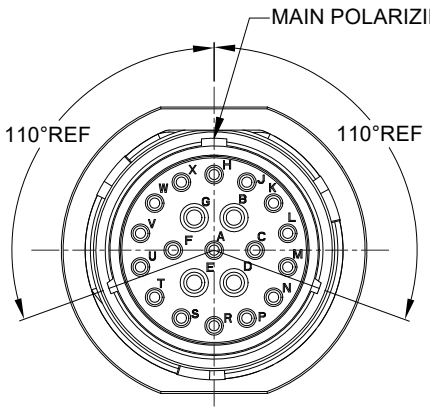
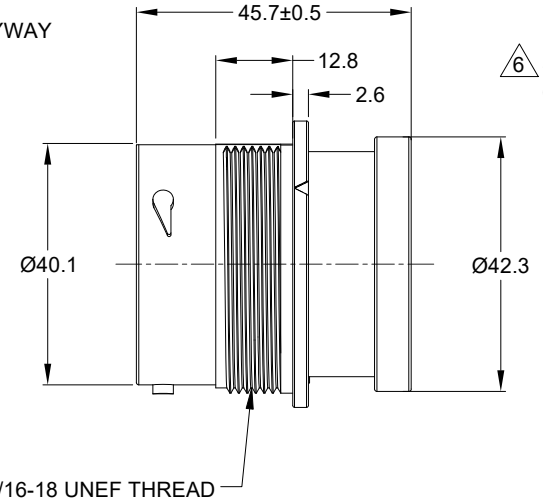
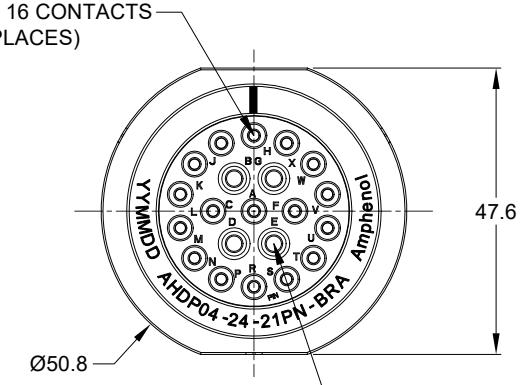
REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	APPR
A1	--	RELEASE NEW DRAWING	01MAR22	VITO	TOMMY







NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL:
   HOUSING: THERMOPLASTIC; BLACK
   SEAL: SILICONE RUBBER

2. MODIFICATIONS: BACKSHELL RING ADAPTER (BRA);
   STANDARD DIA. WIRE SEAL.

3. SPECIFICATIONS:
   - 3.1 OPERATING TEMPERATURE: -55°C TO +125°C.
   - 3.2 DIELECTRIC WITHSTANDING VOLTAGE: LESS THAN 2 MILLIAMPS CURRENT LEAKAGE @ 1500 VOLTS AC.
   - 3.3 INSULATION RESISTANCE: 1000 MEGOHM MIN @ 25°C.
   - 3.4 MOISTURE RESISTANCE:
     IP68(IM OF WATER FOR A PERIOD OF 24 HOURS,MATED CONDITION);
     IP69K (MATED CONDITION)
   - 3.5 MATING CYCLE DURABILITY: 100 CYCLES
   - 3.6 RoHS COMPLIANT

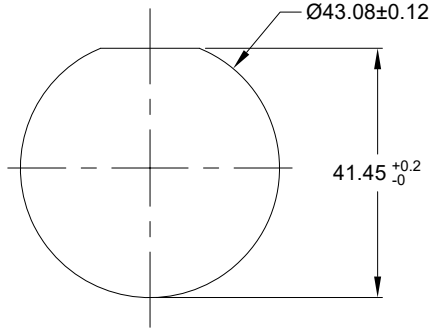
4. MATING PART: AHDP06-24-21S* (* = SEAL TYPE)

5. ALL DIMENSIONS ARE FOR REFERENCE USE ONLY.

6 CONTACT SIZE AND WIRE RANGE:

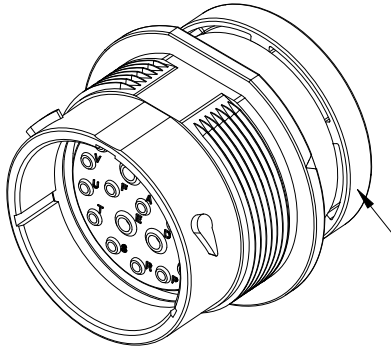
CONTACT SIZE	MIN. INSUL O.D.	MAX. INSUL O.D.	TYPICAL WIRE RANGE	CURRENT RATING
12	3.40 mm (.134 in)	4.32 mm (.170 in)	10-14 AWG (6.0-2.0mm²)	25 AMPS
16	2.50 mm (.100 in)	3.40 mm (.134 in)	14-20 AWG (2.0-0.5mm²)	13 AMPS

