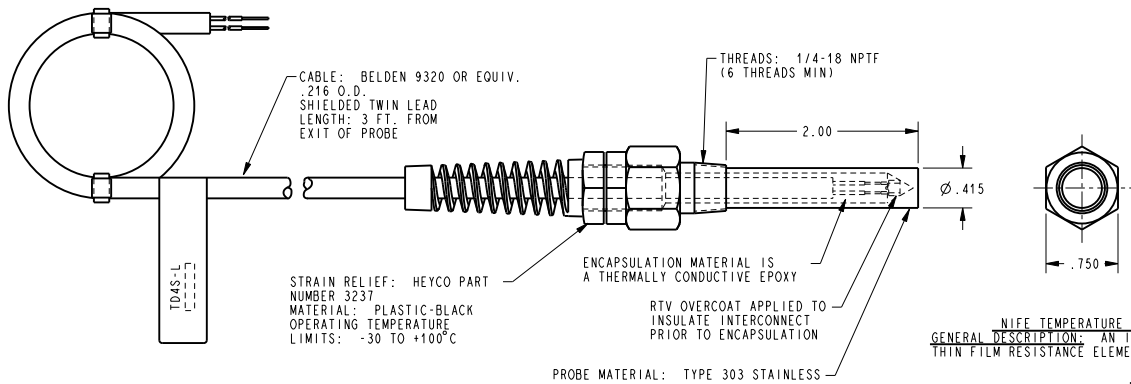


**MICRO SWITCH**  
a Honeywell Division  
FED. MFG. CODE 91929

**TEMPERATURE  
SENSOR PROBE**

CATALOG LISTING  
**TD4S-L**

TD4S-L  
 CATALOG LISTING  
 PAGE 1 OF 1  
 RELEASE NO. DR-4230  
 REPLACES X90053-TD  
 ISSUE 2  
 REVISIONS  
 A 0000692  
 J.L.H. 1/83  
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 25 JUN 03  
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 P.T.C./CAD 20  
 DRAWN  
 J.L.H.



**NIFE TEMPERATURE SENSOR CHIP SPECIFICATIONS**  
GENERAL DESCRIPTION: AN INTEGRATED CIRCUIT CONSISTING OF A NIFE THIN FILM RESISTANCE ELEMENT WITH A LASER TRIMMED SERIES LADDER

INTERCHANGEABILITY  
(PACKAGE CHIP & 1mA MAX CURRENT)

TEMPERATURE	RESISTANCE (OHMS)
-30°C (-22°F)	1649±11 (1.7°C)
-20°C (-4°F)	1715±10 (1.5°C)
-10°C (14°F)	1784±9 (1.3°C)
0°C (32°F)	1854±8 (1.1°C)
+10°C (50°F)	1926±6 (0.8°C)
+20°C (68°F)	2000±5 (0.7°C)
+30°C (86°F)	2076±5 (0.7°C)
+40°C (104°F)	2153±6 (0.8°C)
+50°C (122°F)	2233±7 (0.9°C)
+60°C (140°F)	2314±9 (1.1°C)
+70°C (158°F)	2397±10 (1.2°C)
+80°C (176°F)	2482±12 (1.4°C)
+90°C (194°F)	2569±14 (1.6°C)
+100°C (212°F)	2658±16 (1.8°C)

EQUATION FOR COMPUTING RESISTANCE:

$$R_T = R_0 + (3.84 \times 10^{-3} \times R_0 \times T) + (4.94 \times 10^{-6} \times R_0 \times T^2)$$

$R_T$  = RESISTANCE AT TEMPERATURE T

$R_0$  = RESISTANCE AT 0°C

T = TEMPERATURE IN °C

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THIRD ANGLE PROJECTION



CHARACTERISTICS	ELECTRICAL DATA	SCALE
OPERATING FORCE	CONTACT ARRANGEMENT	FULL
DIFFERENTIAL FORCE		DO NOT SCALE PRINT
RELEASE FORCE		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE
PRETRAVEL		ONE PLACE (.0) ±.030
DIFFERENTIAL TRAVEL		TWO PLACE (.00) ±.015
OVERTRAVEL		THREE PLACE (.000) ±.005
FREE POSITION		ANGLES ±
		WEIGHT

ANSI Y14.5M-1982 APPLIES