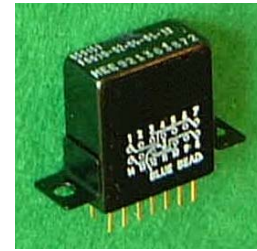


DATA SHEET

Formerly
DEUTSCH LTD
RELAY

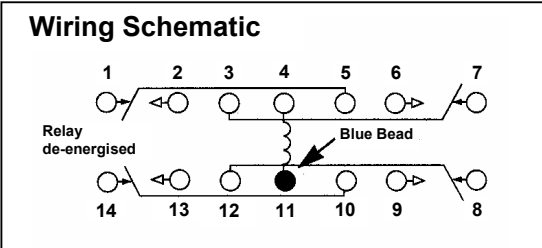
HDD4/BS9151 F0030
4PDT CRYSTAL CAN RELAY



TYPE HDD4

Key Features

- Hermetically Sealed
- BS9000 Approval
- Low level to 1A switching
- Double compartment sealing



Specification

General

Contact Arrangement
Weight
Mating Bases

4 Pole changeover (4PDT) break before make.
18 gm (mounting style 01)
Solder Contacts – Order Part No. 418703
Crimp Contacts – Order Part No. 418538 or 418665

Performance

Contact Rating/Life

1A resistive, 10⁵ operations at 28 VDC
0.35A inductive, 10⁵ operations at 28 VDC
0.5A resistive, 10⁵ operations at 115 VAC, 400 Hz
Low level, 10⁶ operations

Operate Time
Release Time
Bounce Time

5 ms max. at 20°C with nominal voltage (excluding bounce)
5 ms max. at 20°C with nominal voltage (excluding bounce)
3 ms max. at 20°C with nominal voltage

Environmental

Temperature Range
Shock
Vibration

-65°C to +125°C
490 m/s² (50G) for 11 ms
60 to 2000 Hz at 147 m/s² (15g) acceleration
10 to 60 Hz at 1mm amplitude
(Applies to mounting variant 01)

Linear acceleration
Bump
Climatic
Salt Mist

490 m/s² (50g)
4000 bumps at 392 m/s² (40g), 6ms duration. (If applicable)
BS 2011 test Z/ABDM procedure 1
BS 2011 part 2.1 Kb severity 2

Data Sheet No
DSHDD4- 1008

SHEET 1 OF 4

Ordering Information

See sheet 4

Design authority and manufacture by Barnbrook Systems Limited
Barnbrook Systems reserves the right to alter specifications and design without notice

Electrical

Contact Resistance

Code 01 contacts - 70 mΩ max measured with an open circuit voltage of 5V max and current of 10 mA max.

Code 02 contacts - 70 mΩ max measured with an open circuit voltage of 10mV max and current of 10 mA max.

Insulation Resistance

500 MΩ minimum between any two isolated terminals measured at 500 VDC and 20°C

Dielectric Strength

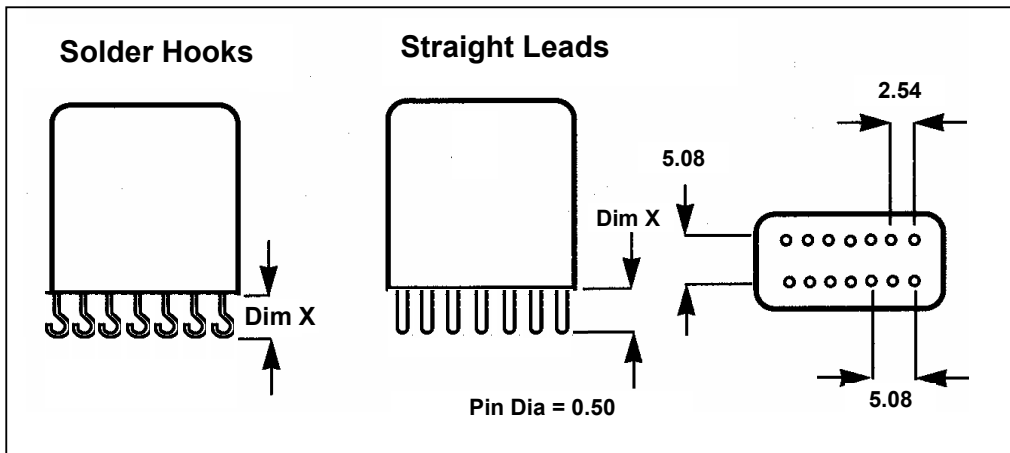
500 VRMS, 50 Hz at sea level
350 VRMS, 50 Hz at 20 millibar (87,000ft) air pressure

