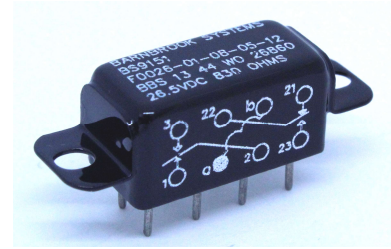


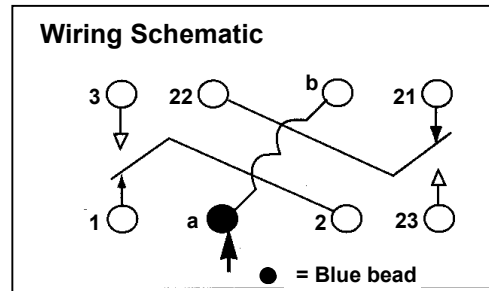
**HDS5/BS9151 F0026
2PDT HALF CRYSTAL CAN RELAY**



Key Features

- Hermetically Sealed
- Low level capability
- Small size for high density packaging

TYPE HDS5



Specification

General

Contact Arrangement
Weight
Mating Bases

2 Pole changeover (2PDT) break before make
8.7 gm (mounting variant 01)
Solder Contacts – Order Part No. 4223-1
Crimp Contacts – Order Part No. 42024

Performance

Contact Rating/Life

2A resistive, 10⁵ operations at 28 VDC
1A resistive, 10⁵ operations at 115 VAC, 400 Hz
Low level, 10⁶ operations (typical 5 VDC, 10 mA)
5 x 10⁷ operations
3.5 ms nominal, 5 ms max (excluding bounce)
1 ms nominal, 5 ms max. (excluding bounce) 01
3 ms max.

Mean Mechanical Life
Operate Time
Release Time
Bounce Time

All measurements at 25°C and nominal voltage

Environmental

Temperature Range
Shock*
Vibration*

-65°C to +125°C
490 m/s² (50g) for 11 ±1ms
60 to 2000 Hz at 196 m/s² (20g) acceleration
10 to 60 Hz at 1.5 mm amplitude

* Applies to mounting style 01

Linear Acceleration
Bump
Climatic
Salt Mist

980 m/s² (100g)
4000 bumps at 390 m/s² (40g) 6ms duration
BS 2011 test Z/ABDM procedure 1
BS 2011 part 2.1 Kb severity 2

Data Sheet No
DSHDS5- 3922

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 - 50 mΩ max measured with an open circuit voltage of 5V max and current of 10 mA.

Code 02 contacts - 50 mΩ max measured with an open circuit voltage of 10mV max and current of 10 mA.

Insulation Resistance

500 MΩ minimum - between any two isolated terminals
500 MΩ minimum - between terminals and case.

Dielectric Strength

Measured at 500 VDC and 25°C
500 VRMS 50 Hz, at sea level between terminals and case, between any two sets of contacts and between open contacts.

Capacitance

350 VRMS 50 Hz, at 20 millibar air pressure, between all terminals and case.

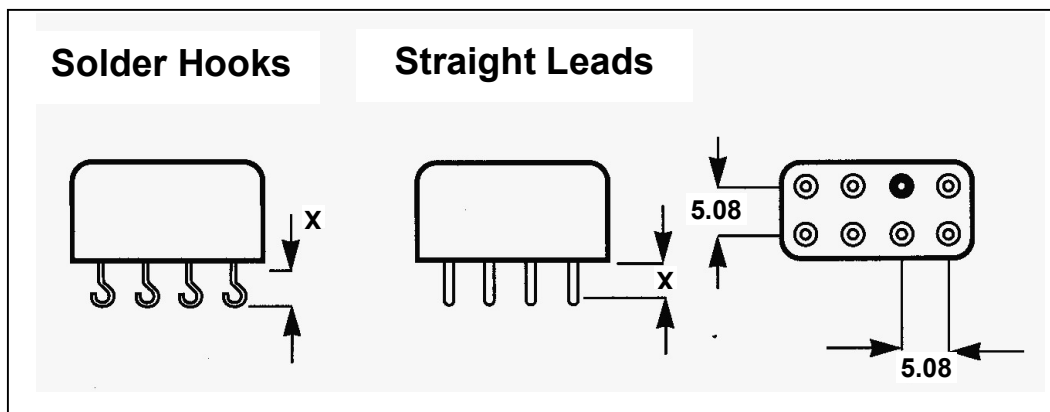
Closed contacts to case	4 pF
Open contacts to case	2 pF
Between contacts of a set	2 pF
Between the two contact sets	4 pF

DEF 5165, Style SM5U

HDS5 relays suitable for use with supply voltages as listed below are specified by the appropriate Style No. /Designation and NATO Stock Number. For performance characteristics, dimensional data, etc. reference should be made to the latest issue of DEF 5165.

