

DC Connector Selection Checklist — 25 Points

#	Parameter	Check / Question	Pass/Fail	Notes
ELECTRICAL				
1	Rated Voltage	Does connector voltage rating exceed max output voltage with margin?		
2	Rated Current (Continuous)	Is connector rated for continuous load at max ambient		
3	Rated Current (Peak)	If pulsed load: can connector handle peak current?		
4	Contact Resistance	Is contact resistance low enough for acceptable I ² R		
5	Cable Gauge	Does cable gauge support current at max cable length?		
6	Voltage Drop	Is voltage drop at load within tolerance at worst-case current?		
7	Polarity	Is polarity clearly defined and documented (center positive/negative, pin assignment)?		
MECHANICAL				
8	Outer Diameter	Does connector OD match mating jack specification?		
9	Inner Diameter	Does connector ID match mating pin specification?		
10	Mating Cycles	Is connector rated for expected number of insertions?		
11	Locking Mechanism	Is locking required for vibration or user-handling environment?		
12	Strain Relief	Does connector assembly include proper strain relief?		
13	Cable Exit Angle	Is straight or right-angle exit compatible with enclosure design?		
14	Panel Space	Does connector footprint fit within enclosure		
15	Keying / Polarization	Is connector keyed to prevent incorrect insertion?		
ENVIRONMENTAL				
16	Operating Temperature	Is connector rated for product's max ambient		
17	IP Rating	Does connector IP rating match installation environment (indoor/outdoor/washdown)?		
18	Vibration Resistance	Is connector tested or rated for vibration in application?		
19	Chemical Resistance	Will connector materials resist oils, solvents, or cleaning agents in environment?		
COMPLIANCE & INTEGRATION				
20	UL/ENEC Certification	Is connector assembly certified to applicable safety standard?		
21	Medical Certification (IEC 60601-1)	For medical: does connector meet leakage/creepage requirements?		
22	RoHS / REACH	Is connector assembly RoHS/REACH compliant?		
23	Customization Available	Can connector be customized (length, angle, gauge, color, labeling)?		
24	Sample Lead Time	What is lead time for first samples (connector + full assembly)?		
25	Supplier Verification	Has connector manufacturer been audited for quality?		