

# Waterproof Power

## Data

### Materials and finish

**Shell:** steel, dimples on plug

**Insulator:** PBT thermoplastic, 30% glass filled,  
UL 94V-0 rated, black color

**Watertight frame:** PBT GF, UL 94V-0, black color

**O-Ring:** Silicone

**Epoxy sealant:** Epoxy

**High power contact:** Copper alloy

### Electrical characteristics

**High power contact current rating:** 10, 20, 30 and 40 A

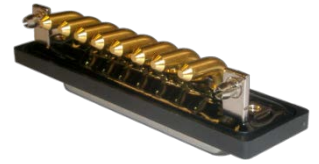
**High power contact resistance:** 1.0 mΩ max.

**Dielectric withstanding voltage:** 1000 V AC (for 1 minute)

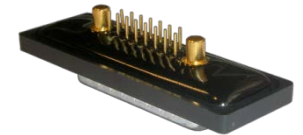
**Insulation resistance:** 5000 MΩ min.

**Temperature rating:** -25°C ~ +85°C

**Degree of protection:** IP67 according to IEC60529



Power 90°

















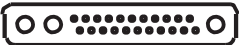

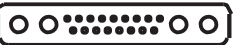



Power Straight



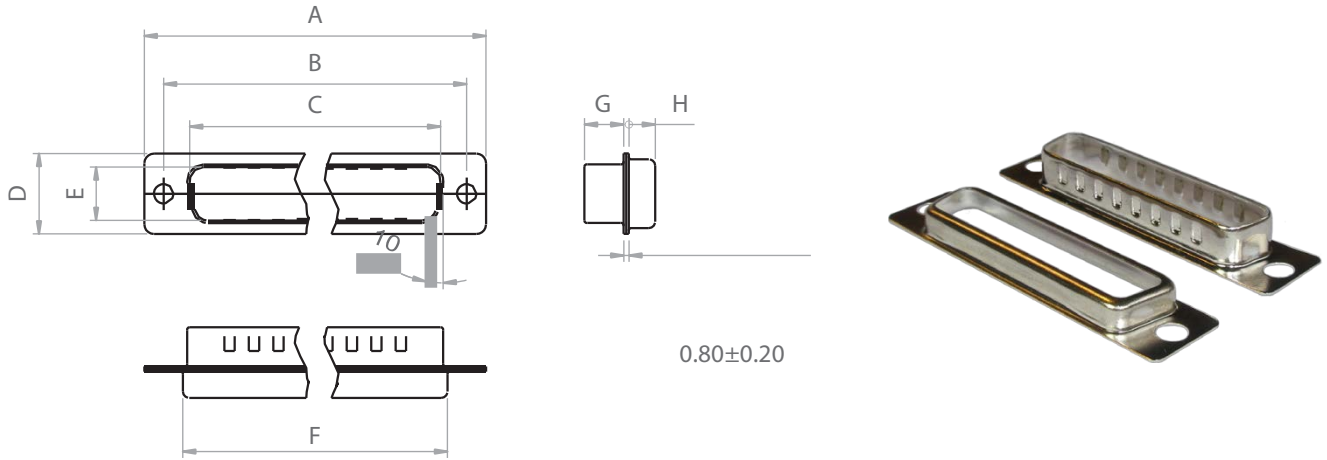
Power Solder

## Contact Variants

SHELL SIZE	HOUSING TYPE			
9	 2WK2(MALE)	 2WK2(FEMALE)	 2W2	 5W1
15	 3WK3(FEMALE)	 3WK3(MALE)	 3W3	 7W2
25	 5W5	 9W4	 13W3	
		 17W2	 21W1	
37	 8W8	 13W6	 17W5	
	 25W3	 27W2	 21W4	
	 7W7			

