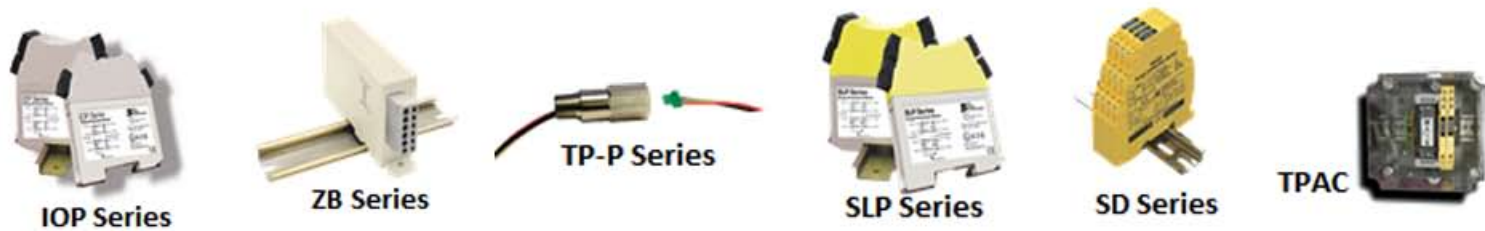


A dramatic night photograph of an industrial tower, possibly a distillation column, illuminated by its own lights. The tower is surrounded by several tall, dark metal lattice structures. A bright, jagged lightning bolt strikes the tower from the left, with smaller bolts branching out across the dark blue sky. The scene conveys a sense of power and potential hazard.

Surge Protection Guide



Instructions:

1. Select application from Table 1
2. Select Control Cabinet End or Transmitter End from Table 1
3. Proceed to referenced page and section that matches your application
4. Select Hazardous or Non-Hazardous Area products and verify operating voltage show in the table

Note: The above should now give you a range of products you can select from.
Further selection detail follows below:

5. Select number of wires to be protected per unit. This can reduce the cost per loop to be protected.
6. Select type of connector

Note: you should now go to the individual data sheets and price list of the products selected for further detail and competitive advantages.

Table of Contents

| Application | Page # |
|---|---------------|
| 4-20mA and HART 24VDC + Analog and Digital inputs/outputs (Controller End) | Page 1 |
| 4-20mA and HART 48VDC + Analog and Digital inputs/outputs (Controller End) | Page 1 |
| 4-20mA and HART 24/48VDC + Analog and Digital inputs/outputs (Transmitter End) | Page 2 |
| 4-20mA and HART 24/48VDC + Analog and Digital inputs/outputs (Transmitter End) (TP Pipe) | Page 2 |
| 24VDC + RS485 Combination (4 Wire) (Transmitter End) | Page 2 |
| FIELDBUS Trunk or Spur | Page 3 |
| FIELDBUS (Transmitter End) | Page 3 |
| FIELDBUS (Transmitter End) (With Terminator included) | Page 3 |
| FIELDBUS (Transmitter End) (No Extra Conduit Entry Required) | Page 3 |
| Combination AC and Data (Transmitter End) (240 and 120VAC Applications) | Page 3 |
| RTD (Resistance Temperature Detectors) 3Wire | Page 4 |
| THC (Thermocouple), Photocells, mV sources, and turbine flowmeters. | Page 4 |
| Analog Outputs - Controller Outputs (I/P converters) | Page 4 |
| Digital (on/off) inputs - Switches | Page 4 |
| Digital (on/off) outputs - Alarms, LED's solenoids valves, etc. | Page 5 |
| Telecommunications (PSTN) | Page 5 |
| AC Control Lines | Page 5 |
| 3 Wire Transmitters or Sensors (Controller End) | Page 5 |
| Serial Communications RS232 | Page 5 |
| Serial Comm. RS422 & RS485 | Page 5 |
| Allen Bradley Data Highway Plus | Page 5 |
| Modbus & Modbus Plus | Page 6 |
| Profibus DP (Controller End) | Page 6 |
| Profibus PA | Page 6 |
| CanBus | Page 6 |
| ControlNet | Page 6 |
| DeviceNet | Page 6 |
| Ethernet Standard CAT 6 | Page 6 |
| Ethernet Industrial CAT 6 | Page 6 |
| PoE Power over Ethernet CAT 6 | Page 6 |
| 120VAC Powered Field Instruments/Flowmeters Plus 4-20mA (TPAC Series) | Page 7 |
| 120 or 240VAC Powered Field Instruments/Flowmeters Plus 4-20mA (TP-AC Series) Non-Hazardous | Page 7 |
| 120 or 240VAC Powered Field Instruments/Flowmeters Plus FF (TP-AC Series) Non-Hazardous | Page 7 |
| 120 or 240VAC Powered Field Instruments/Flowmeters Plus RS485 (TP-AC Series) Non-Hazardous | Page 7 |

