

PRODUCT	DESCRIPTION	PAGES
D50 Series	SPDMDB, 50 AMP RELAY	2 - 6
PHL50 Series	SPDMDB 50-75 AMP, SPDT 2 AMP	7 - 10
E150 Series	SPST NO DM 50 AMP, SPDT 5 AMP	11 - 14

# D50 Characteristics



## General characteristics

### D50

No. of poles	1 Form Z
Volume	45 cm <sup>3</sup> [2.75 in <sup>3</sup> ]
Mass	195 grams [.43 lb. Max]

## Switching characteristics

Operate time @ 25° C	25 ms max.
Release time @ 25° C	25 ms max.
Bounce time @ 25° C	2 ms max.
Mechanical Life (reduced current)	100,000 cycles

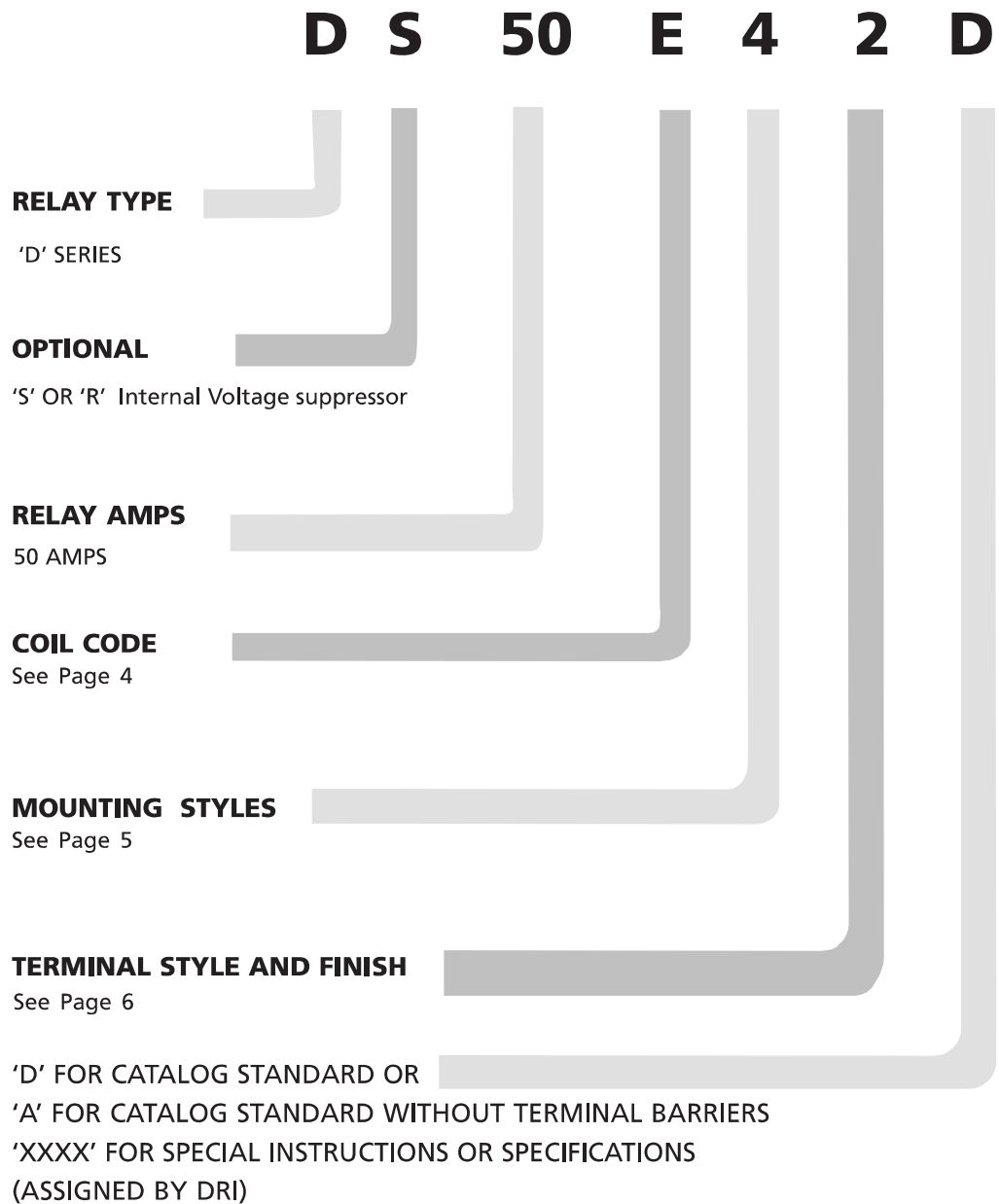
Contact rating	Type of load (High level)	Cycles x 10 <sup>3</sup>	28 Vdc
	Resistive	50	50 amps
	Inductive	50	50 amps
	Motor	50	20 amps
	Lamp	50	20 amps
	Overload current	N/A	400 amps
	Rupture current	N/A	500 amps