7. RECEPTACLE IS SUPPLIED WITH DUST CAP.



RECOMMENDED PANEL MOUNTING HOLE

RECOMMENDED PANEL THICKNESS:1.6 TO 4.7MM



	AHDP04-24-21PN-BRA	REF:HDP24-24-21PN-L017	
QUANTITY	PART NUMBER	DESCRIPTION	ITEM

MATERIALS LIST

UNLESS OTHERWISE SPECIFIED
1) All dimensions are in metric(mm).
2) Tolerances are as follows:
1 PL DEC ±0.30 | Fractions ±1/64
2 PL DEC ±0.15 | Angles ±1°
3 PL DEC ±0.08
3) Note reference = X

MATERIAL SPECIFICATIONS:
WEIGHT: 49.5g

PROCESS SPECIFICATIONS:

NEXT ASS'Y:

SIGNATURES		DATE
DRAWN:	VITO.LI	01MAR22
CHECKED:	SULLEN.ZHANG	02MAR22
ENGINEER:		
APPROVAL:	TOMMY.XIE	03MAR22
CUSTOMER:		

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Amphenol

Sine Systems - www.amphenol-sine.com
44724 Morley Drive
Clinton Township, MI 48036

21POS, RECEPTACLE, PIN, SIZE 24
, NORMAL SEAL, BRA, DURAMATE AHDP

SIZE	TYPE	DWG NO:	REVISION
B	C-	AHDP04-24-21PN-BRA	A1

SCALE: NONE | DURAMATE | SHEET 1 OF 1

TITLE: 21POS, RECEPTACLE, PIN, SIZE 24, NORMAL SEAL, BRA, DURAMATE AHDP
DWG NO: AHDP04-24-21PN-BRA
REV: A1
SH: 1
OF: 1

AHD, ARB, ATP, ATHD, DuraMate™ and PanelMate™ Series

Size 12 Contact & Tooling Options

Contacts - Machined

Part Number	Type	Style	Contact Size	Amp	Wire Range (AWG)	Wire Range (mm^2)	Insulation OD (mm)	Plating	Reel Size	Packaging
AT60-204-12141-10	Pin	Machined	Size 12	25A	10-12AWG	-	-	Nickel-Plated	-	-
AT60-204-12141	Pin	Machined	Size 12	25A	12-14AWG	-	-	Nickel-Plated	-	-
AT60-220-1231	Pin	Machined	Size 12	25A	12-14AWG	-	-	Gold-Plated	-	-
AT60-204-12NKIT	Pin	Machined	Size 12	25A	12-14AWG	-	-	Nickel-Plated	-	-
AT60-220-1231-1618	Pin	Machined	Size 12	25A	16-18AWG	-	-	Gold-Plated	-	-
AT60-220-1231-1820	Pin	Machined	Size 12	25A	18-20AWG	-	-	Gold-Plated	-	-
AT62-203-12141-10	Socket	Machined	Size 12	25A	10-12AWG	-	-	Nickel-Plated	-	-
AT62-203-12141	Socket	Machined	Size 12	25A	12-14AWG	-	-	Nickel-Plated	-	-
AT62-203-12NKIT	Socket	Machined	Size 12	25A	12-14AWG	-	-	Nickel-Plated	-	-
AT62-210-1231	Socket	Machined	Size 12	25A	12-14AWG	-	-	Gold-Plated	-	-
AT62-210-1231-1618	Socket	Machined	Size 12	25A	16-18AWG	-	-	Gold-Plated	-	-
AT62-210-1231-1820	Socket	Machined	Size 12	25A	18-20AWG	-	-	Gold-Plated	-	-