TERMINATION VARIANTS

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



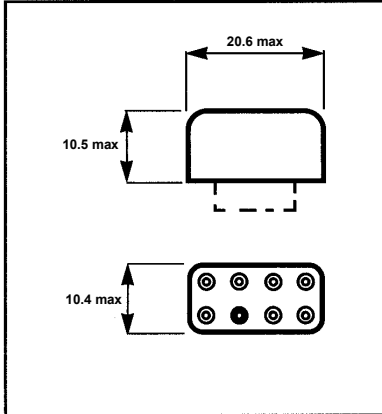
Data Sheet No
DSHDS5- 3922

SHEET 2 OF 4

MOUNTING VARIANTS

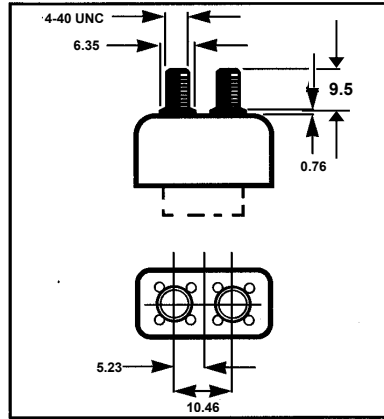
BS Ref 01

HD Ref 21



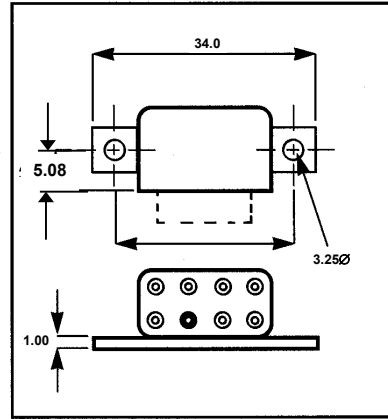
BS Ref 02

HD Ref 26



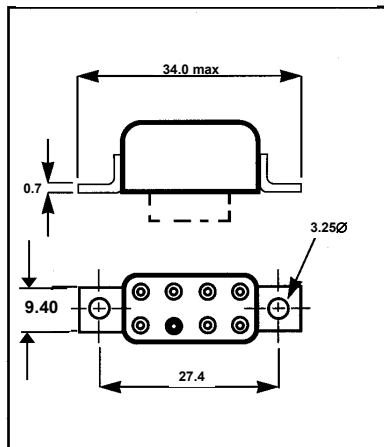
BS Ref 03

HD Ref 34



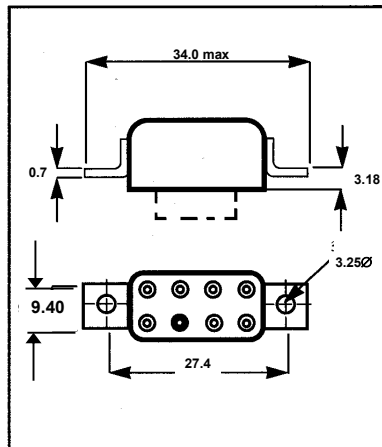
BS Ref 04

HD Ref 25



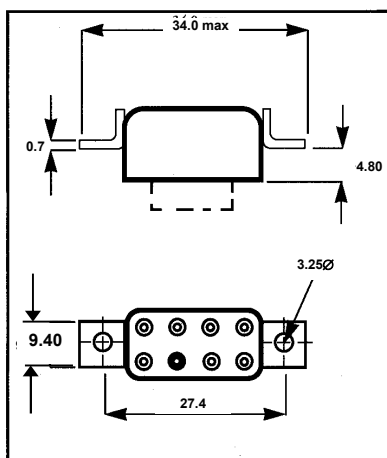
BS Ref 05

HD Ref 22



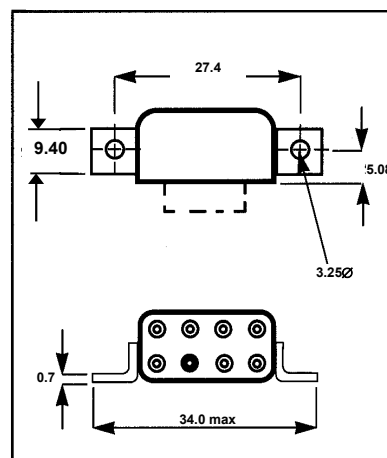
BS Ref 07

HD Ref 23



BS Ref 08

HD Ref 24



Tolerances ± 0.25 unless otherwise stated.
All dimensions are in mm unless otherwise stated.

Note ● Denotes Contrast Bead

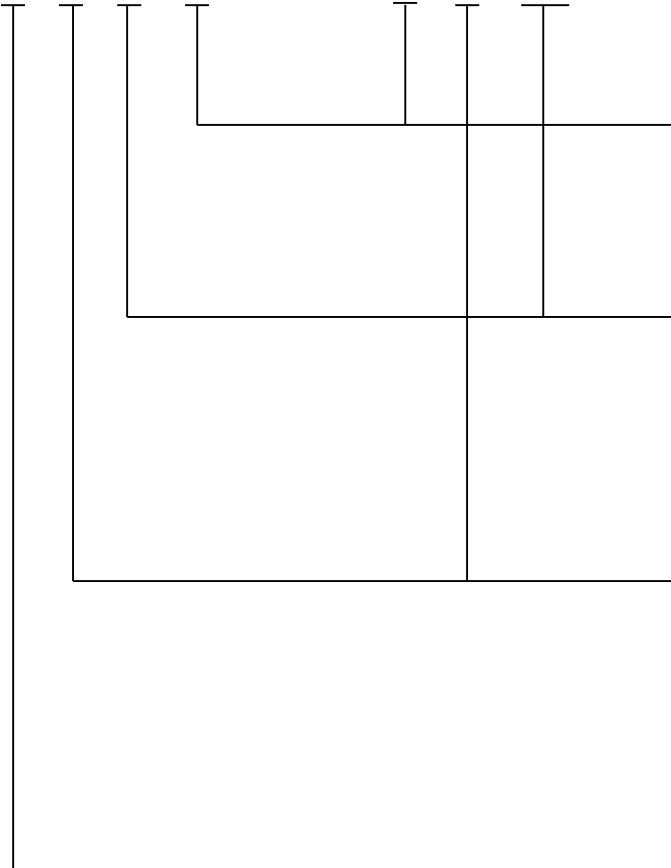
Data Sheet No
DSHDS5- 3922

SHEET 3 OF 4

ORDERING INFORMATION

