



## **Job Description**

**Job Title:** Electrical Design Engineer  
**Department:** Engineering  
**Reports to:** Vice President, Engineering  
**FLSA status:** Exempt/Salary

### **SUMMARY**

Works as part of a project team in the design, development and qualification of new products or modification of existing products. This may include design and validation of analog hardware, digital hardware, embedded software and test systems. May lead a project or direct a project module at the discretion of engineering management. Adheres to and maintains compliance to SOR process and procedure. Provides technical assistance to sales, manufacturing, quality or the customer.

### **REASONABLE ACCOMMODATIONS STATEMENT**

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. Reasonable Accommodations may be made to enable qualified individuals with disabilities to perform the essential functions.

### **EDUCATION AND EXPERIENCE**

- Bachelor of Science Degree in Electrical from an ABET accredited program.
- Minimum of 3 years relevant design experience ideally involving design for small to medium production volumes of instrumentation for the process industries.

### **ESSENTIAL FUNCTIONS STATEMENTS**

- Works as part of a project team in the design, development and qualification of a new product, or the enhancement or modification of an existing product.
- When leading a project or a project module, has authority and responsibility for schedule, budget, and deliverables.
- Acts as point of contact for project lead engineer and SOR senior management for all aspects of the project.
- Holds review meetings, design review meetings and presents project status as required.
- Researches, identifies, and negotiates with vendors for material, equipment or other supplies relating to the project activity.
- Provides technical support to sales, manufacturing, quality, or the customer (including site visits).
- Writes and updates procedures in accordance with company requirements (including ISO 9001 system) and trains affected personnel on changes.

- All other functions/responsibilities assigned by the manager.

### **REQUIRED SKILLS**

- Some experience in design and implementation of analog and/or digital hardware – ideally for low-powered applications that are typical in instrumentation.
- Knowledge, and ideally some experience in the use circuit analysis and simulation tools.
- Knowledge, and ideally some experience with electronic packaging techniques.
- Knowledge and experience with PC Board Layout software.
- Knowledge of software life-cycle models and validation (proof of correctness) methodology will be useful.
- Proven ability to design, configure, code and document embedded software in accordance with recognized quality methodologies and standards.
- Proficient in C and/or C++.
- Some understanding and familiarity with pressure and level sensing technologies applied in the markets served by SOR.
- Familiar with electronic lab test equipment (e.g., power supplies, frequency analyzers, DSO, pressure raising equipment, etc.)
- Computer literate: MS Word, Excel, Power Point.
- Excellent verbal and written communication skills.
- Understand engineering drawings that conform to relevant national and international standards.
- Some familiarity with working within a project environment.
- Has worked within an ISO-9001 compliant quality system or is familiar with the fundamental concepts.
- Hands on ability – able to assemble prototypes and fabricate prototype parts (in small quantities) if required.
- Mathematical skills consistent with bachelor's degree in engineering
- Statistical Techniques: good understanding of fundamental statistics, DOE, SPC and hypothesis testing will be useful.

### **SUPERVISORY RESPONSIBILITIES**

- Assigns, delegates, and monitors activities of project team when controlling a project or a project module.

### **POSITION QUALIFICATIONS**

#### **Competency Statements**

- Personal Attitude and Integrity – Ability to display a positive attitude regarding work and co-workers.
- Judgment/Decision Making – Ability to make thoughtful decisions. Ability to accept accountability.
- Dependability – Ability to meet work standards and attendance requirements of the position.
- Quality – Ability to actively support SOR quality standards.

- Problem Solving/Implementation – Ability to deal with varying workload requirements, manages change effectively. Organizes tasks in a logical sequence and identifies resources required for work plans.

**PHYSICAL DEMANDS**

- Required to report to work punctually as scheduled and to work all scheduled hours and any required overtime.
- May need concentrated mental and/or visual attention that must be maintained for sustained periods of time.

***Physical Demands***

	<b><i>Lift/Carry</i></b>	<b><i>Push/Pull</i></b>
<u>  </u> O Stand	<u>  </u> O 10 lbs. or less	<u>  </u> O 12 lbs. or less
<u>  </u> O Walk	<u>  </u> O 11-20 lbs	<u>  </u> O 13-25 lbs
<u>  </u> O Handling / Fingering	<u>  </u> O 21-50 lbs.	<u>  </u> N 26-40 lbs.
<u>  </u> O Reach outward		
<u>  </u> O Reach above shoulder		
<u>  </u> O Climb		
<u>  </u> O Crawl		
<u>  </u> O Squat or kneel.		
<u>  </u> O Bend		

***Other Physical Requirements***

***Ability to wear Personal Protective Equipment (PPE)***

- N Respirator
- O Ear protection
- O Safety glasses
- N Steel-toed safety shoes/boots
- O Other – FACE SHIELD

N (Not Applicable) Activity is not applicable to this occupation.

O (Occasionally) Position requires this activity up to 33% of the time (0 - 2.5+ hrs./day)

F (Frequently) Position requires this activity from 33% of the time (2.5 – 5.5+ hrs./day)

C (Constantly) Position requires this activity more than 66% of the time (5.5+ hrs./day)

**WORK ENVIRONMENT**

- Noise – low in office – occasionally moderate to high in lab or manufacturing areas.
- Lighting – good.
- Temperature – office environment.
- Hazardous duty – occasional involvement with test apparatus in lab that may include high pneumatic or hydraulic pressures in addition to extremes of temperature and high voltages and exposures to chemicals. Additionally, may be exposed to similar hazards in manufacturing or on-site visits.
- Radiation – occasional and minimal exposure when visiting nuclear power plants.

**REQUIRED TRAINING**

All required training is determined by the department supervisor and/or manager. Procedures critical to this position can be identified as such on the Department Training Matrixes which are located in the Human Resources Department.

**COMPANY STATEMENT**

The Company has reviewed this job description to ensure that essential functions and basic duties have been included. It is intended to provide guidelines for job expectations and the employee's ability to perform the position described. It is not intended to be construed as an exhaustive list of all functions, responsibilities, skills and abilities. Additional functions and requirements may be assigned by supervisors/managers as deemed appropriate. This document does not represent a contract of employment, and the Company reserves the right to change this job description and/or assign tasks for the employee to perform, as the Company may deem appropriate.