

Алматы (7273)495-231	Иваново (4932)77-34-06	Магнитогорск (3519)55-03-13	Пермь (342)205-81-47	Тверь (4822)63-31-35
Ангарск (3955)60-70-56	Ижевск (3412)26-03-58	Москва (495)268-04-70	Ростов-на-Дону (863)308-18-15	Тольятти (8482)63-91-07
Архангельск (8182)63-90-72	Иркутск (395)279-98-46	Мурманск (8152)59-64-93	Рязань (4912)46-61-64	Томск (3822)98-41-53
Астрахань (8512)99-46-04	Казань (843)206-01-48	Набережные Челны (8552)20-53-41	Самара (846)206-03-16	Тула (4872)33-79-87
Барнаул (3852)73-04-60	Калининград (4012)72-03-81	Нижний Новгород (831)429-08-12	Саранск (8342)22-96-24	Тюмень (3452)66-21-18
Белгород (4722)40-23-64	Калуга (4842)92-23-67	Новокузнецк (3843)20-46-81	Санкт-Петербург (812)309-46-40	Ульяновск (8422)24-23-59
Благовещенск (4162)22-76-07	Кемерово (3842)65-04-62	Ноябрьск (3496)41-32-12	Саратов (845)249-38-78	Улан-Удэ (3012)59-97-51
Брянск (4832)59-03-52	Киров (8332)68-02-04	Новосибирск (383)227-86-73	Севастополь (8692)22-31-93	Уфа (347)229-48-12
Владивосток (423)249-28-31	Коломна (4966)23-41-49	Омск (3812)21-46-40	Симферополь (3652)67-13-56	Хабаровск (4212)92-98-04
Владикавказ (8672)28-90-48	Кострома (4942)77-07-48	Орел (4862)44-53-42	Смоленск (4812)29-41-54	Чебоксары (8352)28-53-07
Владимир (4922)49-43-18	Краснодар (861)203-40-90	Оренбург (3532)37-68-04	Сочи (862)225-72-31	Челябинск (351)202-03-61
Волгоград (844)278-03-48	Красноярск (391)204-63-61	Пенза (8412)22-31-16	Ставрополь (8652)20-65-13	Череповец (8202)49-02-64
Вологда (8172)26-41-59	Курск (4712)77-13-04	Петрозаводск (8142)55-98-37	Сургут (3462)77-98-35	Чита (3022)38-34-83
Воронеж (473)204-51-73	Курган (3522)50-90-47	Псков (8112)59-10-37	Сыктывкар (8212)25-95-17	Якутск (4112)23-90-97
Екатеринбург (343)384-55-89	Липецк (4742)52-20-81		Тамбов (4752)50-40-97	Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

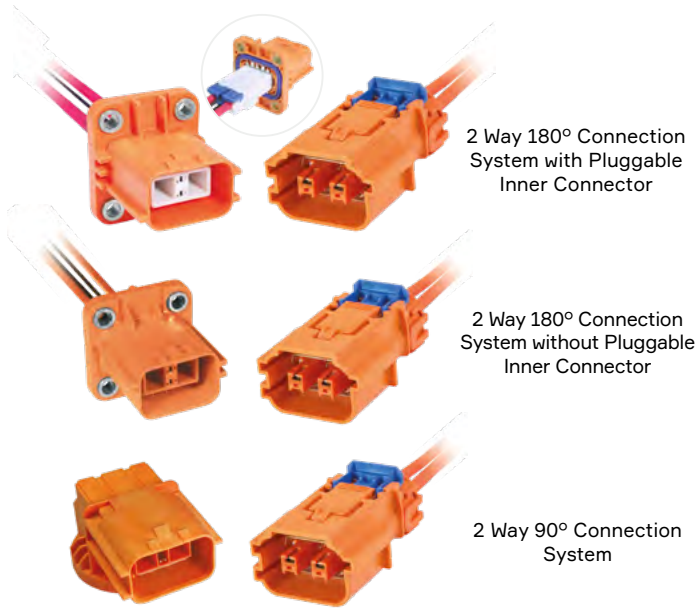
Киргизия +996(312)96-26-47

www.aptiv.nt-rt.ru | | avi@nt-rt.ru

Технические характеристики на ВЫСОКОВОЛЬТНЫЕ МЕЖСОЕДИНИТЕЛЬНЫЕ КОЛОДКИ SHIELDPACK, часть 1 КОМПАНИИ **APTIV PLC**

Серии: HV 280 SI, HV 280 SI 3 BAY HEADER, HV AK CLASS 1 SI 2 WAY, HV AK CLASS 1 SMU, PHV AK CLASS 2 SMU - 2 WAY, HV AK CLASS 4 SI 2 WAY, HV AK CLASS 4 SI 3 WAY, HV AK PLASTIC PASS-THROUGH SI AK.