Table I

| Application | Part Number | Voltage | Max Load Amps | Surge Capacity | Wires | Connector | Hazardous Area Approved |
|---|-------------|---------|---------------|----------------|---------------|--|-------------------------|
| 4-20mA and HART 24VDC + Analog and Digital inputs/outputs (Controller End) | | | | | | | |
| 4-20mA 24VDC Fused 250mA | SD32 | 32VDC | 250mA | 20kA | 2+G | TS | Yes |
| 4-20mA 24VDC | SD32X | 32VDC | 400mA | 20kA | 2+G | TS | Yes |
| 4-20mA 24VDC(3 Wire Transmitters) | SD32T3 | 32VDC | 400mA | 20kA | 3 | TS | Yes |
| 4-20mA 24VDC 4 Wire 1.5A | SLP32D | 32VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| 4-20mA 24VDC 2 Wire | IOP32 | 32VDC | 675mA | 20kA | 2 | P/TS | Yes |
| 4-20mA 24VDC 4 Wire | IOP32D | 32VDC | 675mA | 20kA | 4 | P/TS | Yes |
| 4-20mA 24VDC 4 Wire (Non-Haz) | ZB24536 | 24VDC | <500mA | 10kA | 4+S | TS | No |
| 4-20mA 24VDC 2 Wire (Non-Haz) | ZB24539 | 24VDC | <500mA | 20kA | 2+S | P/TS | No |
| 4-20mA 24VDC 6 Wire (Non-Haz) | ZB24542 | 24VDC | <500mA | 10kA | 6 | P/TS | No |
| 4-20mA 24VDC 4 Wire+2S (Non-Haz) | ZB24547 | 24VDC | <500mA | 10kA | 4+2S | P/TS | No |
| 4-20mA 24VDC 6 Wire HC (Non-Haz) | ZB91333 | 24VDC | 1.5A | 10kA | 6 | P/TS | No |
| 4-20mA and HART 48VDC + Analog and Digital inputs/outputs (Controller End) | | | | | | | |
| 4-20mA 48VDC Fused 250mA | SD55 | 55VDC | 250mA | 20kA | 2+G | TS | Yes |
| 4-20mA 48VDC | SD55X | 55VDC | 400mA | 20kA | 2+G | TS | Yes |
| 4-20mA 48VDC 4 Wire+2S (Non-Haz) | ZB24554 | 48VDC | <500mA | 10kA | 4+2S | P/TS | No |
| 4-20mA 48VDC 2 Wire (Non-Haz) | 90651 | 48VDC | <500mA | 20kA | 2+S | P/TS | No |
| 4-20mA 48VDC 6 Wire (Non-Haz) | 91515 | 48VDC | <500mA | 10kA | 6 | P/TS | No |
| | | | | | | | |
| | | | | | G = Ground | TS = Terminal Strip | |
| | | | | | S = Shield | P/TS = Pluggable Terminal Strip | |

