

IP 68 Waterproof Series

Our IP 68 Waterproof series, to be derived from RF hardware requiring high frequency signal transmission in harsh environment. The Unique sealing technology ensures high frequency signal which will not be affected by external environment, and maintains the stability of the transmission quality.

They are suitable for hardware in outdoor, waterproof, higher UV Protection. Meanwhile, they can be successfully applied to different kinds of solutions according to market demand:

- **Water tank content / Water level monitoring, Water meter, Electric meter, and Pollution prevention monitoring programmes.**
- **Renewable energy power transmission projects**
- **Energy conservation managements**
- **Indoor and outdoor solutions in LED market**
- **Industrial Automation testing and monitoring programmes**
- **High-speed broadband transmission and Telecom system integration solutions**
- **Technology development solutions in severe environments based on communication industries.**
- **The wild animals and plants tracking and monitoring programmes**

With improving design philosophy and innovative concept, EnterTec designs two different types of coaxial assemblies, which can be used properly under harsh conditions in severe environments.

There are Panel Type and Quick Type with connectors of SMA/ SMB, impedance of 50 & 75 Ohm for Customized Selections.

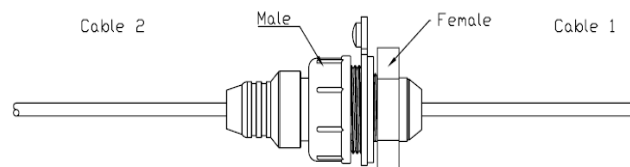
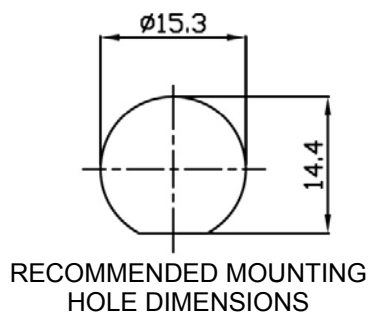
Panel type



IP 68 Waterproof / SMB(F Contact) S/T Plug / RG-174 /
SMB(M Contact) S/T Jack , L=1000mm



IP 68 Waterproof / SMA(F) S/T Jack / 1.32mm / U.FL ,
L=90mm



Panel Type: 2 cables mated

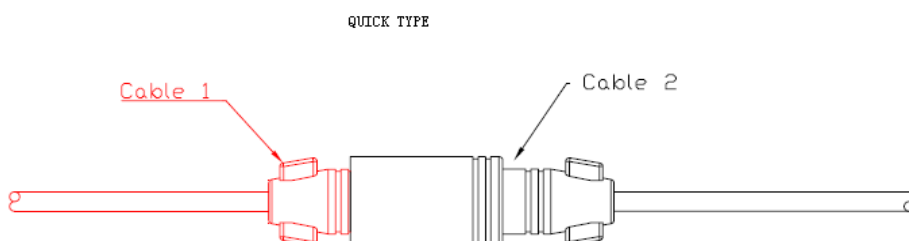
Quick type



IP 68 Waterproof Quick Type / SMA(F) S/T Jack / RG-316 / Strip&Tin , L=500mm



IP 68 Waterproof Quick Type / Quick SMA(M) S/T Plug / RG-316 / Strip&Tin , L=1000mm



Quick Type: 2 cables mated

Product Specifications

SMA interface

Material/ Finish:

	Material	Finish
Connector Body	Brass per(QQ-B-636 or JIS-C3604B)	Nickel or gold plating
	Stainless steel per(QQ-S-764 class 303)	Passivated
Center contact male	Brass per(QQ-B-626 or JIS-C3604B)	Gold plating
Center contact female	Beryllium copper per(QQ-C-530 or JIS-C 1730)	Gold plating
Insulator	PTFE	None
Crimp ferrule	Annealed Copper	Same as body
Gasket	Silicone rubber	None

Electrical:

