PRODUCT SPECIFICATION

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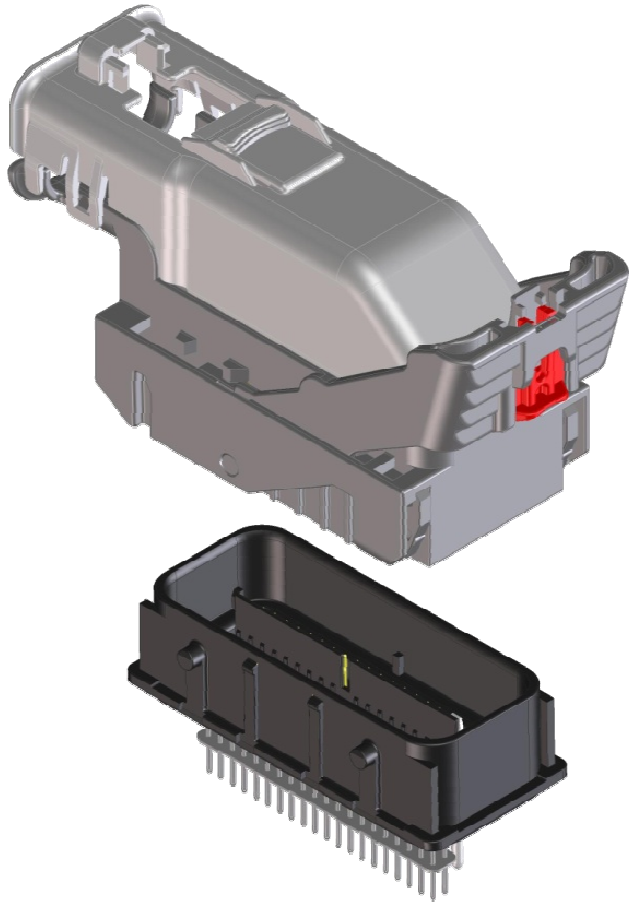
1.0 SCOPE

This specification covers the sealed 2.54 mm (0.10”) centerline pitch quad-row MX123 connector product line (wire to board) utilizing a 0.64 mm system terminated with 22 AWG to 18 AWG wire and ISO 0.35mm² to 1.0mm² wire using crimp technology & hybrid versions utilizing:

i. 2.80 mm system terminated with 14 AWG wire.
ii. 6.35 mm system terminated with 6.0mm² ISO wire.

For information not covered in the product specification, please refer to appropriate Sales Drawing (SD) or Application Specification AS-34566-001

2.0 PRODUCT DESCRIPTION



2.1 PRODUCT NAME AND PART NUMBER

				Mates/ Assembles To:			
Description		Document #	Series #	Description		Document #	Series #
80 ckt	Receptacle Connector	SD - 34566 - 001	34566	80 ckt	Direct Connect Interface	12582682/ 12642695	31387
73 ckt	Receptacle Connector	SD - 34566 - 001	34566	73 ckt	Direct Connect Interface	12582682/ 12642695	31387
66 ckt (to be validated)	Receptacle Connector	SD - 34566 - 001	34822	66 ckt	Direct Connect Interface	12582682/ 12642695	31387
56 ckt	Receptacle Connector	SD - 34576 - 001	34576	56 ckt	Direct Connect Interface	12582683/ 12642694	31386
18 ckt (to be validated)	Receptacle Connector	SD - 34576 - 001	34851	18 ckt	Direct Connect Interface	12582683/ 12642694	34852

Refer Document# for applicable Part Numbers.