## Environmental characteristics

Temperature Range	-70°C to +125°C
Vibration, any axis (Sinusoidal)	15 g 10-2000 Hz
Shock, any axis	25 g 11 ms
Seal	Hermetic (1 x 10 <sup>-8</sup> atm cm <sup>3</sup> /s)

## Electrical characteristics

Contact voltage drop (@ Rated resistive load)	
- Initial	150 mV Max.
- After guaranteed life	175 mV Max.
- Initial	
Dielectric strength @ sea level	Coil to Case All other points
- Initial @ 60Hz	1050 Vrms 1050 Vrms
Insulation Resistance	
- Initial	100 Megohms min. @ 500 Vdc
Reference Military Specifications	MIL-PRF-6106

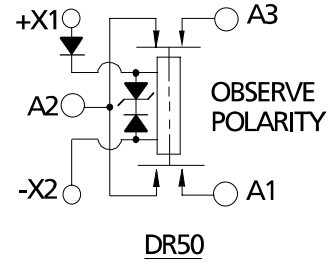
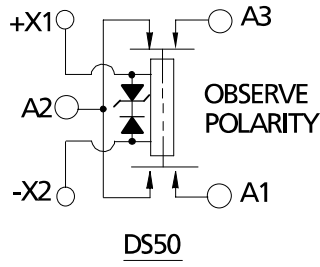
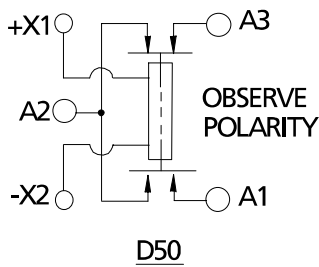


## Coil Characteristics

COIL CODE	D C
	E
Nominal coil voltage	28
Maximum pick-up voltage at 25°C	13,5
Maximum pick-up voltage at 125°C	18
Minimum drop-out voltage at -70°C	1,5
Coil resistance (ohms ± 10% at 25°C)	290
Maximum coil transient suppression (where applicable) VDC	SEE CIRCUIT DIAGRAM

## Circuit Diagram

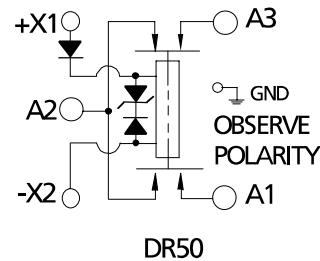
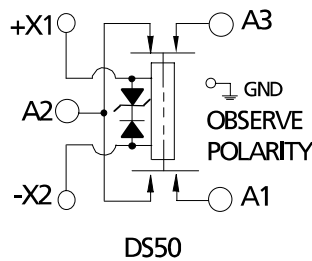
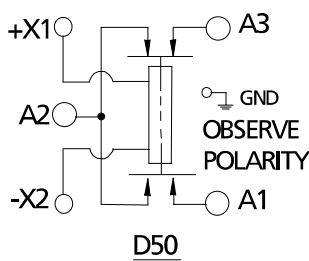
### TERMINAL STYLE 1



INTERNAL VOLTAGE SUPPRESSOR  
(-42 Vdc MAX.)