| Application | Part Number | Voltage | Max Load | Surge Capacity | Wires | Connector | Hazardous Area |
|---|--------------|---------|----------|----------------|-------|-----------|----------------|
| 4-20mA and HART 48/24VDC + Analog and Digital inputs/outputs (Transmitter End) TP Series | | | | | | | |
| TP48-N 2 wire 1/2" NPT (Non-Haz) | TP48-N | 48VDC | N/A | 20kA | 2 | Leads | No |
| TP48-N 2 wire 20mm ISO (Non-Haz) | TP48-N | 48VDC | N/A | 20kA | 2 | Leads | No |
| TP48-I 2 wire 20mm ISO (Non-Haz) | TP48-I | 48VDC | N/A | 20kA | 2 | Leads | No |
| TP48-G 2 wire 1/2" BSP (Non-Haz) | TP48-G | 48VDC | N/A | 20kA | 2 | Leads | No |
| TP48-N 3 wire 1/2" NPT (Non-Haz) | TP48-3-N | 48VDC | N/A | 20kA | 3 | Leads | No |
| TP48-I 3 wire 20mm ISO (Non-Haz) | TP48-3-I | 48VDC | N/A | 20kA | 3 | Leads | No |
| TP48-G 3 wire 1/2" BSP (Non-Haz) | TP48-3-G | 48VDC | N/A | 20kA | 3 | Leads | No |
| TP48-N 4 wire 1/2" NPT (Non-Haz) | TP48-4-N | 48VDC | N/A | 20kA | 4 | Leads | No |
| TP48-I 4 wire 20mm ISO (Non-Haz) | TP48-4-I | 48VDC | N/A | 20kA | 4 | Leads | No |
| TP48-G 4 wire 1/2" BSP (Non-Haz) | TP48-4-G | 48VDC | N/A | 20kA | 4 | Leads | No |
| | | | | | | | |
| TP48-N 2 wire 1/2" NPT (Hazardous) | TP48-N-NDI | 48VDC | N/A | 20kA | 2 | Leads | Yes |
| TP48-I 2 wire 20mm ISO (Hazardous) | TP48-I-NDI | 48VDC | N/A | 20kA | 2 | Leads | Yes |
| TP48-G 2 wire 1/2" BSP (Hazardous) | TP48-G-NDI | 48VDC | N/A | 20kA | 2 | Leads | Yes |
| TP48-N 3 wire 1/2" NPT (Hazardous) | TP48-3-N-NDI | 48VDC | N/A | 20kA | 3 | Leads | Yes |
| TP48-I 3 wire 20mm ISO (Hazardous) | TP48-3-I-NDI | 48VDC | N/A | 20kA | 3 | Leads | Yes |
| TP48-G 3 wire 1/2" BSP (Hazardous) | TP48-3-G-NDI | 48VDC | N/A | 20kA | 3 | Leads | Yes |
| TP48-N 4 wire 1/2" NPT (Hazardous) | TP48-4-N-NDI | 48VDC | N/A | 20kA | 4 | Leads | Yes |
| TP48-I 4 wire 20mm ISO (Hazardous) | TP48-4-I-NDI | 48VDC | N/A | 20kA | 4 | Leads | Yes |
| TP48-G 4 wire 1/2" BSP (Hazardous) | TP48-4-G-NDI | 48VDC | N/A | 20kA | 4 | Leads | Yes |
| | | | | | | | |
| 4-20mA and HART 24VDC + Analog and Digital inputs/outputs (Transmitter End) (No Extra Conduit Entry Req) | | | | | | | |
| TP48-N 2 wire 20mm ISO (Non-Haz) | TP-P48-N | 48VDC | N/A | 20kA | 2 | Leads | No |
| TP48-I 2 wire 20mm ISO (Non-Haz) | TP-P48-I | 48VDC | N/A | 20kA | 2 | Leads | No |
| TP48-G 2 wire 1/2" BSP (Non-Haz) | TP-P48-G | 48VDC | N/A | 20kA | 2 | Leads | No |
| TP48-N 2 wire 1/2" NPT (Hazardous) | TP-P48-N-NDI | 48VDC | N/A | 20kA | 2 | Leads | Yes |
| TP48-I 2 wire 20mm ISO (Hazardous) | TP-P48-I-NDI | 48VDC | N/A | 20kA | 2 | Leads | Yes |
| TP48-G 2 wire 1/2" BSP (Hazardous) | TP-P48-G-NDI | 48VDC | N/A | 20kA | 2 | Leads | Yes |
| | | | | | | | |
| 24VDC + RS485 Combination (4 Wire) (Transmitter End) | | | | | | | |
| TP24/7-N 4 wire 20mm ISO (Non-Haz) | TP24/7-N | 24/7VDC | N/A | 20kA | 4 | Leads | No |
| TP24/7-I 4 wire 20mm ISO (Non-Haz) | TP24/7-I | 24/7VDC | N/A | 20kA | 4 | Leads | No |
| TP24/7-G 4 wire 1/2" BSP (Non-Haz) | TP24/7-G | 24/7VDC | N/A | 20kA | 4 | Leads | No |
| TP24/7-N 2 wire 1/2" NPT (Hazardous) | TP24/7-N-NDI | 24/7VDC | N/A | 20kA | 4 | Leads | Yes |
| TP27/7-I 2 wire 20mm ISO (Hazardous) | TP24/7-I-NDI | 24/7VDC | N/A | 20kA | 4 | Leads | Yes |
| TP24/7-G 2 wire 1/2" BSP (Hazardous) | TP24/7-G-NDI | 24/7VDC | N/A | 20kA | 4 | Leads | Yes |