Capacitance

Contact to case 1.5 pF
Between open contacts 0.28 pF
Between contact sets 0.1 pF
Coil to case 24 pF

TERMINATION VARIANTS

HD Style	BS Style	Type	Dim.X in mm.
A	-	Straight	7.92
B	-	Straight	12.70
C	13	Straight	25.40
H	11	Hooks	-
L	-	Straight	76.20
S	12	Straight	5.08

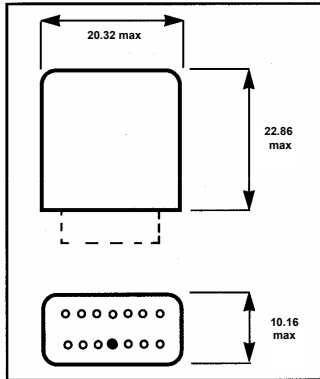


Data Sheet No
DSHDD4- 1008

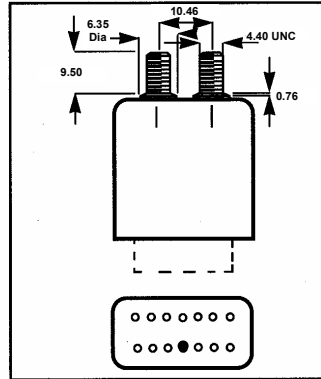
SHEET 2 OF 4

MOUNTING VARIANTS

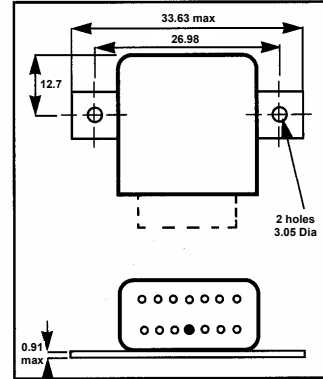
HD Style 01 BS Style 01



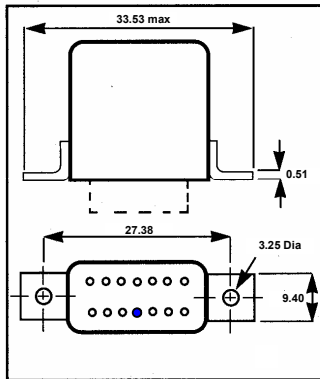
HD Style 15 BS Style 02



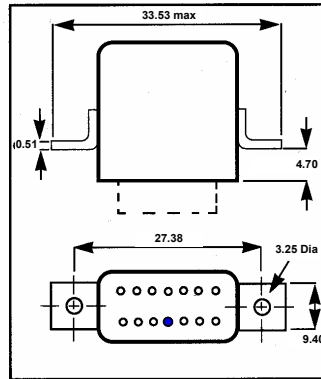
HD Style 09 BS Style 03



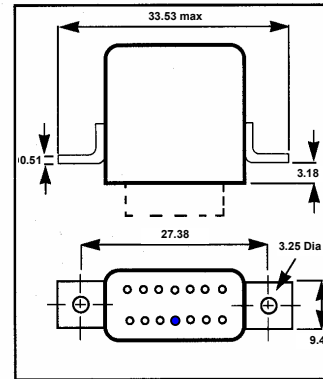
HD Style 02 BS Style 04



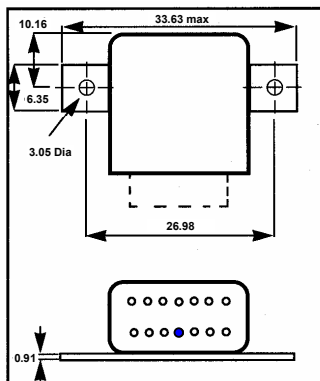
HD Style 06 BS Style 06



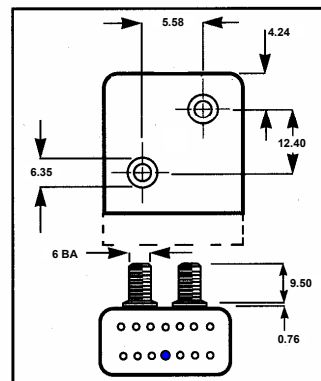
HD Style 03 BS Style 05



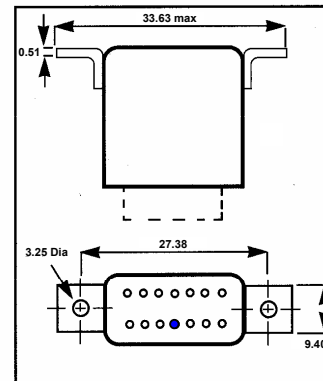
HD Style 07 BS Style 07



HD Style 13 BS Style 09



HD Style 19 BS Style 10



All dimensions are in millimetres
Tolerances ± 0.25 unless otherwise stated