INTERNAL VOLTAGE SUPPRESSOR  
(-5 Vdc MAX.)

### TERMINAL STYLE 2



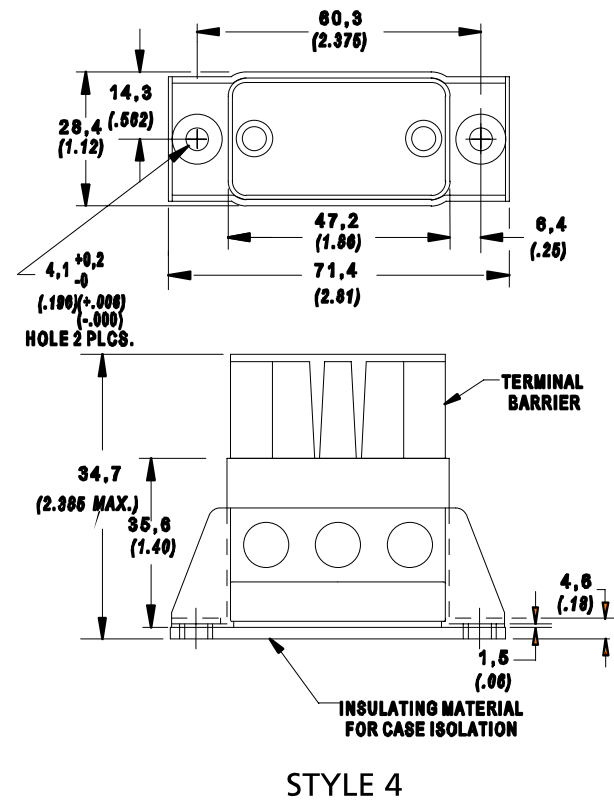
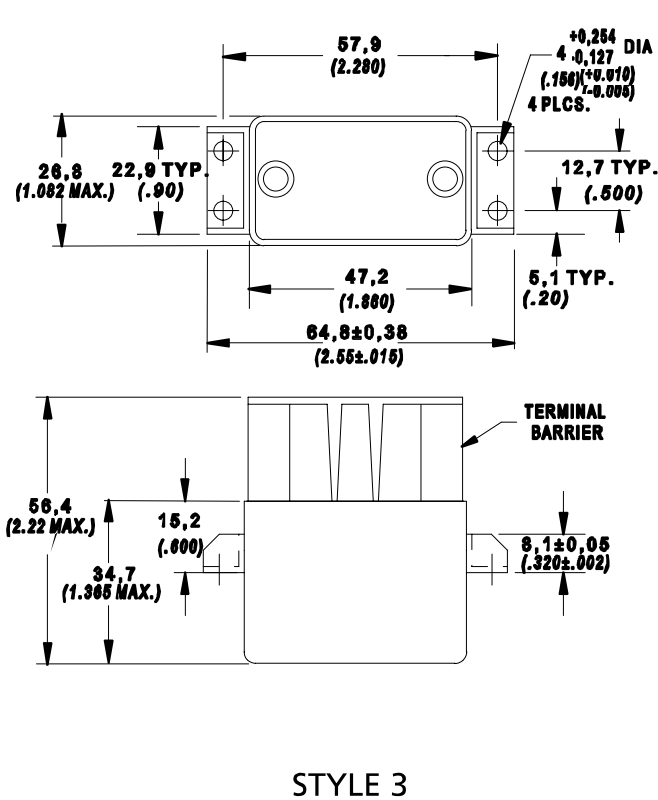