| Application | Part Number | Voltage | Max Load Amps | Surge Capacity | Wires | Connector | Hazardous Area Approved |
|--|--------------|----------|---------------|----------------|-------|-----------|-------------------------|
| FIELDBUS Trunk or Spur | | | | | | | |
| FP32 2W+S DIN Rail Mounting | FP32 | 32VDC | 1.6A | 20kA | 2 + S | TS | Yes |
| FS32 2W+S Plug-in Mounting | FS32 | 32VDC | 1.6A | 20kA | 2 + S | TS | Yes |
| FIELDBUS (Transmitter End) | | | | | | | |
| TP32-N 2 wire 20mm ISO (Non-Haz) | TP32-N | 32VDC | N/A | 20kA | 2 | Leads | No |
| TP32-I 2 wire 20mm ISO (Non-Haz) | TP32-I | 32VDC | N/A | 20kA | 2 | Leads | No |
| TP32-G 2 wire 1/2" BSP (Non-Haz) | TP32-G | 32VDC | N/A | 20kA | 2 | Leads | No |
| TP32-N 2 wire 1/2" NPT (Hazardous) | TP32-N-NDI | 32VDC | N/A | 20kA | 2 | Leads | Yes |
| TP32-I 2 wire 20mm ISO (Hazardous) | TP32-I-NDI | 32VDC | N/A | 20kA | 2 | Leads | Yes |
| TP32-G 2 wire 1/2" BSP (Hazardous) | TP32-G-NDI | 32VDC | N/A | 20kA | 2 | Leads | Yes |
| FIELDBUS (Transmitter End) (With Terminator included) | | | | | | | |
| TP32T-N 2 wire 20mm ISO (Non-Haz) | TP32T-N | 32VDC | N/A | 20kA | 2 | Leads | No |
| TP32T-I 2 wire 20mm ISO (Non-Haz) | TP32T-I | 32VDC | N/A | 20kA | 2 | Leads | No |
| TP32T-G 2 wire 1/2" BSP (Non-Haz) | TP32T-G | 32VDC | N/A | 20kA | 2 | Leads | No |
| TP32T-N 2 wire 1/2" NPT (Hazardous) | TP32T-N-NDI | 32VDC | N/A | 20kA | 2 | Leads | Yes |
| TP32T-I 2 wire 20mm ISO (Hazardous) | TP32T-I-NDI | 32VDC | N/A | 20kA | 2 | Leads | Yes |
| TP32T-G 2 wire 1/2" BSP (Hazardous) | TP32T-G-NDI | 32VDC | N/A | 20kA | 2 | Leads | Yes |
| FIELDBUS (Transmitter End) (No Extra Conduit Entry Required) | | | | | | | |
| TP-P32-N 2 wire 20mm ISO (Non-Haz) | TP-P32-N | 32VDC | N/A | 20kA | 2 | Leads | No |
| TP-P32-I 2 wire 20mm ISO (Non-Haz) | TP-P32-I | 32VDC | N/A | 20kA | 2 | Leads | No |
| TP-P32-G 2 wire 1/2" BSP (Non-Haz) | TP-P32-G | 32VDC | N/A | 20kA | 2 | Leads | No |
| TP-P32-N 2 wire 1/2" NPT (Hazardous) | TP-P32-N-NDI | 32VDC | N/A | 20kA | 2 | Leads | Yes |
| TP-P32-I 2 wire 20mm ISO (Hazardous) | TP-P32-I-NDI | 32VDC | N/A | 20kA | 2 | Leads | Yes |
| TP-P32-G 2 wire 1/2" BSP (Hazardous) | TP-P32-G-NDI | 32VDC | N/A | 20kA | 2 | Leads | Yes |
| Combination AC and Data (Transmitter End) (240 and 120VAC Applications) | | | | | | | |
| TP-ACFF-N 4 wire 1/2" NPT (Non-Haz) | TP-ACFF-N | 240V/32V | N/A | 20kA | 4 | Leads | No |
| TP-AC420-N 4 wire 1/2" NPT (Non-Haz) | TP-AC420-N | 240V/48V | N/A | 20kA | 4 | Leads | No |
| TP-AC485-N 4 wire 1/2" NPT (Non-Haz) | TP-AC485-N | 240V/7V | N/A | 20kA | 4 | Leads | No |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| Application | Part Number | Voltage | Max Load Amps | Surge Capacity | Wires | Connector | Hazardous Area Approved |