Nominal impedance	50Ω
Frequency up to	6GHz
VSWR	1.10+0.01×f GHz S/T connector typical
	1.2+0.015×f GHz R/A connector typical
Working voltage	335 Volts rms.
Dielectric withstanding	500 Volts rms.
Insulation resistance	5000 MΩmin.
Contact resistance	Center conductor 3.0 MΩ
	Outer conductor 2.0 MΩ

Mechanical & Environmental:

Mating	1/4"-36 UNS Thread coupling
Cable retention	20 lbs typical
Durability	≥ 500 cycles
Coupling nut retention	≥ 40 lbs
Temperature range	-65°C to +165°C
Vibration	Per Mil-STD-202 method 204 Test Condition D
Shock	Per Mil-STD-202 method 213 Test Condition I
Corrosion	Per Mil-STD-202 method 101 Test Condition B

SMB interface

Material/ Finish:

	Material	Finish
Connector body	Brass per(QQ-B-626 or JIS-C3604B)	Gold plating
Center contact male	Brass per(QQ-B-626 or JIS-C3604B)	Gold plating
Center contact female	Beryllium copper per(QQ-C-530 or JIS-C 1730)	Gold plating
Insulator	PTFE	None
Crimp ferrule	Annealed copper	Same as body

Electrical:

Nominal impedance	50Ω/75Ω
Frequency up to	4.0GHz(50Ω)/2.0GHz(75Ω)
VSWER	1.25+0.05*f GHz
Working voltage	250 Volts rms.
Dielectric withstanding	750 Volts rms.
Insulation resistance	1000 MΩmin.
Contact resistance	Center conductor 6.0 MΩ
	Outer conductor 1.5 MΩ

Mechanical & Environmental:

Mating	Snap on coupling
Cable retention	8 lbs typical
Engage fore	6.0 lbs MAX.
Disengage force	1.0 lbs MIN.
Durability	≥ 500 cycles
Temperature range	PTFE -55°C to +155°C
Vibration	Per Mil-STD-202 method 204 Test Condition D
Shock	Per Mil-STD-202 method 213 Test Condition I
Corrosion	Per Mil-STD-202 method 101 Test Condition B

Connector types for cables selection guide

Connector	Cable OD	P/N	Connector	Cable OD	P/N
SMA (F)	0.81	05015103	SMA (F) RP	0.81	05014003
	1.13	05015104		1.13	05014004
	1.32	05015105		1.32	05014005
	1.37	05015106		1.37	05014006
	1.48	05015107		1.48	05014007
	178	05015109		178	05014009
	174	05015113		174	05014013
QUICK SMA (F)	0.81	05360303	SMB (F) 50Ω	0.81	10050303
	1.13	05360304		1.13	10050304
	1.32	05360305		1.32	10050305
	1.37	05360306		1.37	10050306
	1.48	05360307		1.48	10050307
	178	05360309		178	10050309
QUICK SMA (M)	0.81	10019103	SMB (M) 50Ω	174	10050313
	1.13	10019104		0.81	10050103
	1.32	10019105		1.13	10050104
	1.37	10019106		1.32	10050105
	1.48	10019107		1.37	10050106
	178	10019109		1.48	10050107
	174	10019113		178	10050109
QUICK SMA (F) RP	0.81	05360403	SMB (F) 75Ω	174	10050113
	1.13	05360404		1.32	10050349
	1.32	05360405		1.37	10050365
	1.37	05360406		1.48	10050308
	1.48	05360407		179	10050310
	178	05360409	SMB (M) 75Ω	1.32	10050149
	174			1.37	10050165
QUICK SMA (M) RP	0.81	10019203		1.48	10050108
	1.13	10019204		179	10050110
	1.32	10019205			
	1.37	10019206			
	1.48	10019207			
	178	10019209			

How to Specify IP 68 Waterproof Cable Assembly

Dimensions of IP 68 waterproof Series assembly products should be made as indicated below.

1. For Panel or Quick type(see specs above mentioned)

2. Waterproof for both ends



3. Waterproof for single end



New IP 68 waterproof production

GSM , GPRS , Wi-Fi Antenna

