PRODUCT SPECIFICATION
108 – 61025

JPT CONNECTOR
(F.T.P.S 3P, MAP SENSOR 4P)

1. Scope :

1.1 Contents

This specification covers the requirements for product performance, test methods and quality assurance Provisions of .JPT TYPE (P/N 368161, 368162)
This connector was designed to be able to apply JUNIOR POWER TIMER (929941, 929939, 929937, 828904, 828905, 368037) that is crimped by rubber seal with CAVITY PLUG that block non used circuit.
The mating part has to meet the dimension of indicated on BOSCH PART NUMBER (Y280 A62 566).

1.2 Inspection

The inspection of those products has to comply with procedure on the standard of 109 series that is AMP TEST.
All inspections have to be carried out with the adaptable plan of inspection and drawing of product.

				ORG H.S.BAE	AMP | AMP MFG KOREA		
				CHK J.K.SONG			
				APP C.S.LEE	NO 108 – 61025	REV A	LOC DS
A	REVISED(RD97 - 154)		28/JUL '97				
O	RELEASED(RD97 - 037)		8/01 '96	PAGE 1 OF 5	TITLE JPT CONNECTOR(FTPS 3P, MAP SENSOR 4P)		
LTR	REVISION RECORD	APP	DATE				

2. Applicable Documents :

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, the specification shall take precedence.

2.1 AMP Specification :

A. 109-1 : Test Specification, General Requirements for Test Methods
B. 109 series : Test Specification on “Testing method and procedure outline”
C. 114-18018 : Application Specification for single wire sealed contact systems.

2.2 The other standards :

A. IEC S29
B. ES91500 : general standard of HMC CONNECTOR

3. General requirements :

3.1 Design and Construction:

Product shall be of the design, Construction and physical dimensions specified in the applicable Product drawing.

3.2 Materials :

A. Housing : Poly Amide 66 with glass fiber 15 (PA66-GF15)
B. Seal : silicone rubber

3.3 Performance and Test Descriptions:

The product shall be designed to meet the electrical, mechanical and environmental performance requirements Specified table 1. All tests shall be performed to 109-1 AMP testing standard in the room temperature, unless otherwise specified.

3.4 Test Requirements and Procedures Summary :

Para.	Test Item	Requirements	Procedures
3.4.1	Confirmation of Product	Product shall be conforming to the requirements of applicable Product drawing and AMP specification 114-18018.	Visually, dimensionally and Functionally inspected per Applicable quality Inspection plan.
		Electrical Requirements	
3.4.2	Voltage drop (Specified Current)	Test (A) Resistance Current mV/A(MAX) 1 Initial : 3 After duration : 10	AMP Spec. 109-5306
3.4.3	Dielectric Strength	No breakage outside and Flash-over on energized AC 1000 V/MIN	AMP Spec. 109-5301
	Contact resistance		
3.4.4	Insulation Resistance	Up to 100 MΩ on DC 500V/MIN	AMP. 109-5302
3.4.5	Temperature Rising	30℃ Max. (initial) 50℃ Max. (on energized power)	AMP Spec. 109-5310
		Mechanical Requirements	
3.4.7	Vibration	No electrical discontinuity greater than 1 μs. Shall occur. 10mΩ Max. (Final) 10m V/A Max. (Final)	AMP Spec. 109-5202
3.4.8	Physical Shock	The instant shourt circuit is must be below 10 μ sec Vibration Direction: X,Y,Z 3hrs Vibration Aceleration: 10G	AMP Spec. 109-5202
3.4.9	Connector mating Force	4P: 9kg/f Max. 3P: 7kg/f Max.	Operation Speed: 25mm / min. AMP Spec. 109-5206
3.4.10	Connector un-mating Force	4P: 2~8kg/f Max. 3P: 2~6kg/f Max.	Operation Speed : 25mm / min. without locking structure AMP Spec. 109-5206
3.4.11	Terminal disengage force	Up to 8kg/f	For pulling the terminal out of HSG Operation Speed: 25mm / min. AMP Spec. 109-5210
3.4.12	Connector Locking Strength	10kg/f Min	For pulling HSG out of counterpart forcibly Operation Speed : 25mm / min AMP Spec. 109-50
3.4.13	Humidity-temperature Cycling	Voltage dip 10mV/A Max.	Repeat 5 times below method Carry out mated connector -30 ℃ ~125 ℃ on 95% RH AMP Spec. 109-23
3.4.14	Humidity, Steady State	Contact resistance 10 mΩ Max. Current Leakage 3 mA Max.	R.H. 60℃ 48 hours : AMP Spec. 109-5105
3.4.15	Sealing test	must withstand the air pressure of 0.5Kgf/㎠) up to 30 seconds	Immerse mated connector under 30 ㎝ of water then increase pressure to 0.5Kgf/㎠

Para.	Test Item	Requirements	Procedures
3.4.16	Heat-resistance test	10V/A Max.	120℃ 120hrs AMP Spec. 109-5104

3.5 Product Qualification Test Sequence

Test Items	Test Group(a)								
	1	2	3	4	5	6	7	8	9
	Test Sequence ©								
Confirmation of Product	1,5	1,5	1,5	1,4	1,3	1,8	1,5	1,5	1
Voltage drop (Specified Current)	2,4	2,4	2,4	3				2,4	
Dielectric Strength				2					
Contact resistance							2,4		
Insulation Resistance									
Temperature Rising					2				
Vibration	3								
Physical Shock								3	
Connector mating Force						4			
Connector un-mating force						5			
Terminal engage force						2			
Terminal disengage force						6			
Connector Locking Strength						7			
Humidity-temperature Cycling			3						
Humidity, Steady State							3		
Sealing test									2
Heat-resistance test		3							