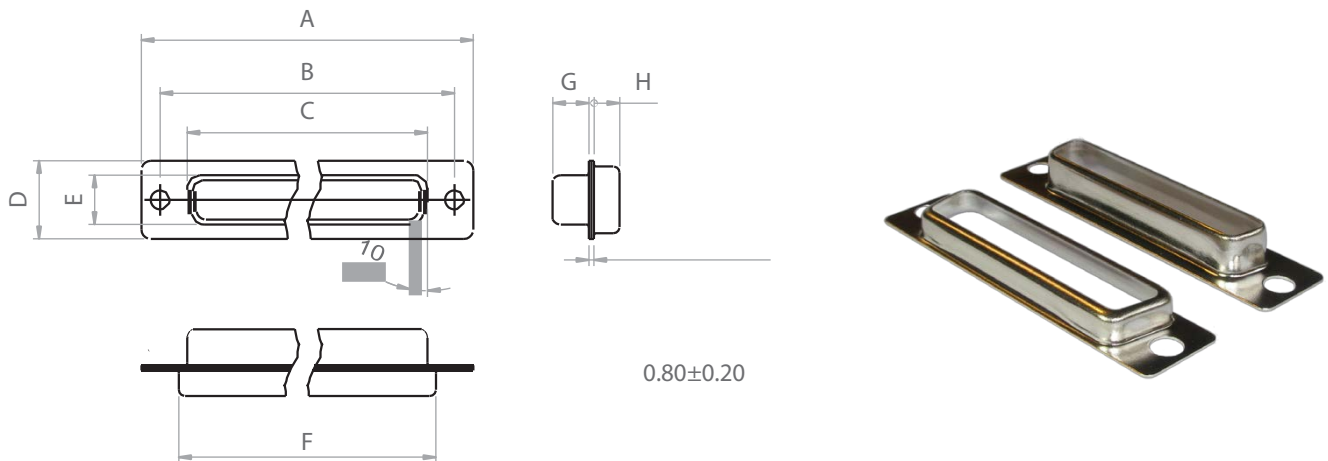
# Standard Shell Assembly

**MALE SHELL** *Note: This male shell is used for all the male connectors*



SHELL SIZE	A±0.20mm	B±0.15mm	C±0.20mm	D±0.20mm	E±0.20mm	F±0.20mm	G±0.20mm	H±0.15mm
9	30.8	25	16.9	12.5	8.3	19.25	6.1	4.1
15	39.2	33.3	25.25	12.5	8.3	27.7	6.1	4.1
25	53.05	47.05	38.95	12.5	8.3	41.2	6.1	4.1
37	69.4	63.5	55.4	12.5	8.3	57.5	6.1	4.1
50	67	61	52.8	15.3	11.15	55	6.1	4.1

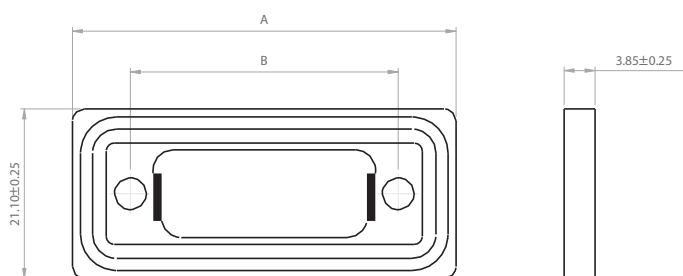
**FEMALE SHELL** *Note: This female shell is used for all the female connectors*



SHELL SIZE	A±0.20mm	B±0.15mm	C±0.20mm	D±0.20mm	E±0.20mm	F±0.20mm	G±0.20mm	H±0.15mm
9	30.8	25	16.3	12.5	7.9	19.25	5.8	4.1
15	39.2	33.3	24.6	12.5	7.9	27.7	5.8	4.1
25	53.05	47.05	38.4	12.5	7.9	41.2	5.8	4.1
37	69.4	63.5	54.8	12.5	7.9	57.5	5.8	4.1
50	67	61	52.2	15.3	10.9	55	6	4.1

