

Elapsed Time Indicators, Event Counters ET3105/-

Features

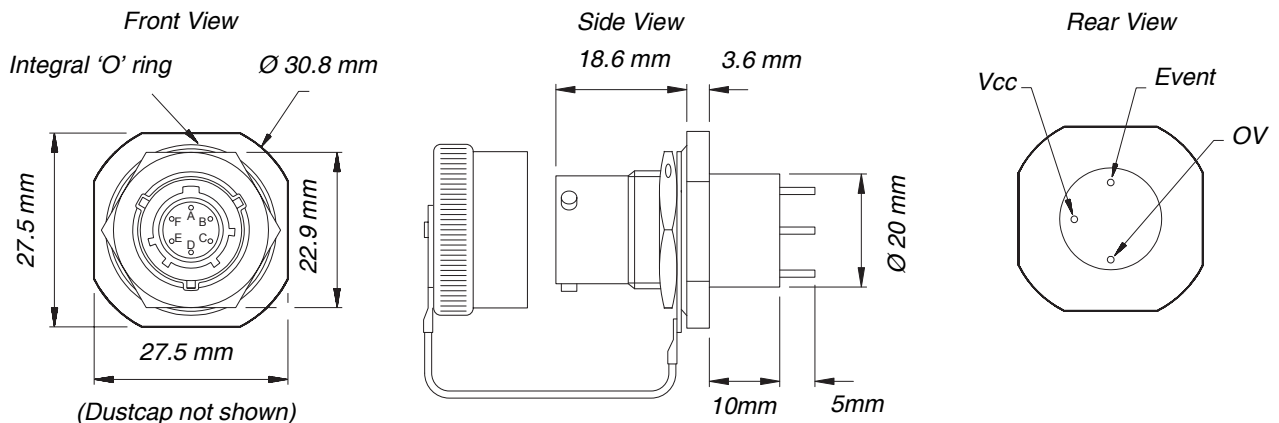
- Hours and/or events in a single package.
- EEPROM non-volatile memory.
- 10 years data retention.
- BS 9522 style panel mount connector versions (Pat.105).
- Remote interrogation from hand-held reader.
- Nuclear survivability.



Description

ET3105 type ETIs are packaged in a Pattern 105 BS 9522 circular connector and are mounted from the rear of the panel into a single hole. They are self-sealing by means of an 'O' ring and occupy minimal volume behind the panel.

The ET3105 is available in 8 different versions in which measurement resolutions, count capacities and event types vary. For ordering information see [page 7](#). Interrogation is by the ET/HHR/3A hand-held reader. For further details see the ET/HHR/3A Product Guide on [page 12](#).

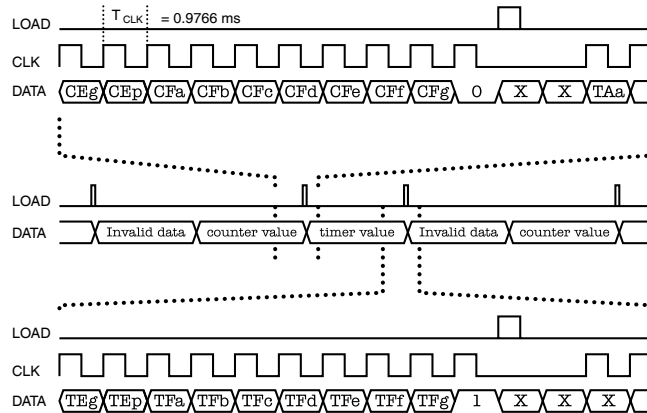


Materials	
Shell:	Aluminium alloy with Zinc Cobalt finish
Contacts:	Brass, finish gold on nickel

Torque Setting
45 ftlb



Output Signal



Ratings

Parameter	Min	Max	Unit
Supply Voltage, Vcc	18	30	V
Supply Current	5	15	mA
Timing Error		+/- 0.1	%
Event I/P	VIL	0.8	V
	VIH	2.4	V
Data, Clock, Load	VOL	0.6	V
	VOH	3.5	V
Event Pulse Width	0.1µ	8.0m	S
Event Pulse Frequency		50	Hz
Data Retention	10		Years
Operating Temperature	-55	+90	°C
Storage Temperature	-55	+100	°C

Pin Connections

Front Connector Reader Connections	
Pin	Signal
A	VAUX
B	Vcc
C	LOAD
D	CLK
E	DATA
F	0V

Rear Pin Connections	
Colour	Function
Orange	Event signal input (TTL compatible)
Red	Vcc (28 V power supply, DEF STAN 61-5 Part 6 compatible)
Black	0 V Common

Environmental Standards

Note All test performed with protective dust-cap fitted.

Test	Specification	Nearest Equivalent MIL-STD-202 Method
Bump	IEC 68-2-29 4000 Bumps, 40 g	No equivalent
Shock	DEF STAN 07-55 200 g, 3 ms, 1/2 Sine Wave 18 shocks total	Method 213-2 Comp I 100 g, 6 ms, Sawtooth
Sealing	BS 9520 Para 1, 2, 6.1, 9.1 (1 bar s)	No equivalent
Vibration	IEC 68-2-6 10-2000 Hz 20 g	Method 20K Cond D 10 - 200 Hz 20 g
Salt spray	IEC 68-2-11 48 hours	Method 101 Cond B
Damp heat (steady state)	IEC 68-2-3 -55/90/21	Method 103 Cond B 96 hours
Change of temperature.	IEC 68-2-14 Ta = -55°C, Tb = 90°C, TI = 30 mins	Method 107 Cond A

Nuclear Hardness

Maximum combined neutron & gamma ionising dose = 1550 cGy (Si)

Maximum neutron fluence 10^{12} n/cm/cm

Ordering Information

Type Number	Resolution (hours)	Capacity (hours)	Event Capacity
ET3105/1	1.0	999,999	-
ET3105/2	0.1	99,999.9	-
ET3105/5A	1.0	999,999	10 ⁶ PULSES
ET3105/5B	1.0	999,999	10 ⁶ POWER UP
ET3105/6A	0.1	99,999.9	10 ⁶ PULSES
ET3105/6B	0.1	99,999.9	10 ⁶ POWER UP
ET3105/7A	0.01	9,999.99	10 ⁶ PULSES
ET3105/7B	0.01	9,999.99	10 ⁶ POWER UP

When ordering please state type number and quantity.