SHIELDPACK™ HV 280 SI 2 WAY



BENEFITS

- Inner connector with TPA can be plugged into header during device assembly (on wire-to-device)
- Industry-leading vibration performance
- Field proven design used across electrification market

FEATURES

- Tool-less unmating system
- Finger proof/touch safe
- Aluminum compression bushings
- ISO cable compatible



AVAILABLE CONFIGURATIONS

Connector Type	Wire-to-device, wire-to-wire
Cable Exit Orientation	90°, 180°
Cable Range (mm ²)	2 - 5 (power) / 0.5 (HVIL)
Terminal Type	CTS 2.8, Metri-pack 2.8
# of Power Terminals	2
Shielding Type	Individual
HVIL	Shunt on female
Assembly Assurance	CPA/TPA
Number of Indexes	3 (180°), 1 (90°)



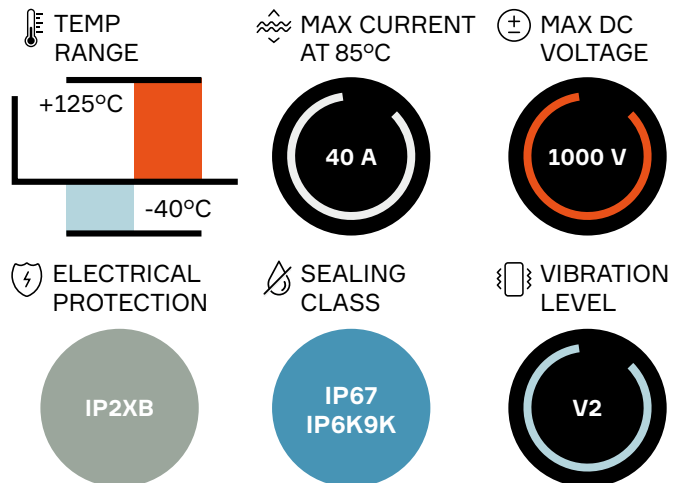
APPLICATIONS

Battery pack
DC / DC converter
On-board charger (OBC)

See back page for representative part numbers and packaging dimensions.



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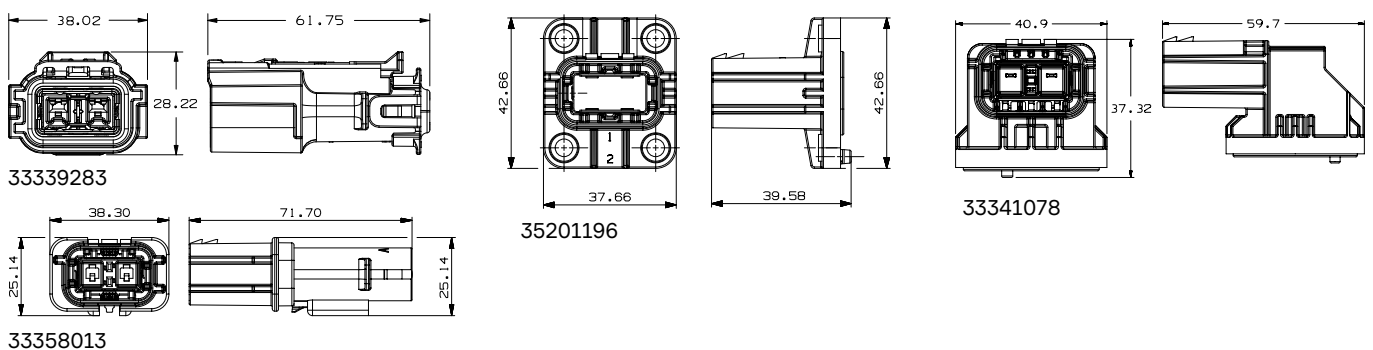


Index	Header with pluggable inner connector		Header	Male inline connector	Mating connector	BOM
	Outer Header	Inner connector				
2 Way 180° Connection System						
101	35201196	15526394	33240508	33358013	33339283	
102	35201197	15526395	33240509	33358014	33353455	1
103	35201198	15526396	33240510	33358015	33353456	
2 Way 90° Connection System						
101	33341078	33341079			33339283	1

ASSOCIATED PARTS

Part number	Description	BOM
Header		
13753470	Metri-pack 2.8 male terminal 1 - 2 mm ²	
13753471	Metri-pack 2.8 male terminal 3 mm ²	2
13790534	Metri-pack 2.8 male terminal 4 - 5 mm ²	
15432235	CTS HVIL female terminal 0.5 mm ²	2
15526390	TPA	1
Inline Male		
13753470	Metri-pack 2.8 male terminal 1 - 2 mm ²	
13753471	Metri-pack 2.8 male terminal 3 mm ²	2
13790534	Metri-pack 2.8 male terminal 4 - 5 mm ²	
13737699	Inner ferrule 3 mm ²	
33292550	Inner ferrule 5 mm ²	2
13737702	Outer ferrule 3 mm ²	
33292551	Outer ferrule 5 mm ²	2
15513453	Cable seal 3 mm ²	1
15513451	Cable seal 5 mm ²	1
13824779	TPA / strain relief 3 mm ²	1
13888072	TPA / strain relief 5 mm ²	1
Mating connector		
13882331	CTS 2.8 female terminal 3 - 5 mm ²	2
13737699	Inner ferrule 3 mm ²	
33292550	Inner ferrule 5 mm ²	2
13737702	Outer ferrule 3 mm ²	
33292551	Outer ferrule 5 mm ²	2
15513453	Cable seal 3 mm ²	1
15513451	Cable seal 5 mm ²	1
13824779	TPA / strain relief 3 mm ²	1
13888072	TPA / strain relief 5 mm ²	1

DIMENSION MEASUREMENT SAMPLE



SHIELDPACK™

HV AK CLASS 1 SI 2 WAY



AVAILABLE CONFIGURATIONS

Connector Type	Wire-to-device
Cable Exit Orientation	180°
Cable Range (mm²)	3 / 4 / 5
Terminal Type	2.8 mm Blade Contact
# of Cavities	2
Shielding	Individual
HVIL	Shunt
Assembly Assurance	CPA
Number of Indexes	5