|--|-------------|---------|---------------|----------------|--------|-----------|-------------------------|
| RTD (Resistance Temperature Detectors) 3Wire | | | | | | | |
| SDRTD | SDRTD | 1VDC | <10mA | 20kA | 3 wire | TS | Yes |
| THC (Thermocouple), Photocells, mV sources, and turbine flowmeters. | | | | | | | |
| SD07 (fused) | SD07 | 7VDC | 250mA | 20kA | 2 | TS | Yes |
| SD16 (fused) | SD16 | 16VDC | 250mA | 20kA | 2 | TS | Yes |
| SD07X (non-fused) | SD07X | 7VDC | 400mA | 20kA | 2 | TS | Yes |
| SD16X (non-fused) | SD16X | 16VDC | 400mA | 20kA | 2 | TS | Yes |
| Analog Outputs - Controller Outputs (I/P converters) | | | | | | | |
| SD16 (fused) | SD16 | 16VDC | 250mA | 20kA | 2 | TS | Yes |
| SD32 (fused) | SD32 | 32VDC | 250mA | 20kA | 2 | TS | Yes |
| SD55 (fused) | SD55 | 55VDC | 250mA | 20kA | 2 | TS | Yes |
| SD16X (non-fused) | SD16X | 16VDC | 400mA | 20kA | 2 | TS | Yes |
| SD32X (non-fused) | SD32X | 32VDC | 400mA | 20kA | 2 | TS | Yes |
| SD55X (non-fused) | SD55X | 55VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP07D (non-fused) 4 wire 1.5A | SLP07D | 7VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| SLP16D (non-fused) 4 wire 1.5A | SLP16D | 16VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| SLP32D (non-fused) 4 wire 1.5A | SLP32D | 32VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| IOP32 (non-fused) 2 Wire | IOP32 | 32VDC | 675mA | 20kA | 2 | P/TS | Yes |
| IOP32D (non-fused) 4 Wire | IOP32D | 32VDC | 675mA | 20kA | 4 | P/TS | Yes |
| Digital (on/off) inputs - Switches | | | | | | | |
| SD07 | SD07 | 7VDC | 250mA | 20kA | 2 | TS | Yes |
| SD16 (fused) | SD16 | 16VDC | 250mA | 20kA | 2 | TS | Yes |
| SD32 (fused) | SD32 | 32VDC | 250mA | 20kA | 2 | TS | Yes |
| SD55 (fused) | SD55 | 55VDC | 250mA | 20kA | 2 | TS | Yes |
| SD07X (non-fused) | SD07X | 7VDC | 400mA | 20kA | 2 | TS | Yes |
| SD16X (non-fused) | SD16X | 16VDC | 400mA | 20kA | 2 | TS | Yes |
| SD32X (non-fused) | SD32X | 32VDC | 400mA | 20kA | 2 | TS | Yes |
| SD55X (non-fused) | SD55X | 55VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP07D (non-fused) 4 wire 1.5A | SLP07D | 7VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| SLP16D (non-fused) 4 wire 1.5A | SLP16D | 16VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| SLP32D (non-fused) 4 wire 1.5A | SLP32D | 32VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| IOP32 (non-fused) 2 Wire | IOP32 | 32VDC | 675mA | 20kA | 2 | P/TS | Yes |
| IOP32D (non-fused) 4 Wire | IOP32D | 32VDC | 675mA | 20kA | 4 | P/TS | Yes |