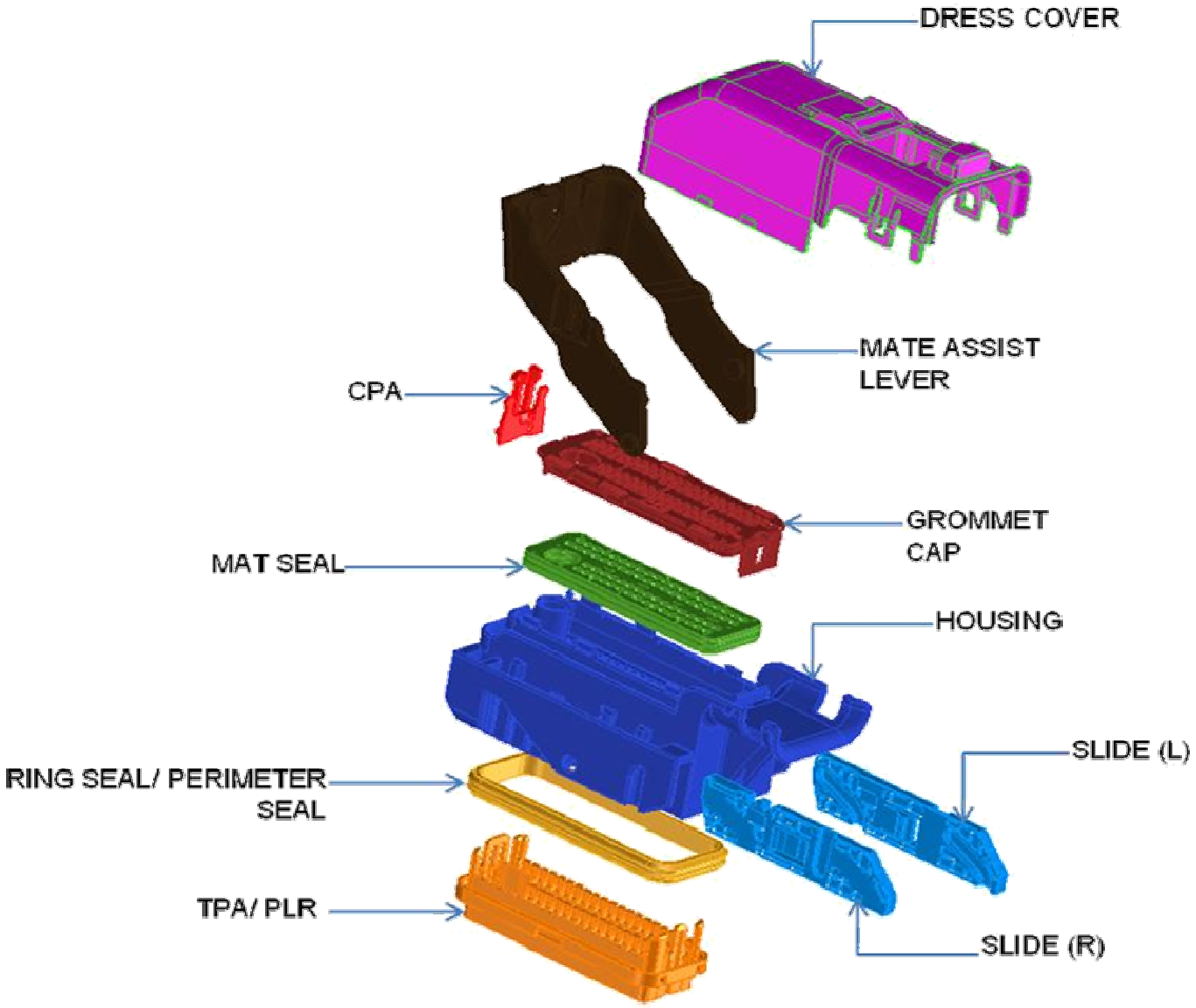
See PK-31300-019 for Packaging related information.

For printed circuit board, solder etc. information, please see mating series # 31387

2.2 DIMENSIONS, MATERIALS AND MARKINGS

All dimensions, materials and ID locations can be found on the applicable Document # in the above table.

COMPONENTS OF THE MX123 HARNESS CONNECTOR ASSEMBLY



COMPONENT	MATERIAL
HOUSING	30% glass filled SPS/nylon blend
TPA/ PLR	30% glass filled SPS/nylon blend
GROMMET CAP	30% glass filled SPS/nylon blend
SEALS (MAT SEAL & RING SEAL)	Inherently lubricated silicone
SLIDES (L & R)	30% glass filled PBT w/ PTFE
MATE ASSIST LEVER	30% glass filled SPS/nylon blend
CPA	10% glass filled PPE/ nylon blend

2.3APPLICABLE/ INTEGRAL COMPONENTS:

Part Number		Sales Drawing	Plating	Description	Packaging Drawing #
D-Wind Left Payoff	B-Wind Right Payoff				
33467-0004	33467-0003	SD-33468-001	Au	22 AWG	SEE TERMINAL PRODUCT SPECIFICATION PS-33468-001
33467-0021	33467-0022	SD-33468-002	Au	0.35 mm^2	
33467-0006	33467-0005	SD-33468-001	Au	18-20 AWG	
33467-0023	33467-0024	SD-33468-002	Au	0.50 - 0.75 mm^2	
34736-1001	34736-2001	SD-33468-001	Ag	22 AWG	
34736-0025	34736-0026	SD-33468-002	Ag	0.35 mm^2	
34736-1002	34736-2002	SD-33468-001	Ag	18-20 AWG	
34736-0027	34736-0028	SD-33468-002	Ag	0.50 - 0.75 mm^2	
7116-4152-02 (YAZAKI)		Ford: 97BG-14474-BDA	Sn	14 AWG	www.yazaki.com
F385900		Ford: XL3T-11474-BA	Sn/ Ag	6.0 mm^2	www.fci.com
34565-0003		SD-34565-001	-	Dress Cover 66/73/80 CKT	PK-31300-180
34575-0003		SD-34575-001	-	Dress Cover 49/56/18 CKT	