APPLICATIONS

Air Conditioning	On-board charger (OBC)
PTC Heater	DC/DC

BENEFITS

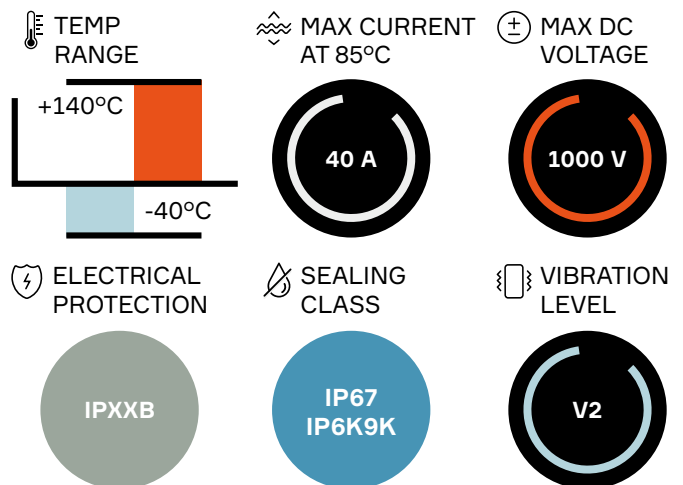
- High operating temperature
- High robustness against vibrations
- Standard AK interface
- Multiple layout & HVIL options offered with same interface (see also Multicore Shielded series)

FEATURES

- For applications with needs up to 40A
- Compliant to LV214 / LV215
- Patented squeezing fixture for enhanced anti-vibration performance
- Smaller package size than Multicore version



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See back page for representative part numbers and packaging dimensions.

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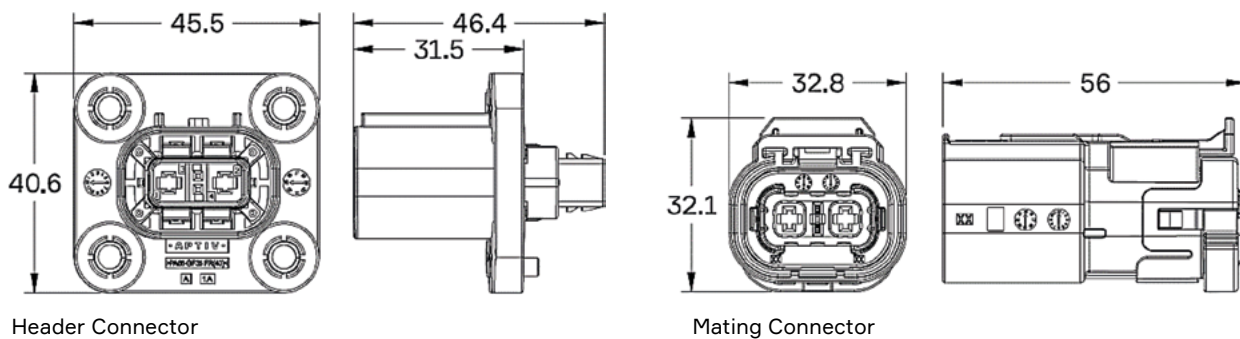


Index	Header connector	Mating Connector – Individually Shielded	BOM
A	35149836	35206206	1
B	35149837	35206207	
C	35149838	35206208	
D	35149839	35206209	
E	35149840	35206210	

ASSOCIATED PARTS

Part number			Description	BOM
Header				
35194900 Ag plated 33401022 Sn plated			DCS-2 2.8 Male Terminal	2
15540349 Ag plated 13580633 Sn plated			MTS-II 0.64 Female Terminal 0.25 - 0.35 mm ²	2
15540356 Ag plated 13580635 Sn plated			MTS-II 0.64 Female Terminal 0.5 - 0.75 mm ²	
35149868			TPA	1
Mating connector				
3 mm ² Cable	4 mm ² Cable	5 mm ² Cable		
13882331 Ag plated 13943933 Sn plated			CTS 2.8 Female Terminal	2
33522728 Ag plated 13780621 Sn plated			DCK 2.8 Female Terminal	
35226475	35230979	35230980	Outer Ferrule	2
35242858	35236785	35236786	Inner Ferrule	2
35240442	35230976	35206307	Cable Seal	1
35242833	35206310	35208801	Cable Strain Relief	1

DIMENSION MEASUREMENT SAMPLE



Header Connector

Mating Connector

SHIELDPACK™

HV AK CLASS 1 SMU 2 AND 3 WAY AK



AVAILABLE CONFIGURATIONS

Connector Type	Wire-to-device
Cable Exit Orientation	180°
Cable Range (mm²)	2.5 - 4 (power) 0.5 - 0.75 (HVIL)
Terminal Type (mm)	2.8
# of Power Terminals	2
Shielding	Multicore
HVIL	Shunt on female or inline
Assembly Assurance	CPA/TPA
Number of Indexes	5



APPLICATIONS

Battery pack	PTC heater
DC / DC converter	HV PDU
Electric AC	On-board charger (OBC)

See back page for representative part numbers and packaging dimensions.

BENEFITS

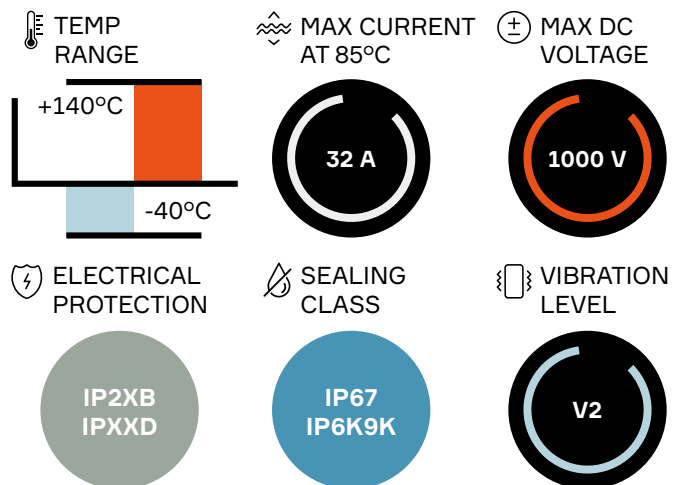
- Standard AK interface
- High vibrations and operating temperatures
- Multiple layouts & HVIL options in the same interface