| Application | Part Number | Voltage | Max Load Amps | Surge Capacity | Wires | Connector | Hazardous Area Approved |
|--|-------------|---------|---------------|----------------|-------|-----------|-------------------------|
| Digital (on/off) outputs - Alarms, LED's solenoids valves, etc. | | | | | | | |
| SD32 (fused) | SD32 | 32VDC | 250mA | 20kA | 2 | TS | Yes |
| SD32X (non-fused) | SD32X | 32VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP32D (non-fused) 4 wire 1.5A | SLP32D | 32VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| IOP32 (non-fused) 2 Wire | IOP32 | 32VDC | 675mA | 20kA | 2 | P/TS | Yes |
| IOP32D (non-fused) 4 Wire | IOP32D | 32VDC | 675mA | 20kA | 4 | P/TS | Yes |
| IOP-HC32 (non-fused) High Current | IOP-HC32 | 32VDC | 5A | 20kA | 2 | P/TS | Yes |
| Telecommunications (PSTN) | | | | | | | |
| SDPSTN | SDPSTN | 162 | 550mA | 20kA | 2 | TS | No |
| AC Control Lines | | | | | | | |
| SD150X (120VAC) 2 Wire 3A | SD150X | 120VAC | 3A | 6.5kA | 2 | TS | No |
| SD275X (240VAC) 2 Wire 3A | SD275X | 240VAC | 3A | 6.5kA | 2 | TS | No |
| IOP-AC (240 & 120VAC) 4 Wire 1.75A | IOP-AC | 240&120 | 1.75A | 20kA | 4 | P/TS | No |
| 3 Wire Transmitters or Sensors (Controller End) | | | | | | | |
| SD32T3 (non-fused) 3 Wire | SD32T3 | 32VDC | 400mA | 20kA | 3 | TS | Yes |
| Serial Communications RS232 | | | | | | | |
| SD16R (High Frequency) 2 Wire | SD16R | 16VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP16D (High Frequency) 4 wire | SLP16D | 16VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| SD32R (High Voltage/Freq.) 2 Wire | SD32R | 32VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP32D (High Voltage/Freq.) 4 Wire | SLP32D | 32VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| ZoneBarrier 4 Wire + Shield | ZB24509 | 15VDC | 500mA | 3kA | 4+S | TS | No |
| ZoneBarrier 5 Wire | ZB24510 | 15VDC | 500mA | 3kA | 5 | TS | No |
| Serial Comm. RS422 & RS485 | | | | | | | |
| SD07R (High Frequency) 2 Wire | SD07R | 7VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP07D (High Frequency) 4 wire | SLP07D | 7VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| SD16R (High Voltage/Freq.) 2 Wire | SD16R | 16VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP16D (High Voltage/Freq.) 4 wire | SLP16D | 16VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| ZoneBarrier RS485 - 2 Wire | ZB24518 | 6VDC | 500mA | 10kA | 2+G | TS | No |
| ZoneBarrier RS422 - 4 Wire | ZB24528 | 6VDC | 500mA | 10kA | 4+S | TS | No |
| Allen Bradley Data Highway Plus | | | | | | | |
| SD16R (High Voltage/Freq.) 2 Wire | SD16R | 16VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP16D (High Voltage/Freq.) 4 wire | SLP16D | 16VDC | 1.5A | 20kA | 4 | P/TS | Yes |