Contacts - Stamped & Formed

AT60-12-0222	Pin	S&F	Size 12	25A	10-12AWG	6.0-4.0mm^2	3.56 - 5.18mm	Nickel-Plated	-	-
AT60-12-0222-LP	Pin	S&F	Size 12	25A	10-12AWG	6.0-4.0mm^2	3.56 - 5.18mm	Nickel-Plated	-	Loose Piece
AT60-12-0244	Pin	S&F	Size 12	25A	10-12AWG	6.0-4.0mm^2	3.56 - 5.18mm	Gold-Plated	-	-
AT60-12-0244-LP	Pin	S&F	Size 12	25A	10-12AWG	6.0-4.0mm^2	3.56 - 5.18mm	Gold-Plated	-	Loose Piece
AT60-12-0144	Pin	S&F	Size 12	25A	12-14AWG	4.0-2.0mm^2	2.87 - 4.47mm	Gold-Plated	-	-
AT60-12-0144-LP	Pin	S&F	Size 12	25A	12-14AWG	4.0-2.0mm^2	2.87 - 4.47mm	Gold-Plated	-	Loose Piece
AT60-12-0166	Pin	S&F	Size 12	25A	12-14AWG	4.0-2.0mm^2	2.87 - 4.47mm	Nickel-Plated	-	-
AT60-12-0166-LP	Pin	S&F	Size 12	25A	12-14AWG	4.0-2.0mm^2	2.87 - 4.47mm	Nickel-Plated	-	Loose Piece
AT62-12-0222	Socket	S&F	Size 12	25A	10-12AWG	6.0-4.0mm^2	3.56 - 5.18mm	Nickel-Plated	-	-
AT62-12-0222-LP	Socket	S&F	Size 12	25A	10-12AWG	6.0-4.0mm^2	3.56 - 5.18mm	Nickel-Plated	-	Loose Piece
AT62-12-0244	Socket	S&F	Size 12	25A	10-12AWG	6.0-4.0mm^2	3.56 - 5.18mm	Gold-Plated	-	-
AT62-12-0244-LP	Socket	S&F	Size 12	25A	10-12AWG	6.0-4.0mm^2	3.56 - 5.18mm	Gold-Plated	-	Loose Piece
AT62-12-0144	Socket	S&F	Size 12	25A	12-14AWG	4.0-2.0mm^2	2.87 - 4.47mm	Gold-Plated	-	-
AT62-12-0144-LP	Socket	S&F	Size 12	25A	12-14AWG	4.0-2.0mm^2	2.87 - 4.47mm	Gold-Plated	-	Loose Piece
AT62-12-0166	Socket	S&F	Size 12	25A	12-14AWG	4.0-2.0mm^2	2.87 - 4.47mm	Nickel-Plated	-	-
AT62-12-0166-LP	Socket	S&F	Size 12	25A	12-14AWG	4.0-2.0mm^2	2.87 - 4.47mm	Nickel-Plated	-	Loose Piece

Tooling

Part Number	Tool Name	Style	Contact Size	Wire Range (AWG)	Material	Color
MFX-3966	Contact Locator for Hand Crimp Tool M300-25A	Machined	Size 12	10AWG	-	-
AUTK-12	Hand Crimp Tool	Machined	Size 12	10-18AWG	-	-
M300-25A	Hand Crimp Tool w MFX-3966 Locator	Machined	Size 12	10-18AWG	-	-
CA-5E12	Pneumatic Crimp Tool	Machined	Size 12/16/20	12-26AWG	-	-
CA-5D12	Universal Hand Crimp Tool	Machined	Size 12/16/20	12-26AWG	-	-
AUTK-100	Universal Heavy Duty Contact Crimping Tool Kit	Machined	Size 12/16/20	12-26AWG	-	-

AHD, ARB, ATP, ATHD, DuraMate™ and PanelMate™ Series

Size 12 Contact & Tooling Options, cont.

Tooling, cont.

Part Number	Tool Name	Style	Contact Size	Wire Range (AWG)	Material	Color
MFX-3973-G or K	Crimp Die Press Applicator	S&F	Size 12	12AWG	-	-
MFX-3985-G or K	Crimp Die Press Applicator	S&F	Size 12	10-12AWG	-	-
ATT-12-00	Hand Crimp Tool	S&F	Size 12	12-14AWG	-	-
ATT-12-01	Hand Crimp Tool	S&F	Size 12	10AWG	-	-
ATRT-100	Contact and Wedgelock Extraction Tool	Universal	Universal	-	Steel	Silver
AT11-337-1205	Contact Extraction Tool	Universal	Size 12	-	Plastic	Orange
A114017	Seal Plug	Universal	Size 12/16	-	Thermoplastic	White