● Blue Bead

Data Sheet No
DSHDD4- 1008

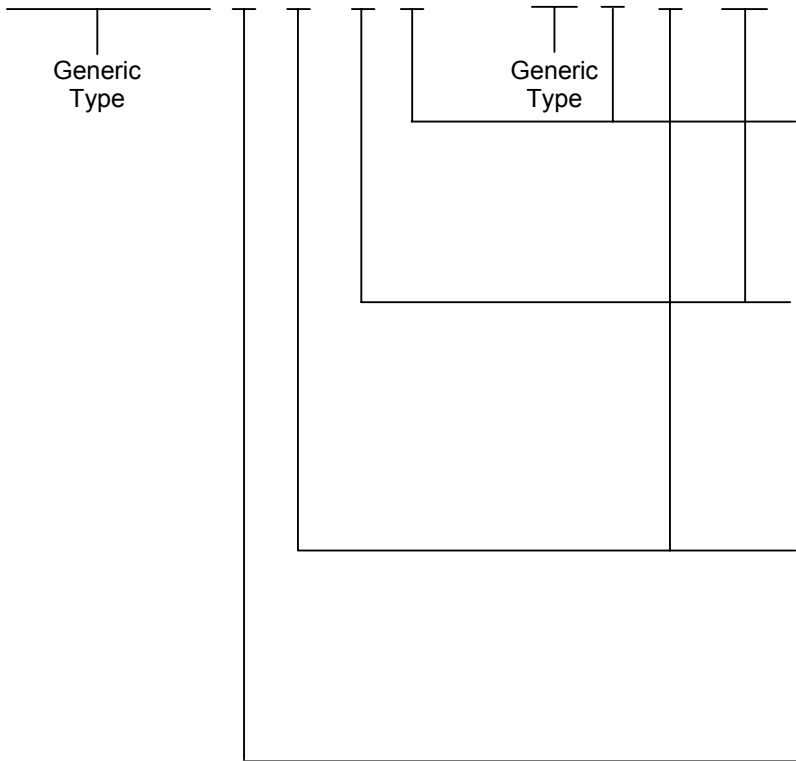
SHEET 3 OF 4

BS Types – example part no.:

BS9151-F0030-02-04-01-12

Barnbrook Types – example part no.:

HDD4S - F2 - H01



Termination Variant	
BS	HD
11	H
12	S
13	C
-	A
-	L

(Refer to page 2)

Mounting Variant	
BS	HD
01	01
02	15
03	09
04	02
05	03
06	06
07	07
09	13
10	19

(Refer to page 3)

Coil Variant	
BS	HD
01	C2
02	E2
03	M2
04	F2
05	J2
06	G2

(Refer to table below)

Contact Rating	
01	Light Duty
02	Low Level Switching

(Refer to page 2)

COIL VARIANTS AND OPERATING CHARACTERISTICS

HD Coil	BS Coil	Nominal Operating Voltage (VDC)	Coil Resistance (Ohms +/- 5% at 20°C)	Must Operate Current (mA)	Must Drop Out Current (mA)
A2	-	1.5	4.0	228	22
B2	-	3.0	15.6	114	11
C2	01	6.0	62.0	56.8	5
D2	-	9.0	140	38.0	3
E2	02	12.0	250	28.4	2
M2	03	18.0	500	20.2	1.5
F2	04	24.0	1000	14.2	1.2
J2	05	32.0	1700	10.7	1.0
G2	06	48.0	4000	7.1	0.7

All values are measured at 25°C

Data Sheet No
DSHDD4- 1008

SHEET 4 OF 4