# Watertight Frame

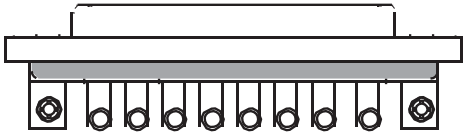
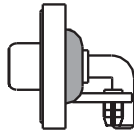
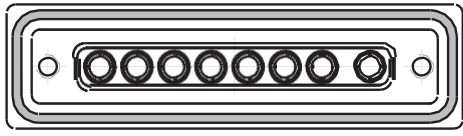
## STANDARD FRAME



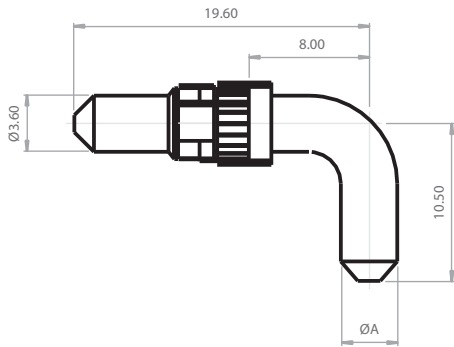
SHELL SIZE	A±0.25mm	B±0.25mm
9	39.2	24.8
15	47.7	33.3
25	61.2	46.8
37	77.5	63.1

# Waterproof Power

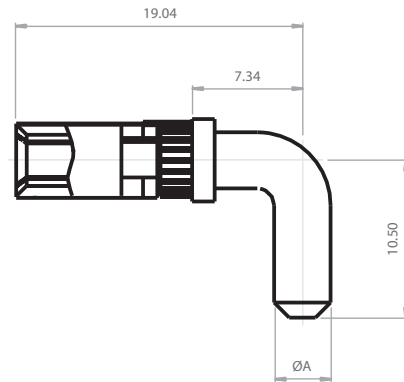
## Power 90° Connector



## Power 90° Contacts MALE



## FEMALE

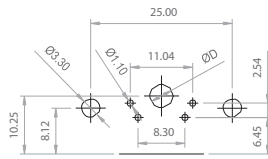


Current Rating	Dimension (mm) ØA