AT, ATV, AHD, ARB, ARC, DuraMate™ and PanelMate™ Series

Size 16 Contact & Tooling Options

Contacts - Machined

Part Number	Type	Style	Contact Size	Amp	Wire Range (AWG)	Wire Range (mm^2)	Insulation OD (mm)	Plating	Reel Size	Packaging
AT60-215-16141	Pin	Machined	Size 16	13A	14AWG	-	-	Nickel-Plated	-	-
AT60-215-1631	Pin	Machined	Size 16	13A	14AWG	-	-	Gold-Plated	-	-
AT60-202-16NKIT	Pin	Machined	Size 16	13A	16-20AWG	-	-	Nickel-Plated	-	-
AT60-202-16141	Pin	Machined	Size 16	13A	16-20AWG	-	-	Nickel-Plated	-	-
AT60-202-1631	Pin	Machined	Size 16	13A	16-20AWG	-	-	Gold-Plated	-	-
AT60-202-16141-22	Pin	Machined	Size 16	13A	22-24AWG	-	-	Nickel-Plated	-	-
AT60-202-1631-22	Pin	Machined	Size 16	13A	22-24AWG	-	-	Gold-Plated	-	-
AT62-209-16141	Socket	Machined	Size 16	13A	14AWG	-	-	Nickel-Plated	-	-
AT62-209-1631	Socket	Machined	Size 16	13A	14AWG	-	-	Gold-Plated	-	-
AT62-201-16NKIT	Socket	Machined	Size 16	13A	16-20AWG	-	-	Nickel-Plated	-	-
AT62-201-16141	Socket	Machined	Size 16	13A	16-20AWG	-	-	Nickel-Plated	-	-
AT62-201-1631	Socket	Machined	Size 16	13A	16-20AWG	-	-	Gold-Plated	-	-
AT62-201-16141-22	Socket	Machined	Size 16	13A	22-24AWG	-	-	Nickel-Plated	-	-
AT62-201-1631-22	Socket	Machined	Size 16	13A	22-24AWG	-	-	Gold-Plated	-	-

Contacts - Stamped & Formed

AT60-14-0122	Pin	S&F	Size 16	13A	14-18AWG	2.0-0.75mm^2	2.40 - 3.81mm	Nickel-Plated	-	-
AT60-14-0122-LP	Pin	S&F	Size 16	13A	14-18AWG	2.0-0.75mm^2	2.40 - 3.81mm	Nickel-Plated	-	Loose Piece
AT60-14-0144	Pin	S&F	Size 16	13A	14-18AWG	2.0-0.75mm^2	2.40 - 3.81mm	Gold-Plated	-	-
AT60-14-0144-LP	Pin	S&F	Size 16	13A	14-18AWG	2.0-0.75mm^2	2.40 - 3.81mm	Gold-Plated	-	Loose Piece
AT60-16-0122	Pin	S&F	Size 16	13A	16-18AWG	1.5-0.75mm^2	1.91 - 3.55mm	Nickel-Plated	-	-
AT60-16-0122-LP	Pin	S&F	Size 16	13A	16-18AWG	1.5-0.75mm^2	1.91 - 3.55mm	Nickel-Plated	-	Loose Piece
AT60-16-0144	Pin	S&F	Size 16	13A	16-18AWG	1.5-0.75mm^2	1.91 - 3.55mm	Gold-Plated	-	-
AT60-16-0144-LP	Pin	S&F	Size 16	13A	16-18AWG	1.5-0.75mm^2	1.91 - 3.55mm	Gold-Plated	-	Loose Piece
AT60-16-0622	Pin	S&F	Size 16	13A	16-20AWG	1.0-0.5mm^2	1.40 - 2.54mm	Nickel-Plated	-	-
AT60-16-0622-LP	Pin	S&F	Size 16	13A	16-20AWG	1.0-0.5mm^2	1.40 - 2.54mm	Nickel-Plated	-	Loose Piece
AT60-16-0644	Pin	S&F	Size 16	13A	16-20AWG	1.0-0.5mm^2	1.40 - 2.54mm	Gold-Plated	-	-
AT60-16-0644-LP	Pin	S&F	Size 16	13A	16-20AWG	1.0-0.5mm^2	1.40 - 2.54mm	Gold-Plated	-	Loose Piece
AT60-16-0322	Pin	S&F	Size 16	13A	20-22AWG	0.5-0.35mm^2	1.31 - 1.50mm	Nickel-Plated	-	-
AT60-16-0344	Pin	S&F	Size 16	13A	20-22AWG	0.5-0.35mm^2	1.31 - 1.50mm	Gold-Plated	-	-
AT60-16-0377	Pin	S&F	Size 16	13A	20-22AWG	0.5-0.35mm^2	1.31 - 1.50mm	Tin-Plated	-	-
AT60-16-0822	Pin	S&F	Size 16	13A	20-22AWG	0.5-0.35mm^2	1.31 - 1.50mm	Nickel-Plated	4,000	-
AT60-16-0844	Pin	S&F	Size 16	13A	20-22AWG	0.5-0.35mm^2	1.31 - 1.50mm	Gold-Plated	4,000	-
AT62-14-0122	Socket	S&F	Size 16	13A	14-18AWG	2.0-0.75mm^2	2.40 - 3.81mm	Nickel-Plated	-	-
AT62-14-0122-LP	Socket	S&F	Size 16	13A	14-18AWG	2.0-0.75mm^2	2.40 - 3.81mm	Nickel-Plated	-	Loose Piece
AT62-14-0144	Socket	S&F	Size 16	13A	14-18AWG	2.0-0.75mm^2	2.40 - 3.81mm	Gold-Plated	-	-
AT62-14-0144-LP	Socket	S&F	Size 16	13A	14-18AWG	2.0-0.75mm^2	2.40 - 3.81mm	Gold-Plated	-	Loose Piece
AT62-16-0122	Socket	S&F	Size 16	13A	16-18AWG	1.5-0.75mm^2	1.91 - 3.55mm	Nickel-Plated	-	-
AT62-16-0122-LP	Socket	S&F	Size 16	13A	16-18AWG	1.5-0.75mm^2	1.91 - 3.55mm	Nickel-Plated	-	Loose Piece
AT62-16-0144	Socket	S&F	Size 16	13A	16-18AWG	1.5-0.75mm^2	1.91 - 3.55mm	Gold-Plated	-	-

