|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No. | Input | Interface | Count | Pins per Input | Total Pins |
| 1 | Ambient Temperature Sensor (SHT15) | I2C | 1 | 2 | 2 |
| 2 | Vibration Sensor (801S) | 1 | 2 |
| 3 | Pressure Sensor (BMP180) | 1 | 2 |
| 4 | Split-Core Current Sensors | ADC | 4 | 1 | 4 |
| 5 | Probe RTD Temperature Sensor | 1 | 2 | 2 |
| 6 | MODBUS RS-485 RTU | UART | 1 | 4 | 4 |
|  | Total |  |  |  | 12 |

**Generic External Sensor Interfaces for SSN**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No. | Input | Interface | Count | Pins per Input | Total Pins |
| 1 | Offloaded Ethernet Chip (W5500) | SPI | 1 | 5 | 5 |
| 2 | Programming/Debugging | UART | 1 | 4 | 4 |
| 3 | SIMCOM 4G-LTE Module | 1 | 8 | 8 |
|  | Total |  |  |  | 17 |

**On-board interfaces for ESP32 MCU**