



Lightning protector for telecommunication cables



# High density and non-instantaneous break type protector with elastic contact socket provided with clip connection structure.

This is the protector for telecommunication cables and the suitable type can be selected according to the application like telephone line, carrier transmission line, digital line, measuring and process control line etc. To the elastic contact socket the newest clip connection structure is adopted. So the size of this non-instantaneous break protector can be minimized.

- High density protector with elastic contact socket, to which the newest clip connection structure is adopted.
- Protector plug can be put in and taken out without instantaneous break of line and without bad effect on the telecommunication line.
- According to the application like telephone line, carrier transmission line, digital line, measuring and process control line etc. the most suitable protector can be selected.
- Monitor terminal is equipped. So monitor test can be done in the state actually installed.
- Due to the adoption of the newest clip structure with high reliability power supply for working is not necessary and for every one a uniformed connection with high reliability is possible.
- Connection of not only single core wire, but also twisted wire is also possible.
- By using of jumper guide not only miswiring can be prevented, but also jumper wiring can be done without taking out of elastic contact Appearance after wiring is also excellent.

## The way of using

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### External figure

#### Figure actually equipped



## Option parts

unit(mm)



0.25A and in case that power supply has pendency characteristic, becomes DC220V, 0.25A. \*2 Possible to use independently of characteristic impedance of the line. However transmission performance shows the measured value at 600 Ω. \*3 Performance of elastic contact socket, in which protector plug is put in, is shown (in the state without plug). \*4 The performance of the protector plug including the insulation coil is shown (only in the case of S-600B type). \*5 Initial max. value means the max. value appeared in the time from the apply of impulse voltage to 10 µs passed. The max. value in operation means the max. value appeared after 10  $\mu$ s passed and under continuous apply impulse voltage. \*6 Under the more lower voltage and current than the given values the following current doesn't appear. \*7 [12] for DC 12V is DC13.5V.

[24] for DC 24V is DC27V. [48] for DC 12V is DC53V.

[65] for DC 12V is DC75V.

# Specification

Type-name				QDP-A2	QDP-B	QDP-HZ	QDP-D	
Type-name according to Japanese standard for electric power D-205				for general use (A) 1a	for general use (A) 2	-	for general use (A) 1a	
Application				for general telephone line	for remote control · carrier transmission line	for signal line (for the equipments with weak current and voltage withstanding)	for general telephone line	
Transmission characteristic	Transmi	ssion frequency band	I (Hz)	DC、16、0.3k~3.4K	0.3k~20K	DC、0.3k~20K	DC、16、0.3k~2M	
	Operatio	Operational attenuation		less than 0.5	less than 0.1			
	Transmi	ssion level		+10dBm(DC70V)	+10dBm	DC48V(DC53V)	+10dBm(DC70V)	
	Impedance ( Ω )			- * 2	600 ± 15%	- * 2	- * 2	
	DC-resistance (one side line) ( $\Omega$ )			less than20	-	5±15%	-	
protection performance to abnormal voltage and current	AC	Line side applied voltage		AC4kV 2 second				
		to ground		less than300V		100V	less than300V	
		between lines		less than300V	less than 15V	100V	less than300V	
	Impulse	Line side applied voltage		1.2/50 µ s 10kV				
		to ground	initial max. value	less than 1500V	less than300V	less than 150V	less than 1,500V	
			in operation	less than20V				
		between lines	initial max. value	less than 1500V	less than 25V	less than 150V	less than 1500V	
			in operation	less than 10V				
	Current	AC		AC4A 2 second				
	Guirent	Impulse		8/20 µ s 4kA				
Indication by specified color				gray	red	yellow	white	

QDP-M I	QDP-DF	QDP-PCM	QDP-TD	QDP-SD1					
for general use (A)2	-	for general use (A) 3	for general use (A) 1b	-					
for carrier transmission line	for DC signal line	for PCM carrier transmission line	for digital exchange line						
DC, $0.3k \sim 150K$	DC、2M	DC、50~2M	DC、16、0.3~400k	DC、0.3~200k					
less th	nan 0.5	less than 1.0(772kHz)	150kHz less than 0.5 400kHz less than 1.5	less than 0.5(600 $\Omega$ ) less than 1.0 (150 $\Omega$ )					
+10dBm(DC140V)	OdBm(DC140V) DC180V		20dBm(l	DC170V)					
— × 2	— * 2	110 ± 20%	150kHz 600、 400kHz 150	600/150					
		less than 10	han20						
AC4kV 2 second									
less than 300V									
less than 10V	less than 300V	less than 1 OV							
1.2/50 μ s 10kV									
less than 1500V	less than 1500V	less tha	an 450V	less than 400V					
less than 20V	less than 500V	less th	an 20V	less than 40V					
less than 20V	less than 1500V	less than 25V							
less than 1 OV	less than 500V	less than 1 OV							
AC4A 2 second	-	AC4A 2 second							
8/20 µ s 4kA									
green	white	yellow	green	white					

- ① Elastic contact socket (QDF-ER type)
- ② QDP type protector (QDP- [00] type)
- ③ Line breaking plug (QDP-CT type) According to the application protector form or clip form can be selected.
- ④-1 DB mount
  - (for mounting on MDF, for 180 mm pitch)
- ④ -2 QDF-PM50 (for wooden board)
- (5) Monitor plug-cord for elastic contact socket.
- 6 Monitor cord for protector (QDF-TC type)
- ⑦ Impact tool (IT type)
- ⑧ Metal fitting for mounting to the DB mount. For mounting the DB mount on MDF this metal fitting is necessary. (Besides T metal fitting is also necessary)
- Metal fitting for grounding(QDF-G type)
- \*1 In case that power supply over lapped with the line has no grounding or has grounding at neutral point with high resistance, transmission level becomes 140V,



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# SHODEN CORPORATION

Head Office 3-8 Taihei 4-chome, Sumida-ku, Tokyo 130-8543 Japan

e-mail: f@.sdn.co.jp