AT, ATV, AHD, ARB, ARC, DuraMate™ and PanelMate™ Series

Size 16 Contact & Tooling Options, cont.

Contacts - Stamped & Formed, cont.

Part Number	Type	Style	Contact Size	Amp	Wire Range (AWG)	Wire Range (mm^2)	Insulation OD (mm)	Plating	Reel Size	Packaging
AT62-16-0144-LP	Socket	S&F	Size 16	13A	16-18AWG	1.5-0.75mm^2	1.91 - 3.55mm	Gold-Plated	-	Loose Piece
AT62-16-0622	Socket	S&F	Size 16	13A	16-20AWG	1.0-0.5mm^2	1.40 - 2.54mm	Nickel-Plated	-	-
AT62-16-0622-LP	Socket	S&F	Size 16	13A	16-20AWG	1.0-0.5mm^2	1.40 - 2.54mm	Nickel-Plated	-	Loose Piece
AT62-16-0644	Socket	S&F	Size 16	13A	18-20AWG	1.0-0.5mm^2	1.40 - 2.54mm	Gold-Plated	-	-
AT62-16-0644-LP	Socket	S&F	Size 16	13A	18-20AWG	1.0-0.5mm^2	1.40 - 2.54mm	Gold-Plated	-	Loose Piece
AT62-16-0822	Socket	S&F	Size 16	13A	20-22AWG	0.5-0.35mm^2	1.31 - 1.50mm	Nickel-Plated	4,000	-
AT62-16-0844	Socket	S&F	Size 16	13A	20-22AWG	0.5-0.35mm^2	1.31 - 1.50mm	Gold-Plated	4,000	-

Tooling

Part Number	Tool Name	Style	Contact Size	Wire Range (AWG)	Material	Color
AUTK-16	Hand Crimp Tool	Machined	Size 16	-	-	-
AUTK-100	Universal Heavy Duty Contact Crimping Tool Kit	Machined	Size 12/16/20	12-26AWG	-	-
CA-5D12	Universal Hand Crimp Tool	Machined	Size 12/16/20	12-26AWG	-	-
CA-5E12	Pneumatic Crimp Tool	Machined	Size 12/16/20	12-26AWG	-	-
MFX-3950-G or K	Crimp Die Press Applicator	S&F	Size 16	18-20AWG	-	-
MFX-3953-G or K	Crimp Die Press Applicator	S&F	Size 16	16-18AWG	-	-
MFX-3975-G or K	Crimp Die Press Applicator	S&F	Size 16	14-16AWG	-	-
MFX-3990	Crimp Die	S&F	Size 16	20-22AWG	-	-
ATT-16-00	Hand Crimp Tool	S&F	Size 16	14-16AWG	-	-
ATT-16-01	Hand Crimp Tool	S&F	Size 16	18-20AWG	-	-
ATT-1612-03	Hand Crimp Tool	S&F	Size 12/16	20-22AWG	-	-
ATRT-100	Contact and Wedgelock Extraction Tool	Universal	Universal	-	Steel	Silver
AT11-310-1605	Contact Extraction Tool	Universal	Size 16	-	Plastic	Lt Blue
A114017	Seal Plug	Universal	Size 12/16	-	Thermoplastic	White
A114017-SR	Seal Plug	Universal	Size 16	-	Thermoplastic	Black
AT13-217-1605	Locking Seal Plug	Universal	Size 16	-	Thermoplastic	Grey
AT13-217-1605-SR	Locking Seal Plug	Universal	Size 16	-	Thermoplastic	Red