FEATURES

- Designed according to AK interface specification and LV215 latest revision
- Finger proof/touch safe
- Multicore shielded cable for wiring simplification
- Fully interchangeable with other AK supplier sources



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Code	Header 2 way	Header 3 way	Mating outer housing	BOM
A	35149836	35149842	33372017	1
B	35149837	35149843	33372014	
C	35149838	35149844	33372016	
D	35149839	35149845	33372015	
E	35149840	35149846	35061103	

ASSOCIATED PARTS

Part number	Description	BOM		
		2 way, HVIL pass-through	2 way, HVIL shunt	3 way
Header				
35194900	DCS-2 2.8 male unsealed terminal 2.5-4 mm ² Ag	2	2	3
35149868	TPA (Terminal Position Assurance) 2 way	1	1	-
35149869	TPA (Terminal Position Assurance) 3 way	-	-	1
15540356	MTS 0.64 female terminal 0.5-0.75 mm ² Ag	2	2	-
Mating Connector				
13799603	CTS 2.8 female terminal 2.5 mm ² Ag	2	2	3
13882331	CTS 2.8 female terminal 4 mm ² Ag			
33504709	HVIL male DuoTwin 0.64 0.5 mm ² Ag	2	-	-
35174268	Spacer	1	1	1
35174446	Shielding	2	2	2
35174249	Cable strain relief 3 x 2.5 mm ²	-	-	1
35174250	Cable seal 3 x 2.5 mm ²	-	-	1
35174511	Inner housing 2 way	1	-	-
35174507	Cable strain relief 2 x 4.0 mm ²	-	1	-
35174508	Cable seal 2 x 4.0 mm ²	1	1	-
35174280	Inner ferrule	1	1	1
35174278	Outer ferrule	1	1	1
35174509	Inner housing sub-assembly	-	1	-
35174448	Inner housing 3 way	-	-	1
35174513	TPA (Terminal Position Assurance)	1	-	-
35174510	Cable strain relief 2 x 4.0 + 2 x 0.5 mm ²	1	-	-

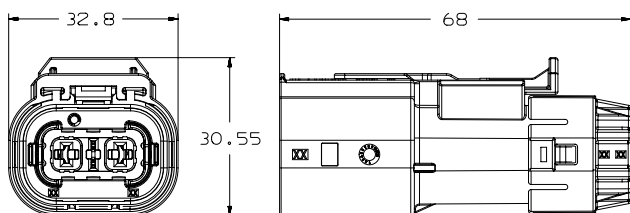
* Both DCK terminals and CTS terminals are compatible.

Component Kits**

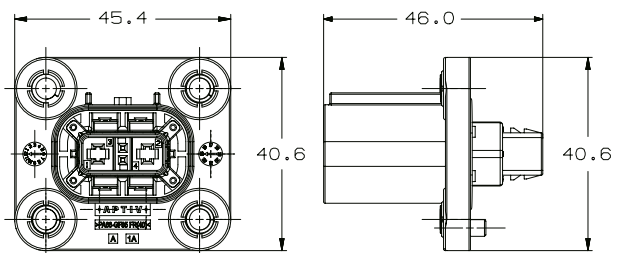
Part number	Description (pass-through version)	Part number	Description (shunted version)
35122237	2 x 4 mm ² + 2 x 0.5 mm ² cable code A	33367712	2 x 4 mm ² cable code A
35122238	2 x 4 mm ² + 2 x 0.5 mm ² cable code B	35122240	2 x 4 mm ² cable code B
33367711	2 x 4 mm ² + 2 x 0.5 mm ² cable code C	35122241	2 x 4 mm ² cable code C
35122239	2 x 4 mm ² + 2 x 0.5 mm ² cable code D	33367710	2 x 4 mm ² cable code D
35086591	2 x 4 mm ² + 2 x 0.5 mm ² cable code E	35086590	2 x 4 mm ² cable code E

** Available configurations with associated BOM (Bill Of Materials).

DIMENSION MEASUREMENT SAMPLE



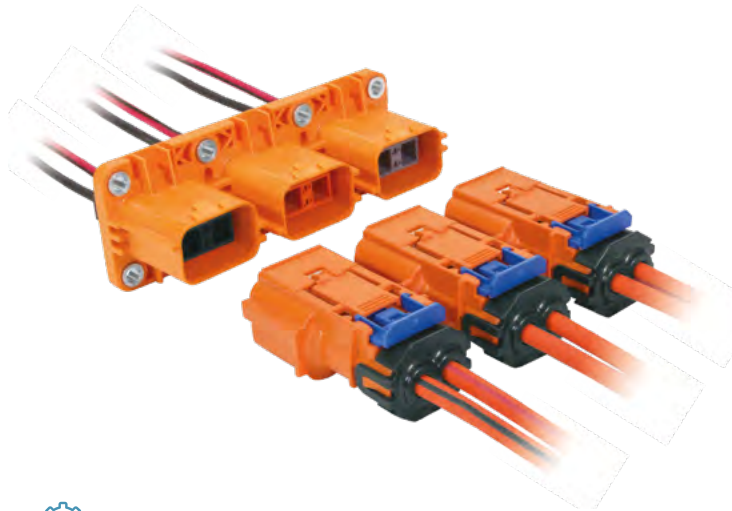
33367712



35149836

SHIELDPACK™

HV 280 SI 3 BAY HEADER



BENEFITS

- Answering to space constraints by having the 3 headers bolted together
- Inner connector with TPA can be plugged into header during device assembly (on wire-to-device)
- Industry-leading vibration performance
- Field proven design used across electrification market