10A	1.7
20A	2.8
30A	3.2
40A	3.75

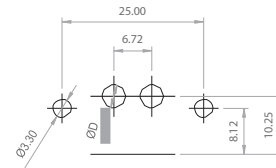
# Waterproof Power

## Power 90° Connector PCB Layout

Shell Size 9

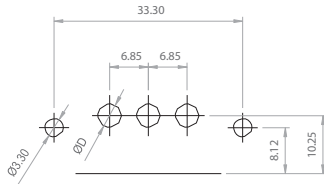


5W1

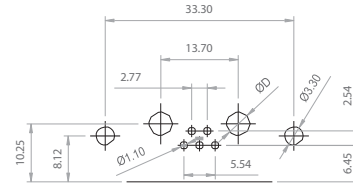


2W2/2WK2

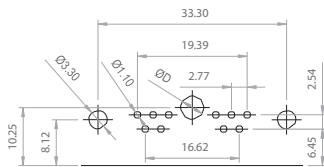
Shell Size 15



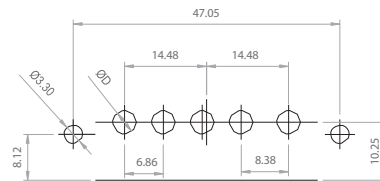
3W3/3WK3



7W2

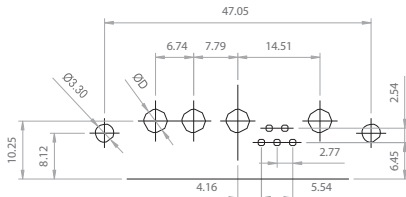


11W1

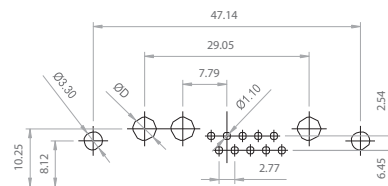


5W5