| Application | Part Number | Voltage | Max Load Amps | Surge Capacity | Wires | Connector | Hazardous Area Approved |
|--------------------------------------|--------------|---------|---------------|----------------|-------|-----------|-------------------------|
| Modbus & Modbus Plus | | | | | | | |
| SD16R (High Voltage/Freq.) 2 Wire | SD16R | 16VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP16D (High Voltage/Freq.) 4 wire | SLP16D | 16VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| Profibus DP (Controller End) | | | | | | | |
| SD16R (For DP signal wires) | SD16R | 16VDC | 400mA | 20kA | 2 | TS | Yes |
| SLP32D (Optional for 24VDC Power) | SLP32D | 32VDC | 1.5A | 20kA | 4 | P/TS | Yes |
| Profibus DP (Transmitter End) | | | | | | | |
| TP24/7-N 4 wire 20mm ISO (Non-Haz) | TP24/7-N | 24/7VDC | N/A | 20kA | 4 | Leads | No |
| TP24/7-I 4 wire 20mm ISO (Non-Haz) | TP24/7-I | 24/7VDC | N/A | 20kA | 4 | Leads | No |
| TP24/7-G 4 wire 1/2" BSP (Non-Haz) | TP24/7-G | 24/7VDC | N/A | 20kA | 4 | Leads | No |
| TP24/7-N 2 wire 1/2" NPT (Hazardous) | TP24/7-N-NDI | 24/7VDC | N/A | 20kA | 4 | Leads | Yes |
| TP27/7-I 2 wire 20mm ISO (Hazardous) | TP24/7-I-NDI | 24/7VDC | N/A | 20kA | 4 | Leads | Yes |
| TP24/7-G 2 wire 1/2" BSP (Hazardous) | TP24/7-G-NDI | 24/7VDC | N/A | 20kA | 4 | Leads | Yes |
| CanBus | | | | | | | |
| SD07R (High Frequency) 2 Wire | SD07R | 7VDC | 400mA | 20kA | 2 | TS | Yes |
| ControlNet | | | | | | | |
| ZB91446 ZoneBarrier BNC | ZB91446 | 10V | <500mA | 10kA | 1 | BNC | No |
| DeviceNet | | | | | | | |
| SD07R (High Frequency) 2 Wire | SD07R | 7VDC | 400mA | 20kA | 2 | TS | Yes |
| ZB24580 24V Power (10A and less) | ZB24580 | 24V | 10A | 10kA | 2 | P/TS | No |
| Ethernet Standard CAT 6 | | | | | | | |
| ZoneBarrier High Energy CAT 6 | ZB24596 | 5V | 1A | 10kA | 8 | RJ45 | Pending |
| Ethernet Industrial CAT 6 | | | | | | | |
| ZoneBarrier Industrial CAT 6 12V | ZB24598 | 12V | 1A | 10kA | 8 | RJ45 | Pending |
| PoE Power over Ethernet CAT 6 | | | | | | | |
| ZoneBarrier PoE High Energy 48V | ZB24597 | 48V | 1A | 10kA | 8 | RJ45 | Pending |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| Application | Part Number | Voltage | Max Load Amps | Surge Capacity | Wires | Connector | Hazardous Area Approved |
|--|---------------|------------------|---------------|----------------|-------|-----------|-------------------------|
| 120VAC Powered Field Instruments/Flowmeters Plus 4-20mA (TPAC Series) | | | | | | | |
| MA15 plus SD inside NEMA4X Enc Up to 3 additional SDs may be added | TPAC-4W-1/32X | 120VAC/ 32VDC | 15A/ 400mA | 18kA/ 20kA | 2 + 2 | TS | Yes |
| 120 or 240VAC Powered Field Instruments/Flowmeters Plus 4-20mA (TP-AC Series) Non-Hazardous | | | | | | | |
| TP-4wire-240VAC + 4-20mA | TP-AC420-N | 240/48V | N/A | 20kA | 4 | Leads | No |
| 120 or 240VAC Powered Field Instruments/Flowmeters Plus FF (TP-AC Series) Non-Hazardous | | | | | | | |
| TP-4wire-240VAC + Fieldbus | TP-ACFF-N | 240/32V | N/A | 20kA | 4 | Leads | No |
| 120 or 240VAC Powered Field Instruments/Flowmeters Plus RS485 (TP-AC Series) Non-Hazardous | | | | | | | |
| TP-4wire-240VAC + RS485 | TP-AC485-N | 240/7V | N/A | 20kA | 4 | Leads | No |
| | | | | | | | |
| | | | | | | | |