FEATURES

- Tool-less unmatting system
- Finger proof/touch safe
- Aluminum compression bushings
- ISO cable compatible



AVAILABLE CONFIGURATIONS

Connector Type	Wire-to-device
Cable Exit Orientation	180°
Cable Range (mm ²)	2 - 5 (power) / 0.5 (HVIL)
Terminal Type	CTS 1.2, Metri-pack 2.8
# of Power Terminals	2
Shielding Type	Individual
HVIL	Shunt on female
Assembly Assurance	CPA/TPA
Number of Indexes	3



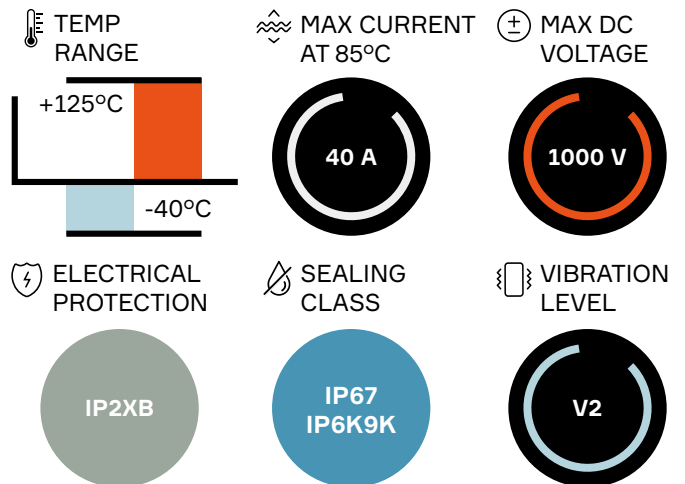
APPLICATIONS

Battery pack
DC / DC converter
On-board charger (OBC)

See back page for representative part numbers and packaging dimensions.



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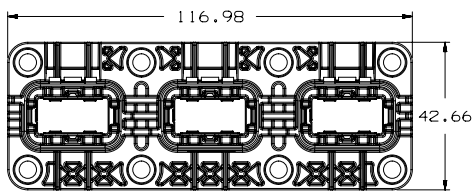


Index	Header outer	Header inner connector	Mating connector	BOM
103	33223976	15526396	33353456	1
104		15526397	33353457	
105		33137225	33353458	

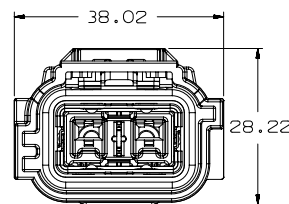
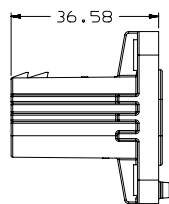
ASSOCIATED PARTS

Part number	Description	BOM
Header		
13753470	Metri-pack 2.8 male terminal 1 - 2 mm ²	2
13753471	Metri-pack 2.8 male terminal 3 mm ²	
13790534	Metri-pack 2.8 male terminal 4 - 5 mm ²	
15432235	CTS HVIL female terminal 0.5 mm ²	2
15526390	TPA	1
Mating connector		
13882331	CTS 2.8 female terminal 3 - 5 mm ²	2
13737699	Inner ferrule 3 mm ²	2
33292550	Inner ferrule 5 mm ²	
13737702	Outer ferrule 3 mm ²	2
33292551	Outer ferrule 5 mm ²	
15513453	Cable seal 3 mm ²	1
15513451	Cable seal 5 mm ²	1
13824779	TPA / strain relief 3 mm ²	1
13888072	TPA / strain relief 5 mm ²	1

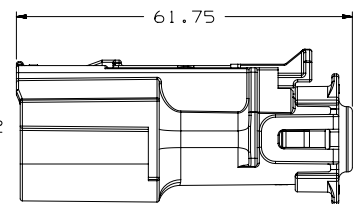
DIMENSION MEASUREMENT SAMPLE



33223976

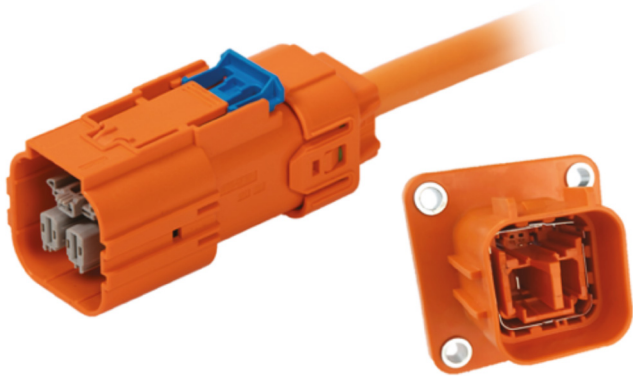


33353456



SHIELDPACK™

HV AK CLASS 2 SMU 2 WAY



AVAILABLE CONFIGURATIONS

Connector Type	Wire-to-device
Cable Exit Orientation	180°
Cable Range (mm ²)	4 - 6
Terminal Type	6.3 mm Blade Contact
# of Cavities	2
Shielding	Multicore
HVIL	Shunt
Assembly Assurance	CPA
# of Code Indexes	2



APPLICATIONS

Air Conditioning
PTC Heater
On-board charger (OBC)
DC/DC

See back page for representative part numbers and packaging dimensions.