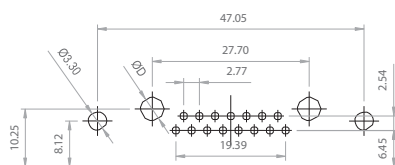
Shell Size 25



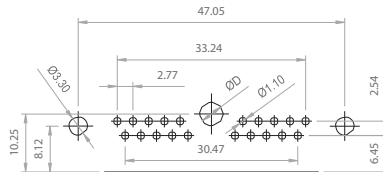
9W4



13W3

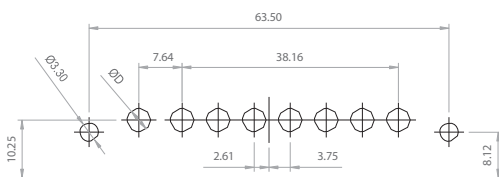


17W2

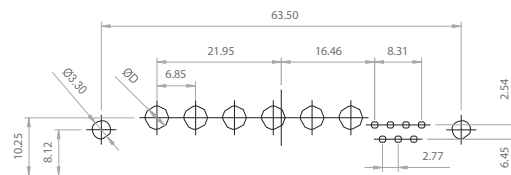


21W1

Shell Size 37



8W8

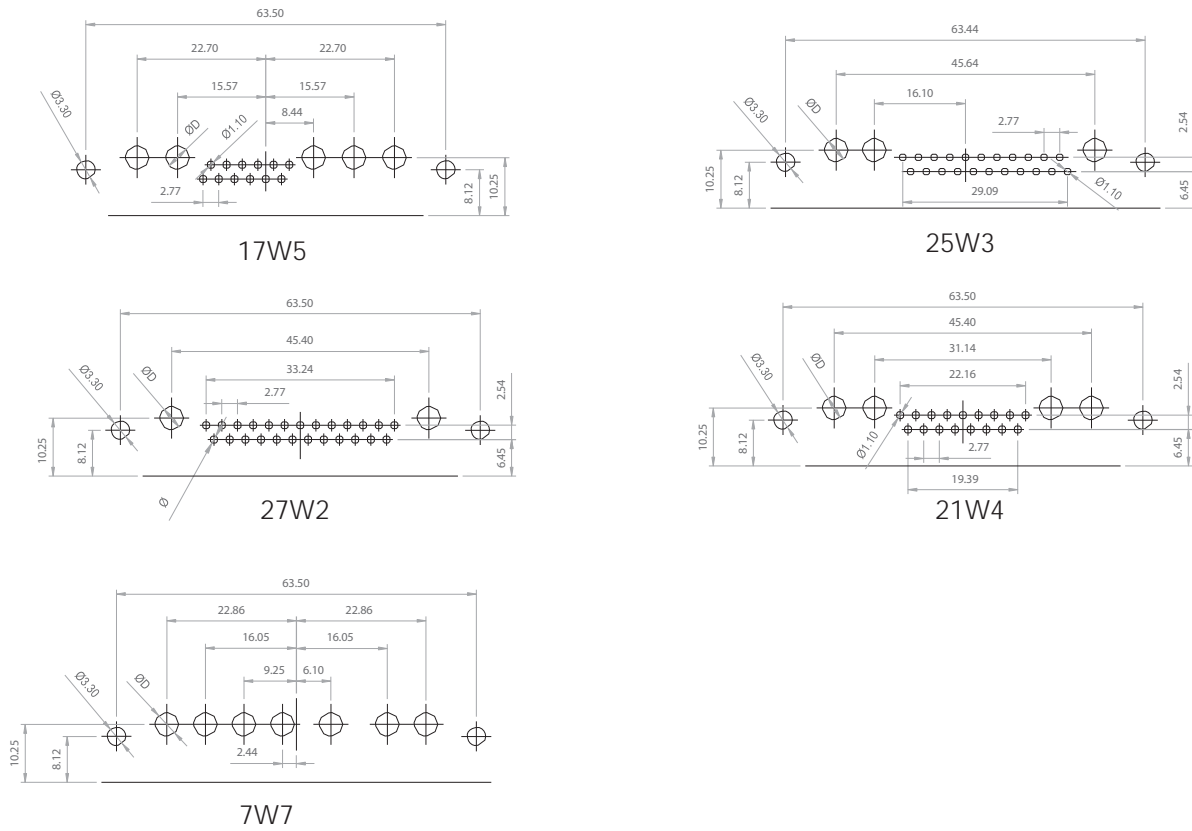


13W6

# Waterproof Power

## Power 90° Connector PCB Layout

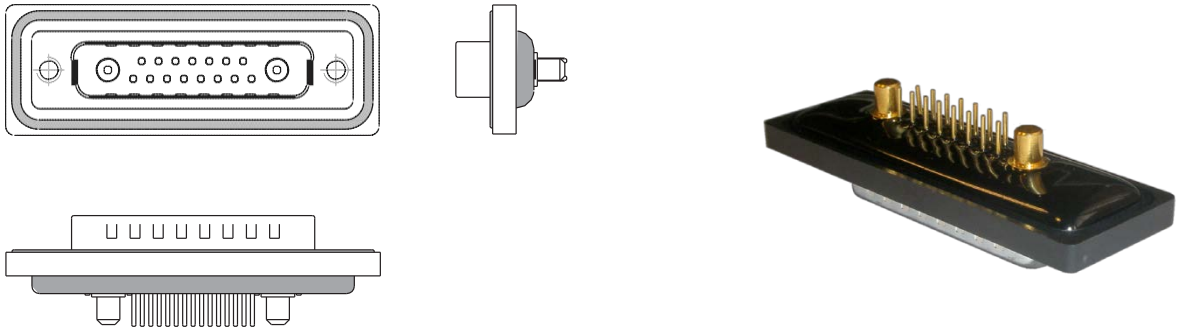
Shell Size 37



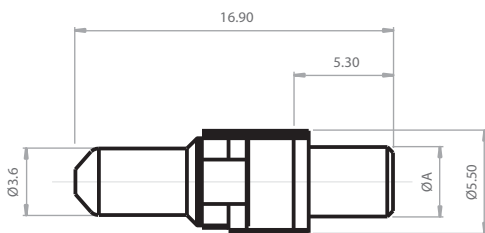
Current Rating	10A	20A	30A	40A
D	2.2	3.3	3.7	4.2