BS9151-F0026- 01- 08 - 05- 12

HDS5S - F2 – K22



Termination Variant (Refer to Page 2)	
BS	HD
11	H
12	S

Mounting Variant (Refer to Page 3)	
BS	HD
01	21
02	26
03	34
04	25
05	22
07	23
08	24

Coil Variant (Refer to table below)	
BS	HD
02	C2
05	E2
08	F2
09	F3
11	G2
-	H2
-	M2
-	J2
15	K2

Contact Rating (Refer to page 2)	
01	Light Duty Rating
02	Low Level

COIL VARIANTS AND OPERATING CHARACTERISTICS

HD Coil	BS Coil	Nominal Operating Voltage	Coil Resistance Ohms +/- 10%	Must Operate Voltage VDC	Must Drop Out Voltage VDC
H2	-	4.5	25	2.5	0.2
C2	02	6.0	42	3.2	0.3
E2	05	12.0	210	6.8	0.6
M2	-	18.0	430	9.5	0.9
K2	15	20.0	700	10.6	0.9
F3	09	24.0	1250	14.4	1.2
F2	08	26.5	830	13.5	1.2
J2	-	32.0	1300	16.8	1.4
G2	11	48.0	2800	25.5	2.5

All Values are measured at 25°C

Data Sheet No
DSHDS5- 3922

SHEET 4 OF 4