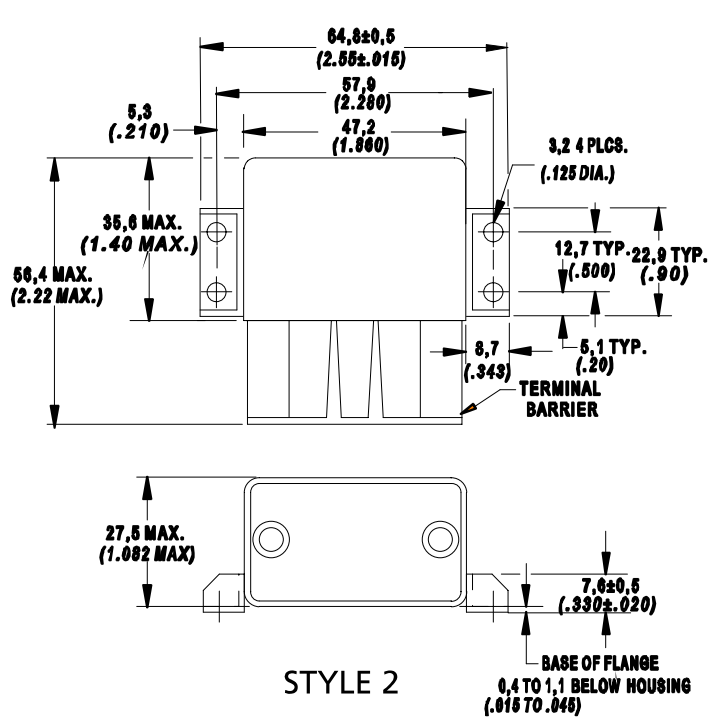
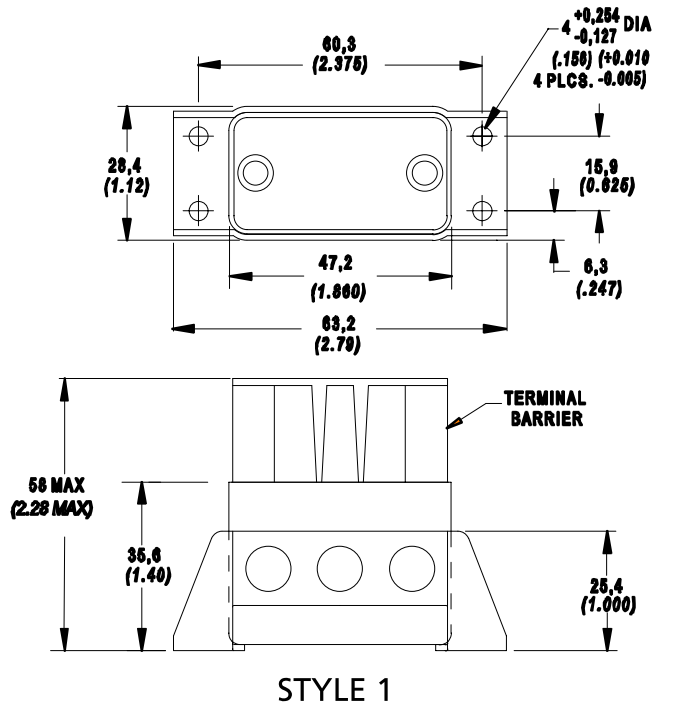
INTERNAL VOLTAGE SUPPRESSOR  
(-42 Vdc MAX.)