BENEFITS

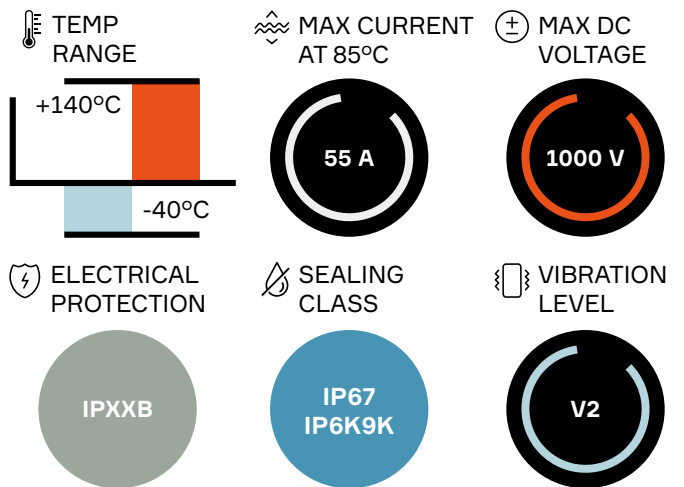
- High operating temperature
- High robustness against vibrations
- Standard AK interface
- No mechanical assist required thanks to low insertion force

FEATURES

- For applications with needs up to 55A
- Compliant to LV214 / LV215
- Tool-less mating & un-mating system
- Patented squeezing fixture for enhanced anti-vibration performance



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Index	Header Connector	Mating Connector	BOM
A	35116365	35230076	1
B	35169586	35230077	

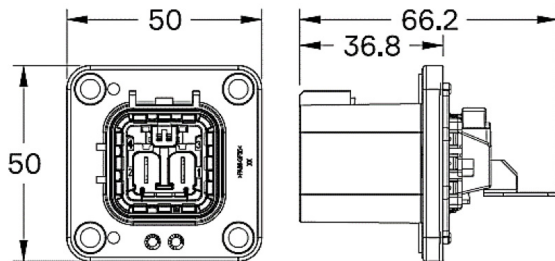
Additional codes are offered on demand. Contact an Aptiv representative for details.
Header connector can be customized for outlet and assembled HVIL harness. Contact Aptiv engineering for details.

ASSOCIATED PARTS

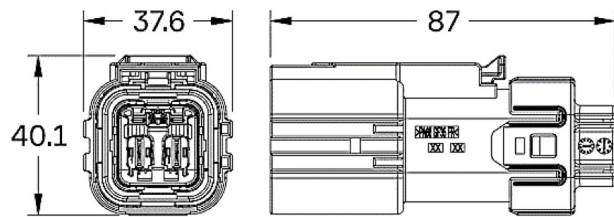
Part number		Description	BOM
Header connector			
13952636*		1.2 Male Terminal 0.5 - 0.75 mm ²	2
Mating connector			
2 × 4 mm ² Cable	2 × 6 mm ² Cable	CTS 6.3 Female Terminal	2
13984302 Ag plated	13984307 Ag plated		
13976101 Sn plated	13976102 Sn plated		1
35196906		HVIL Shunt Harness	1
35174280	35200703	Inner Ferrule	1
35200704	35200705	Outer Ferrule	2
35200706	35200707	EMC Shield	1
35230073		Inner Housing	1
35200700	35200701	Cable Seal	1
35230068	35230069	Cable Strain Relief	

* Non Aptiv terminal, please consult us.

DIMENSION MEASUREMENT SAMPLE



Header Connector



Mating Connector

SHIELDPACK™

HV AK CLASS 4 SI 3 WAY



BENEFITS

- High operating temperature
- High robustness against vibrations
- Optimized for better contact resistance and lesser retention force

FEATURES

- Up to 50 mm² cross sections
- For applications with needs up to 235A
- Compliant to LV214 / LV215
- Patented squeezing fixture for enhanced anti-vibration performance



AVAILABLE CONFIGURATIONS

Connector Type	Wire-to-device
Cable Exit Orientation	90°
Cable Range (mm ²)	25 / 35 / 50
Terminal Type	8 mm round contact
# of Cavities	3
Shielding	Individual
HVIL	Shunt
Assembly Assurance	CPA
# of Code Indexes	2



APPLICATIONS

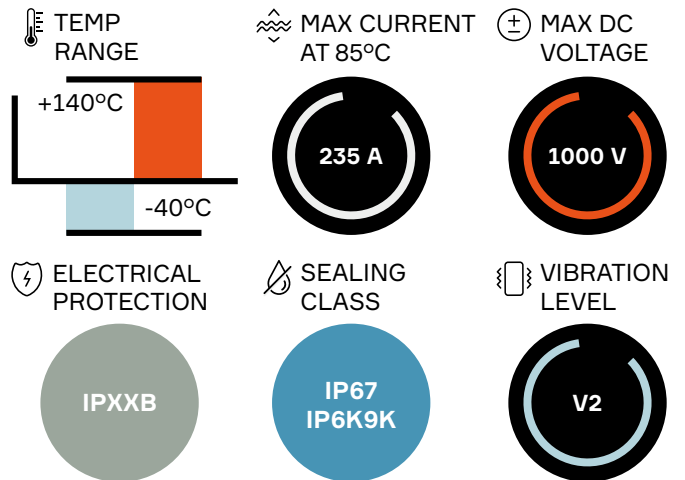
Powertrain High Voltage / Current Modules:

Power Converter / Inverter	E-motor
HV Power Distribution Unit (PDU)	HV Battery(PDU)

See back page for representative part numbers and packaging dimensions.