# Waterproof Power

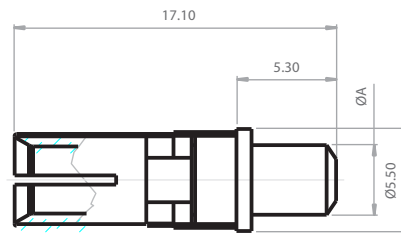
## Power Straight Connector



## Power Straight Contacts MALE



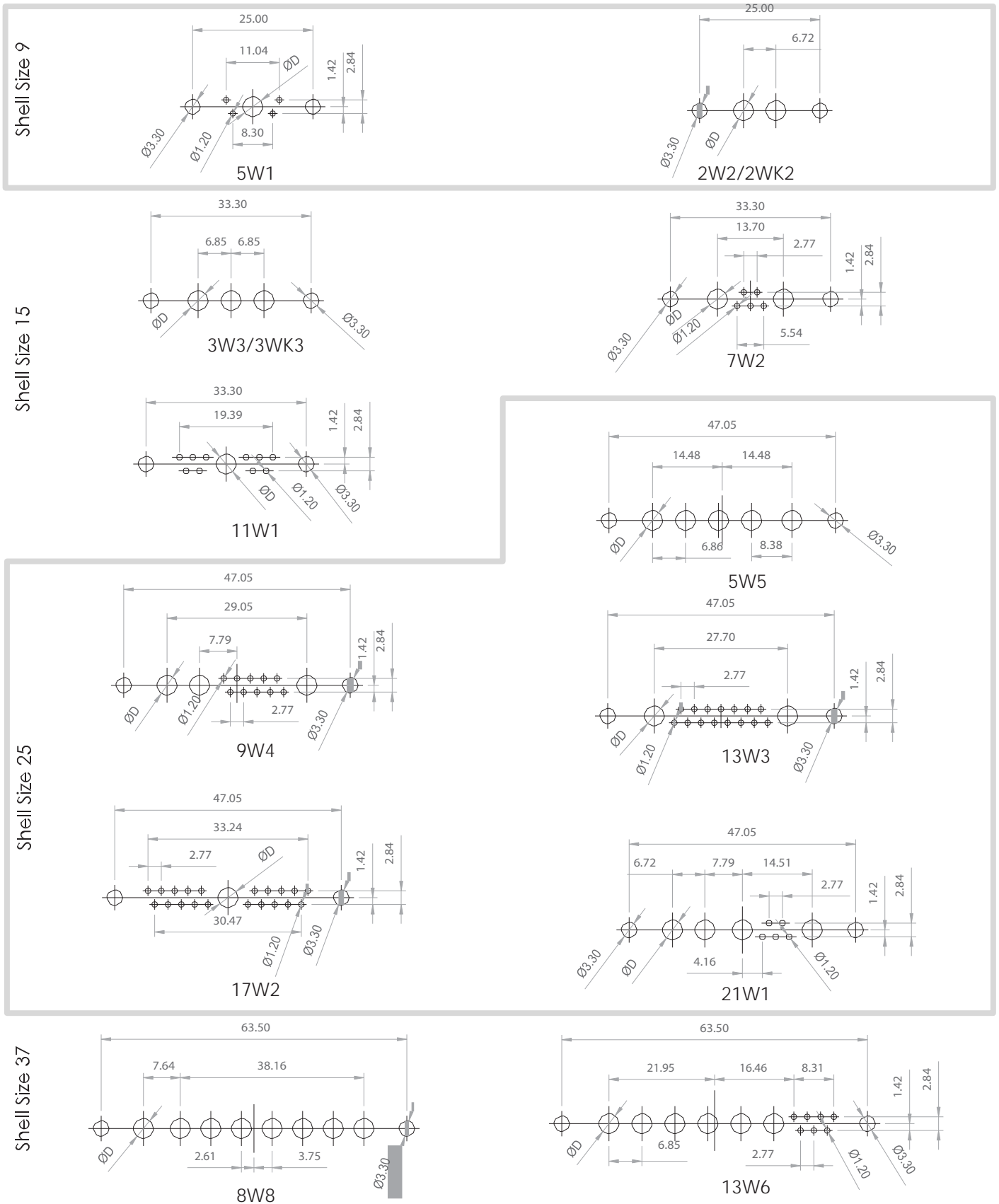
## FEMALE



Current Rating	Dimension (mm) ØA
10A	1.7
20A	2.8
30A	3.2
40A	3.75

# Waterproof Power

## Power Straight Connector PCB Layout

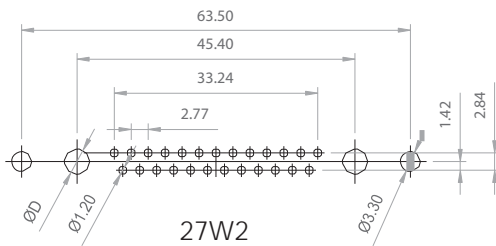
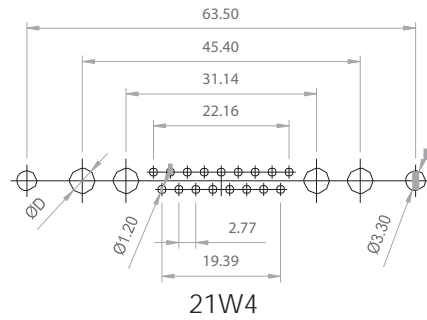
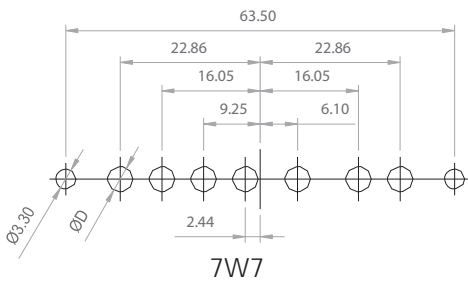
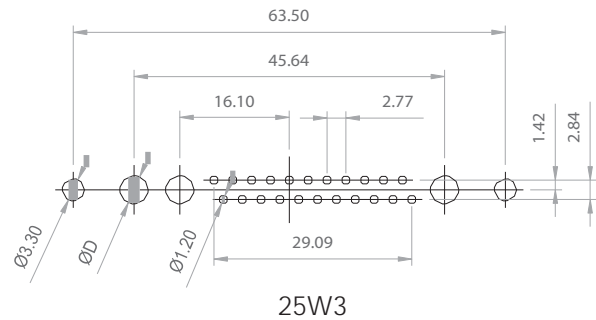
