

POWER.S³ APEX[®] 280 HIGH VOLTAGE CONNECTOR - 35 A 2 way Connectors

Features & benefits

Electrical features

- High voltage 400-750 V
- Max. current carrying capacity 35 A at 70°C with 4mm² wire section

Shielding performances

- EMI/RFI 56 dB Shielding protection at 100 MHz

Terminal system

- APEX 2.8mm 2-piece high performance
- APEX 2.8 terminal system

Mechanical features

- FCI ErgoMate[®] Axial Mating Assist System on female connector
- Easy handling
- Reduced mating forces
- 2-step disconnection feature for safe unmating

- Unique integrated electric interlock
- CPA (Connector Position Assurance)

Environmental features

- Dual sealing feature when mated :
 - External : IPx9K, IP67, 1000 mbars under air pressure
 - Internal : individual cavity sealing with SWS* IP2X B electrical shock protection

Physical features

- Plastic parts : PBT
- Shielding plates: Copper Alloy Tin-plated

Typical applications

- High voltage DC connections like air conditioning, heating systems and others
- Charge plug in-car interconnection



*SWS Single Wire Seal

Technical characteristics

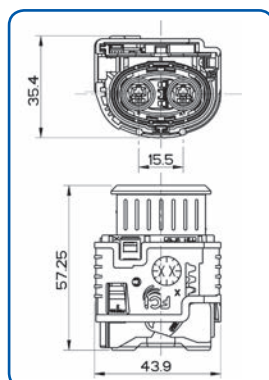
| | | |
|--------------------------------|-------------------------------|-------------------|
| Voltage | | 400 - 750 V |
| Max. current carrying capacity | Wire section 4mm ² | 35 A at 70°C |
| Sealing protection | | IP67 & IPx9K |
| Electrical shock protection | | IP2XB |
| Temperature range | | -40°C to + 125 °C |
| Terminal insertion force | APEX280 | 20 N max. |
| | DCS-2 1.5mm (Interlock) | 12 N max |
| Terminal retention force | APEX280 | 100 N min. |
| | DCS-2 1.5mm (Interlock) | |
| Connector mating force | | < 60 N |
| Shielding performance | at 100 MHz | 56 dB |

Part Numbers : Code1

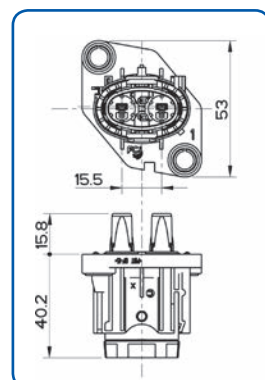
| Gender | Housing P/N |
|----------------------------|-------------|
| Female/Plug (black slider) | F083110 |
| Male/Header | F873110 |

Part Numbers : Code2

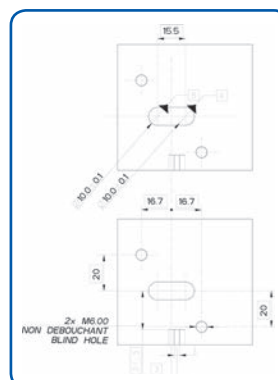
| Gender | Housing P/N |
|----------------------------|-------------|
| Female/Plug (brown slider) | F183110 |
| Male/Header | F973110 |



Female plug (code 1)

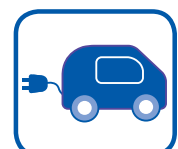


Male header (code 1)



Header interface (code 1)

Dimensions in mm

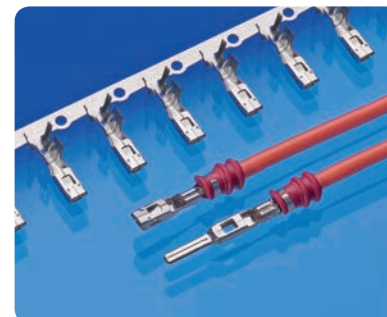


EV/HEV

POWER.S³ APEX[®] 2.8mm TERMINALS

Features

- High current carrying capacity
- 2-piece APEX[®] terminal technology
- Lanceless terminal
- High normal force - low insertion force contacts
- Tin plating
- Single wire seal version



Technical characteristics

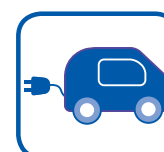
| | | |
|------------------------------------|---------|--------|
| Blade range | | 2.8 mm |
| Contact resistance | | < 2 mΩ |
| Contact mating force | | < 7 N |
| Contact unmating force | | < 5 N |
| Maximum current carrying capacity* | at 70°C | 35 A |

*with 4 mm² wire section

Part Numbers for APEX 280 connectors

| Type of terminal | Terminal P/ N | Single Wire Seal P/N | Cable wire section |
|--|---------------|----------------------|------------------------------|
| Female terminals SWS*, Tin plated | 54001404 | C012400 | 2.5 mm ² (AWG 10) |
| Female terminals SWS*, Tin plated | 54001202 | C302400 | 4 mm ² (AWG 12) |
| Male terminals SWS*, Tin plated | F808800 | C012400 | 2.5 mm ² (AWG 10) |
| Male terminals SWS*, Tin plated | 54001027 | C302400 | 4 mm ² (AWG 12) |
| DCS-2 1.5 mm male Interlock, Gold plated | 60100734 | 60993913 | 0.5 mm ² |
| | 60100734 | 60993928 | > 0.5-1.00 mm ² |

*SWS Single Wire Seal



EV/HEV