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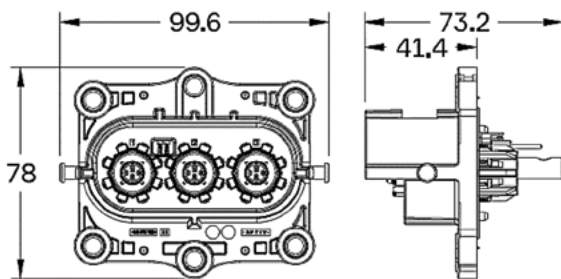


Index	Header Connector	Mating Connector	BOM
A	35249282	35255867	1
B	35253672	35263285	

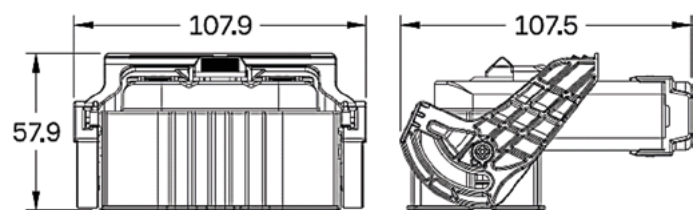
ASSOCIATED PARTS

Part number			Description	BOM
Header Connector				
35244766			APT 6.3 Male Terminal 4 - 6 mm ²	2
13952636			1.2 Male Terminal 0.5 - 0.75 mm ²	2
Mating connector				
25 mm ² Cable	35 mm ² Cable	50 mm ² Cable		
35172741	35172742 or 35150077		APT-890 Female Terminal	3
	35172744		Deep Drawn Socket Pin	3
	35142203		Outer Insulation Cap	3
35172724	35172725	35172726	Inner Ferrule	3
35172727	35172728	35172729	Outer Ferrule	3
35172732	35172733	35172734	Cable Seal	3
35149115	35142208	35149113	Cable Strain Relief	3

DIMENSION MEASUREMENT SAMPLE



Header Connector



Mating Connector

SHIELDPACK™ HV AK PLASTIC PASS-THROUGH SI 16-50mm²

1, 2 AND 3 WAY AK



BENEFITS

- Very compact dimensions
- High robustness against vibrations
- Higher operating temperatures

FEATURES

- Ring terminal is bolted to device
- Cables are 360° individually shielded
- High voltage panel mount system
- Fully interchangeable with other AK supplier sources



AVAILABLE CONFIGURATIONS

Connector Type	Pass-through
Cable Exit Orientation	180°
Cable Range (mm ²)	16 - 50 (power)
Terminal Type	O-ring
Shielding	Individual
HVIL	None



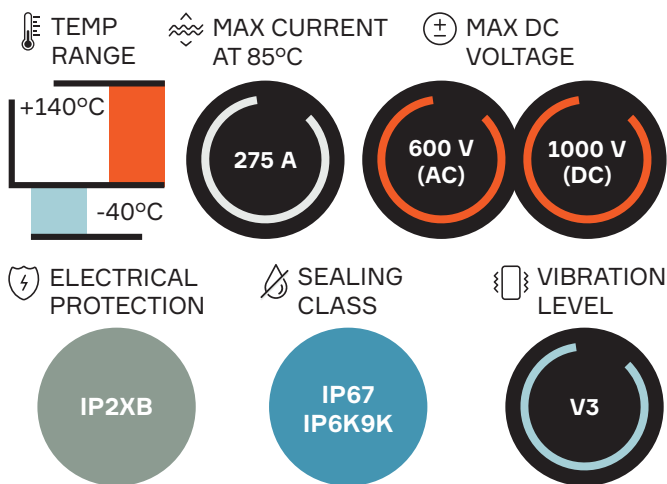
APPLICATIONS

AC / DC inverter	Power electric box
HV battery	E-motor
HV PDU	

See back page for representative part numbers and packaging dimensions.



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Main Housing Body Components

Code	Number of ways			BOM
	1	2	3	
A	33340524	33340525	33340526	1
B	35066699	-	-	

ASSOCIATED PARTS

Description	Cable size				BOM*
	16 mm ²	25 mm ²	35 mm ²	50 mm ²	
Peripheral seal	35116341				1, 2 or 3
Inner ferrule	35172747				1, 2 or 3
Outer ferrule	33340554	35172745	35172743	33340551	1, 2 or 3
Single wire seal	33340537	35172739	35172738	33340534	1, 2 or 3
Cable strain relief	33340542	33340541	33340540	33340539	1, 2 or 3

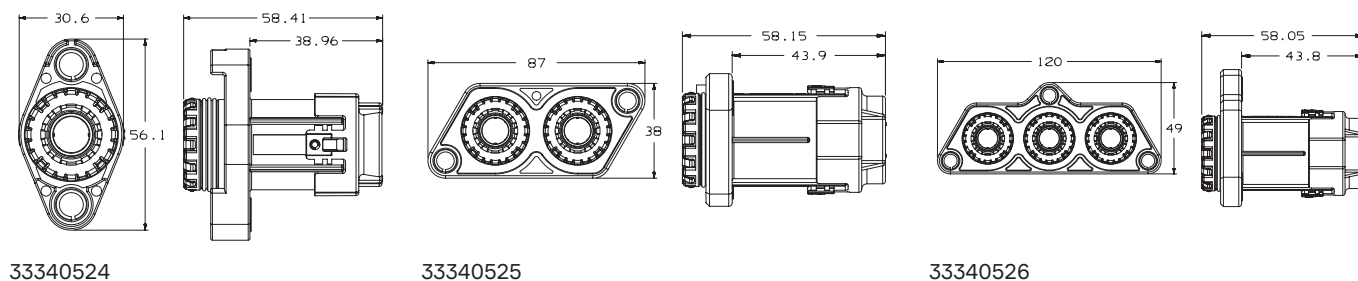
* Depending on if the component is for 1, 2 or 3 Way pass-through.