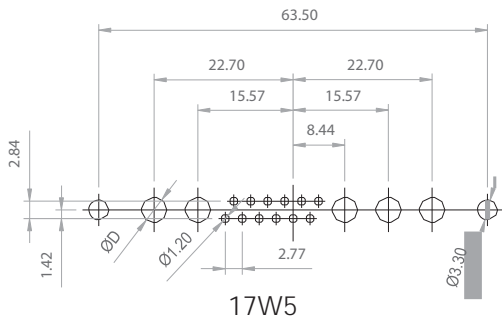




# Waterproof Power

## Power Straight Connector PCB Layout

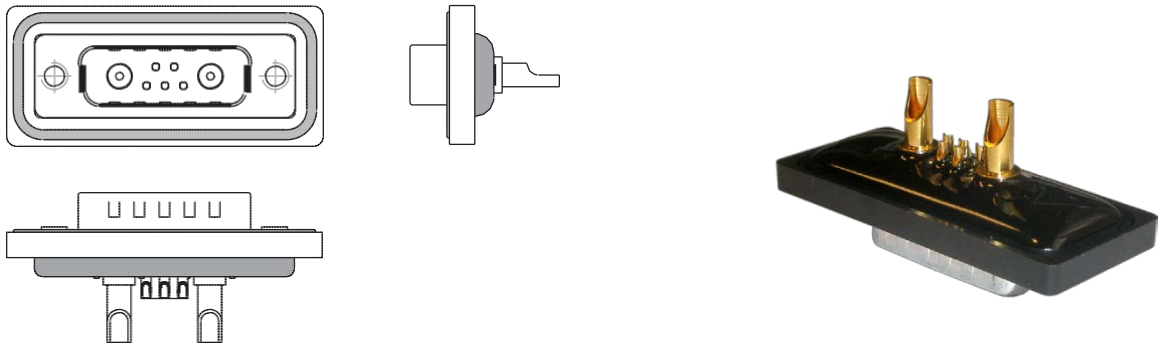
Shell Size 37



Current Rating	10A	20A	30A	40A
D	2.2	3.3	3.7	4.2

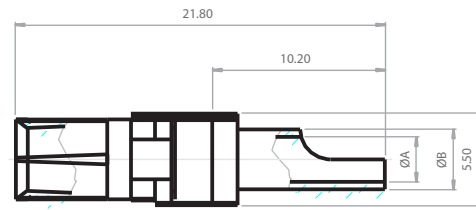
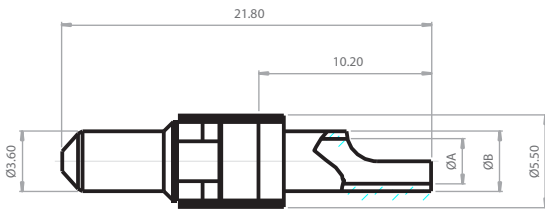
# Waterproof Power

## Power Solder Connector



## Power Solder Contacts MALE

## FEMALE



Current Rating	Dimension (mm) ØA	Dimension (mm) ØB
10A	1.7	2.5
20A	2.7	3.6
30A	3.5	4.4
40A	4.6	5.5