INTERNAL VOLTAGE SUPPRESSOR  
(-5 Vdc MAX.)

# D50 Technical Characteristics

## ■ Mounting styles

DIMENSIONS ARE IN MM (IN.)  
UNLESS OTHERWISE SPECIFIED, TOLERANCE IS  $\pm 0,25$  [.010]

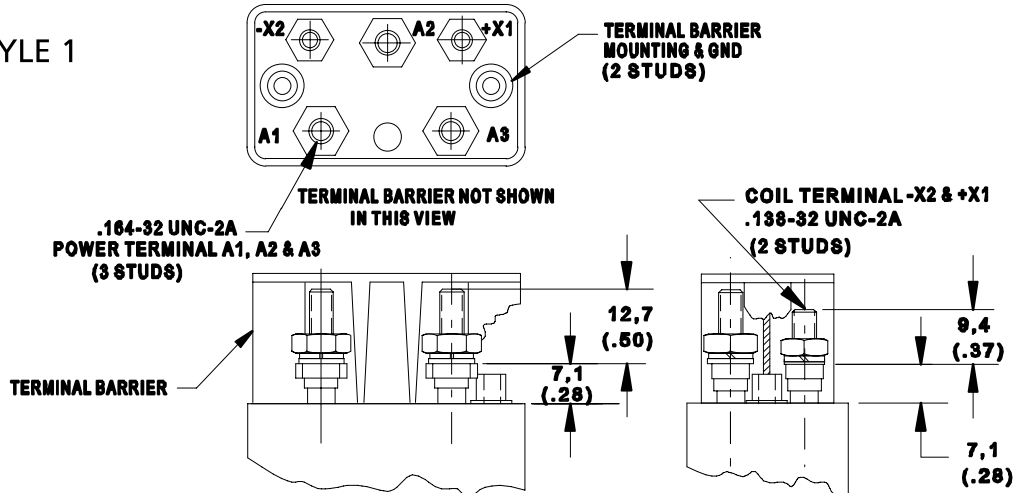


# D50 Technical Characteristics

## Terminal styles

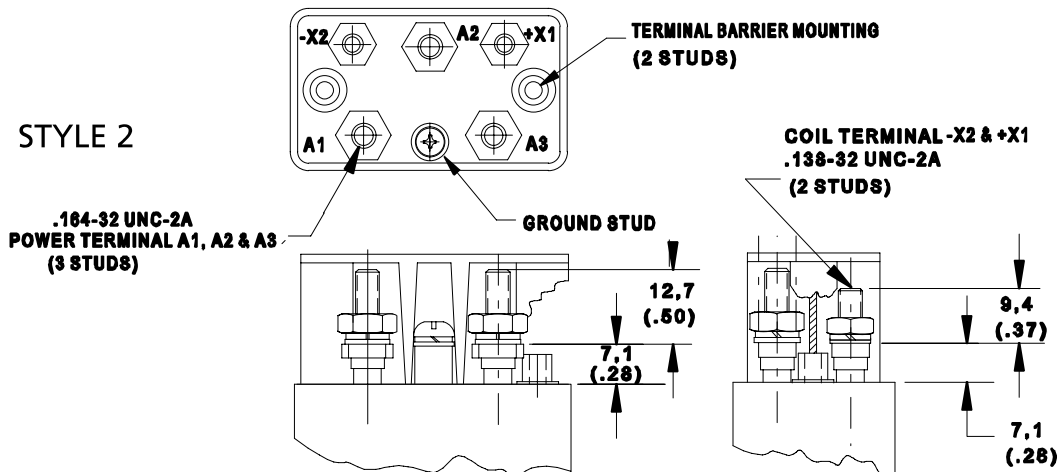
DIMENSIONS ARE IN MM (IN.)  
UNLESS OTHERWISE SPECIFIED, TOLERANCE IS  $\pm 0,25$  [.010]

### STYLE 1



FINISH: TERMINALS, HEADER AND HOUSING NICKEL PLATED

### STYLE 2



FINISH: TERMINALS, HEADER AND HOUSING NICKEL PLATED

### HARDWARE SUPPLIED:

STYLE 1	QTY	STYLE 2	QTY
#6 NUT	2	#6 NUT	
#8 NUT	3	#8 NUT	2
#6 LOCKWASHER	2	#6 LOCKWASHER	3
#8 LOCKWASHER	3	#8 LOCKWASHER	3
#6 FLAT WASHER(NARROW)	2	#6 FLAT WASHER(NARROW)	3
#6 FLAT WASHER(NARROW)	3	#8 FLAT WASHER(NARROW)	3
#6 FILLISTER HEAD SCREW	2	#6 FILLISTER HEAD SCREW	3
* TERMINAL BARRIER	1	#6 PAN HEAD SCREW	2
		* TERMINAL BARRIER	1
			1

\*NOT SUPPLIED WHEN SPECIFYING P/N ENDING WITH 'A'