Component Kits**

Code	Cable size				BOM
	16 mm ²	25 mm ²	35 mm ²	50 mm ²	
1 Way					
A	33350177	33350176	33350175	33349598	1
B	-	-	-	35083309	1
2 Way					
A	33350180	33350179	33350178	33349600	2
3 Way					
A	33350183	33350182	33350181	33350072	3

** Available configurations with associated BOM (Bill Of Materials).

DIMENSION MEASUREMENT SAMPLE



SHIELDPACK™

HV AK CLASS 4 SI 2 WAY **AK**



AVAILABLE CONFIGURATIONS

Connector Type	Wire-to-device
Cable Exit Orientation	90°, 180°
Cable Range (mm ²)	25 - 50 (power) / 0.5 (HVIL)
Terminal Type	8 mm round contact system
# of Power Terminals	2
Shielding	Individual
HVIL	Shunt on female
Assembly Assurance	CPA/TPA
Number of Indexes	4



APPLICATIONS

AC / DC inverter	E-motor
HV battery	Power electric box
HV PDU	

See back page for representative part numbers and packaging dimensions.

BENEFITS

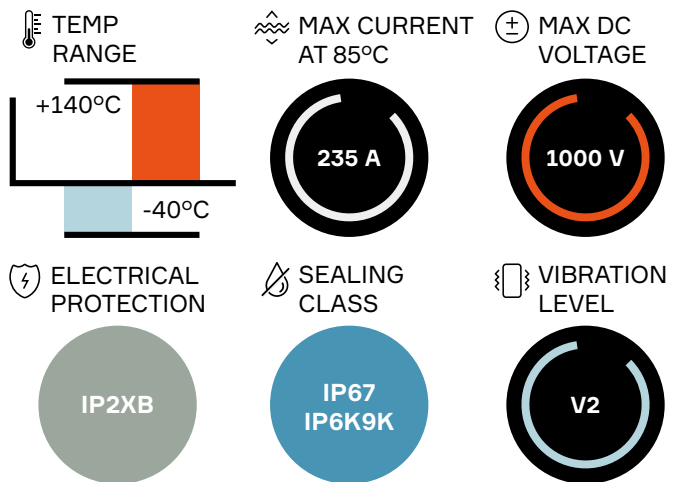
- Standard AK interface
- High operating temperature
- High robustness against vibrations
- Optimized for better contact resistance and lesser retention force
- Offer both 90° and 180° systems, with same header connector and interface

FEATURES

- Up to 50 mm² cross sections
- Compliant to USCAR-2 / USCAR-37 (180°)
- Compliant to LV214 / LV215 and USCAR-2 / USCAR-37 (90°)
- Patented squeezing fixture for enhanced anti-vibration performance
- Lever on 180° can be placed on either side



PERFORMANCE



About Aptiv

Aptiv is a global technology company that develops safer, greener and more connected solutions enabling the future of mobility.



Index	Header connector	Mating connector 90°	Mating connector 180°	BOM
A	33351454	35128941	35168081 _A 35268206 _B	1
B	33351455	35165950	35201417 _A 35268207 _B	1

Lower case A and B on mating connector 180° indicates the side lever assist is available

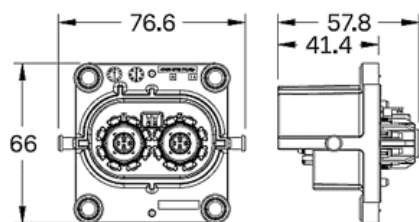
ASSOCIATED PARTS

Part number			Description	BOM
Header connector				
13952636*			1.2 male terminal 0.5 - 0.75 mm ²	2
13954415*			1.2 male terminal 0.25 - 0.35 mm ²	2
Mating connector 90°				
25 mm² Cable	35 mm² Cable	50 mm² Cable		
35172741	35172742 or 35150077		APT-890 female terminal	2
	35172744		Deep Drawn Socket Pin	2
	35142203		Outer Insulation Cap	2
35172724	35172725	35172726	Inner Ferrule	2
35172727	35172728	35172729	Outer Ferrule	2
35172732	35172733	35172734	Cable Seal	2
35149115	35142208	35149113	Cable Strain Relief	2
Mating connector 180°				
25 mm² Cable	35 mm² Cable	50 mm² Cable		
35210072	35168235		APT-800 female terminal	2
	35168087		Shielding Can	2
	35201467		Lamella Insulation Socket	2
	35168234		Lock Retainer	2
35172724	35172725	35172726	Inner Ferrule	2
35168227	35168228	35168229	Inner Ferrule	2
35172732	35172733	35172734	Cable Seal	2
35149115	35142208	35149113	Cable Strain Relief	2

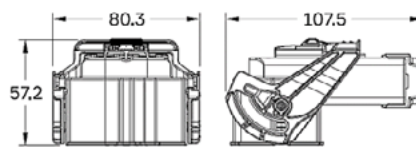
* Non Aptiv terminal, please consult us



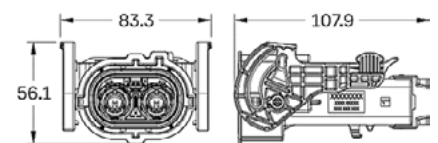
DIMENSION MEASUREMENT SAMPLE



Header Connector



Mating Connector 90°



Mating Connector 180°

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

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Ижевск (3412)26-03-58
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Киров (8332)68-02-04
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Липецк (4742)52-20-81

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Тольятти (8482)63-91-07
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