2.4ACCESSORIES / AUXILIARY COMPONENTS:

Description	Part Number	Material	Document #	Packaging Drawing #
MX64Cavity Seal Plug	34586 – 0001	15% Glass filledPolyester (20% Regrind)	SD-34586-001	PK-31300-438
MX64 Terminal service tool	63813 – 1400	N/A	AS–34566-001	N/A

2.5FEATURES AND BENEFITS:

- Receptacle and header housings with 6 unique mechanical polarization options and unique color coding offers the ability to use multiple connectors on one module without the risk of cross-mating incorrect harness connectors
- Wire dress available in 2 options: 0 and 180° orientation allows for wire-routing design flexibility
- Anti-scooping features are friendly to “blind-mate” conditions
- Integrated PLR and CPA components reduce assembly complexity
- Optional header terminal filtering eliminates cross talk between adjacent circuits
- PCB tail customization available with solder-tail or compliant-pin technology, allowing for PCB design flexibility
- Header placement flexibility allows top or bottom header loading to streamline module manufacturing process’s
- Precious plating enables stable contact resistance under extreme temperature and vibration conditions
- Lever retention lock on harness connector retains lever in pre-lock position for ease of installation

2.6 KNOWN APPLICATIONS:

- On Transmission (‘T’ control modules) and On Engine (‘E’ control modules.)
- Automotive, Industrial and Recreational Vehicles.
- Safety/ Chassis.
- Body and Interior.
- Information and Entertainment.

3.0APPLICABLE DOCUMENTS AND SPECIFICATIONS

Description	Document Number
Sales Drawing	See section 2.1
Application Specification	AS-34566-001
Packaging Specification	See section 2.1

4.0 SAFETY APPROVALS

Agency	Approval Status
CSA File Number	Not Applicable
TUV License number	Not Applicable
UL File Number	Not Applicable
IMDS	Available upon request
Environmental Compliance	Available on molex.com

5.0 RATINGS/ PERFORMANCE/ VALIDATION

Item			Description	Rating
5.1	Electrical	5.1.1	Operating Voltage	14 Volts DC Maximum.
		5.1.2	Total Connection Resistance (contact resistance) per the following: Dry circuit (low level) Resistance is determined by limiting the open circuit voltage of 20mV and 100mA maximum At rated current (Voltage drop) apply a 5 Ampere/ 1.0mm² current	8milliΩ Maximum
		5.1.3	Terminal Current Rating / De-rating *Current rating is dependent on many factors, including but not limited to application, connector size, ambient temperature, blade size, etc. Hence evaluate current rating for each application*	
			0.64mm	See PS-33468-001
			2.8mm - 14 AWG Sn - per USCAR-2	25.6 Amperes@ 25° C
				15.8 Amperes@ 125° C
			6.3mm	TBD
		5.1.4	Discontinuities	No Discontinuities > 7Ω for more than 1µS
		5.1.5	Isolation Resistance	20MegΩ minimum when 500 VDC between adjacent terminals and terminals to ground
5.2	Temperature	5.2.1	Operating Temperature	-40° C to 125° C
		5.2.2	Non- operating Temperature	-40° C to 125° C
5.3	Flammability	The burn rate of the plastic material when tested to ISO 3795 does not exceed 100 mm/min.		
5.4	Durability	Connectors are cycled 10 times prior to environmental tests.		
5.5	Seal-ability	IP67K and IP6K9K		

Product conforms to the following specifications:

1. GMW 3191 August 2000; Temperature Class 3, Vibration Class 1 and Sealing Class3
2. USCAR-2 Rev. 3; Temperature Class 3
3. IP67K and IP6K9K

For Validation results

- CONTACT YOUR MOLEX SALES ENGINEER , OR
- See TS-34566-002
  http://midasweb.global.molex.com:7041/midas/FileDownloadServlet?elid=CGDZZDKN

6.0 PACKAGING

Parts are packaged to protect against damage during handling, transit and storage. Product must remain in the supplied packaging prior to assembly in production.

7.0 GAGES AND FIXTURES

Gages and fixtures are referenced in the appropriate Control Plans.

8.0 OTHER INFORMATION/ MISCELLANEOUS

A. FLASH / KNOCK OUT PATTERNS

For existing Knock out pattern part #, refer to appropriate Sales Drawing. For adding new Knock out patterns, click link below:

http://ahonet.global.molex.com/scripts/Configurator/Configurator.aspx

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