

**Data Line Protectors - continued**

**DIN Rail Mounting - 7mm Wide**



H-102, W=7, D=99

- Innovative design of these lightning barriers results in 7mm wide casing
- Exceptionally high packing densities in cabinets
- Proven hybrid multi-stage circuitry for accurate voltage clamping high peak current diversion
- Easy installation onto standard DIN rail which automatically makes the earth connection
- Applications includes processes using RTDs, THCS, 4-20 mA loops, digital signals, shutdown systems, fire and gas detection systems
- Instantaneous operation when surge is detected
- Automatic reset when surge has been diverted to earth

Peak surge current 10kA (6.5kA SD150X & 275X) Leakage current 5µA (250µA SD150 & 275X)  
 Max line current 400mA Operating temperature -30°C to +75°C  
 In-line resistance 4.2Ω (0.1Ω SD150 & 275X)

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Mfrs. List No.	Clamping Voltage	Order Code	1+	5+	10+	25+	+
SD32X	32V	772-471	6,407.00	5,867.00	5,632.00	5,397.00	--
SD150X	120V (ac rms)	772-495	5,914.00	5,532.00	5,196.00	5,350.00	--
SD275X	240V (ac rms)	772-501	6,289.00	5,883.00	5,526.00	5,350.00	--

**Power Entry Filters**

**Distribution Surge Protectors**



L=90, W=175, H=60

L=176, W=110, H=72

- Provides an economic means of preventing damage to electrical distribution systems from mains borne transient voltages. These can occur when capacitive or inductive loads are switched, or as a result of a nearby lightning strike.
- Housed in an epoxy painted steel case. Designed to meet **BS6651 1992 Appendix C Location Category C - Primary Protection**

Single current handling Max. (8/20µs) 20kA Terminals 16mm<sup>2</sup>  
 Response time <10ns Operating temp -40°C to 70°C

	Single Phase	Three Phase
Voltage rating	230V	400V
Leakage current	200µA	600µA

Mfrs. List No. DSP1BOW=580-120

Mfrs. List No. DSP1BOW=580-120, DSP3-BOW=580-132

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	Order Code	1+	5+	10+
Single Phase	580-120	17,755.00	15,948.00	14,503.00
Three Phase	580-132	31,072.00	27,791.00	26,523.00

**Low Current Mains Protectors**



- Use to protect mains equipment fused at 5A or less from lightning and transient overvoltage damage
- Very low 'let through' voltage between all conductors
- DIN rail mounting, ESP 120-5A & ESP240-5A, with removable foot
- Series connection and long lifetime
- Fully tested to **BS 6651, IEEE C62.41, AS 1768**

Mfrs. List No.	Working Voltage (rms)	Frequency	Max. Operating Current	Peak 'let-through' Voltage	Peak Discharge Current	Peak Discharge Current	Outer Enclosure	Order Code
ESP240-5A.	200-280V	40-60Hz	5A	590V	10kA		-	188-645

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Mfrs. List No.	Dimensions H x W x D	Order Code	1+	5+	10+
ESP240-5A.	38 120 54	188-645	6,383.00	6,064.00	5,745.00

**Mains Distribution Protectors**



- Use on mains distribution systems to protect equipment from lightning and transient overvoltage
- Simple parallel connection makes protectors suitable for all supply currents
- Very low 'let-through' voltage between all conductors
- 3-way visual indication of protector status
- Remote status indication
- Sovtrip™ multiple thermal disconnect system
- Flashing warning of neutral to earth supply faults
- Maintenance free and long lifetime
- Optional **IP66** (WBX 4) and **IP67** (WBX3) enclosures available
- Fully tested to **BS 6651, IEEE C62.41, AS1768**

Mfrs. List No.	Working Voltage (rms)	Frequency	Max. Operating Current	Peak 'let-through' Voltage	Peak Discharge Current	Dimensions (mm)	Order Code
ESP240M1.	200-280V	40-60Hz	5A	600V	30kA	180 x 60 x 60	188-621
ESP415M1.	90150V	4060Hz	5A	390V	10kA	180 x 110 x 60	188-633
WBX3	IP67 enclosure for single phase mains wire-in protector					230 x 85 x 80	188-682
WBX4	IP66 enclosure for 3 phase protector					230 x 160 x 117	188-694

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Mfrs List No.	Protectors	Order Code	1+	5+	10+
ESP240M1.	Single phase	188-621	18,305.00	17,390.00	16,474.00
ESP415M1.	Three phase	188-633	36,609.00	34,779.00	32,948.00
WBX3	Enclosures	188-682	2,125.00	2,048.00	2,015.00
WBX4	Enclosures	188-694	2,600.00	2,508.00	2,467.00

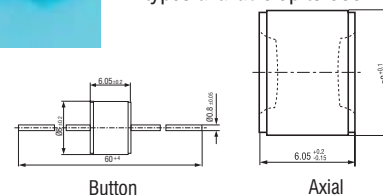
**Gas Discharge Tubes**

**Gas Discharge Tubes - 5kA Ceramic**



- Ceramic insulator surge arresters for overvoltage protection in telecom and control systems
- Button cell, radial and axial lead types available up to 600V

Impulse discharge current: 5kA  
 Insulation resistance: >10GΩ  
 Capacitance: <2pF



D.C Sparkover Voltage	Impulse Sparkover Voltage	Type	Mfrs. List No.	Order Code
90	<600	Button	EC90XN	304-3162
150	<600	Button	N80-A150X	304-3186
230	<700	Button	EC230XN	304-3204
90	<600	Axial	EC90X	304-3174
150	<700	Axial	B88069X880S102	121-8962
230	<700	Axial	EC230X	304-3216
350	<900	Axial	EC350X	304-3228
600	<1300	Axial	EC600X	304-3230
260	<600	Radial	ES260XP	521-2467
300	<600	Radial	ES300XP	521-2479

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Style	Order Code	1+	25+	50+	100+
<b>Button Cell</b>					
EC90XN	304-3162	170.00	148.00	133.00	110.00
N80-A150X	304-3186	18.00	16.00	14.00	11.00
EC230XN	304-3204	151.00	132.00	118.00	97.00
<b>Axial</b>					
EC90X	304-3174	81.00	71.00	63.00	52.00
B88069X880S102	121-8962	140.00	131.00	119.00	110.00
EC230X	304-3216	151.00	132.00	118.00	97.00
EC350X	304-3228	116.00	101.00	91.00	75.00
EC600X	304-3230	116.00	101.00	91.00	75.00
<b>Radial</b>					
ES260XP	NEW 521-2467	161.00	145.00	129.00	113.00
ES300XP	NEW 521-2479	161.00	145.00	129.00	113.00