER KIT |

Front View

[2.79]
70.8

[2.47]
62.8

Side View

[1.40]
35.5

REV 4