

# 28WR2686M

## Specifications

| Attribute                                  | Value                                                                                                                     |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Electrical Performance                     |                                                                                                                           |
| Rated Current                              | 5A to 15A per pin (highly dependent on wire gauge utilization; dropping as density increases to manage thermal build-up). |
| Rated Operating Voltage                    | 250V to 400V AC/DC.                                                                                                       |
| Withstanding Voltage / Dielectric Strength | 1,000V AC for 1 minute.                                                                                                   |
| Insulation Resistance                      | >= 1000 MOhm at 500V DC.                                                                                                  |
| Contact Resistance                         | <= 5 mOhm max per pin path.                                                                                               |
| Mechanical & Structural Specs              |                                                                                                                           |
| Total Position Count                       | 20-Pin layout (multi-row configuration contained within the shell core).                                                  |
| Connector Gender                           | Male Plug (fitted with individual exposed male terminal pins).                                                            |
| Mating Style                               | Threaded Coupling with a knurled external collar to secure tight metal-to-metal seating.                                  |
| Termination Style                          | Solder Cups integrated behind the face insert to anchor individual harness wires.                                         |
| Shell Diameter Classification              | Typically an M28 or M30 size shell (~28mm to 30mm diameter cutout envelope) to house a 20-pin core securely.              |
| Material & Environmental Tolerances        |                                                                                                                           |
| Shell Material                             | Zinc Base Alloy finished with a corrosion-resistant chrome or nickel plating layer.                                       |
| Insert Core Material                       | Reinforced Nylon (PA66+GF20) or high-temp Bakelite providing extreme insulation properties.                               |
| Contact Pins Material                      | Solid Copper Alloy / Brass base, finished with high-conductivity silver or gold plating to eliminate contact oxidizing.   |
| Ingress Protection Level                   | IP55 up to IP65 once properly mated (dust-protected and resistant to splashing water/mud common on utility tracks).       |
| Thermal Range                              | -20°C to +85°C operating ceiling.                                                                                         |
| Mechanical Lifecycle                       | Guaranteed up to 500 complete mating cycles without contact surface degradation                                           |