

Product Specifications

CEL noise dosimeters versus Quest noise dosimeters

Feature	Quest models						CEL models			
	Q100	Q200	Q200P	Q300	Q400	Q500	CEL-320X	CEL-320	CEL-360X	CEL-360
description of feature										
Datalogging capability										
storage of time interval data	yes			yes	yes	yes			yes	yes
input details										
microphone type and size (mm)	8mm type 2	8mm type 2	8mm type 2	8mm type 2	8mm type 2	12.5mm type 1	6.4mm	6.4mm	6.4mm	6.4mm
length of cable (in)	36	36	36	36	36	36	40	40	40	40
stalk microphone available as option							yes	yes	yes	yes
measurement range (dB)	40 - 140	40 - 140	40 - 140	40 - 140	40 - 140	40 - 140	30 - 140	30 - 140	30 - 140	30 - 140
number of ranges	2	2	2	2	2	2	3	3	3	3
individual measurement range (dB)	70	70	70	70	70	70	70	70	70	70
amplitude resolution (dB)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
noise dose resolution (%)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
amplitude distribution resolution (dB)	1			1	1	1			0.5	
user programmable parameters										
frequency filter range (rms)	A or C	A or C	A or C	A or C	A and/or C	A and/or C	A or C	A or C	A or C	A or C
frequency filter range (peak)	A or C	A or C	A or C	A or C	A or C	A or C	Lin or C	Lin or C	Lin or C	Lin or C
time response weighting	S or F	S or F	S or F	S or F	S or F	S or F	S, F or I	S, F or I	S, F or I	S, F or I
amplitude response (exchange rate)	3,4,5 or 6	3,4,5 or 6	3,4,5 or 6	3,4,5 or 6	3,4,5 or 6	3,4,5 or 6	3,4,5 or 6	3,4,5 or 6	3,4,5 or 6	3,4,5 or 6
criterion level for 100% dose (dB)	40 - 140	40 - 140	40 - 140	40 - 140	40 - 140	40 - 140	80 - 90	80 - 90	80 - 90	80 - 90
threshold level (dB)	40 - 140	40 - 140	40 - 140	40 - 140	40 - 140	40 - 140	70 - 90	70 - 90	70 - 90	70 - 90
number of thresholds available							2	2	2	2
real time date and time	yes	no	yes	yes	yes	yes	yes	yes	yes	yes
elapsed time	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
RS232 baud rates	300 - 19200	no	no	300 - 19200	300 - 19200	300 - 19200	9600	9600	9600	9600
time history intervals	yes	no	no	yes	yes	yes	no	no	yes	yes
total number of interval times	1s, 10s, 1min	none	none	1 min	1s, 10s, 1min	1s, 10s, 1min	none	none	220,000	220,000
number of time history parameters saved	4	none	none	3	5	5	none	none	10	10
security levels	1	2	2	2	1	1	1, 2 option	2	1, 2 option	1, 2 option
selectable user ID #	4 digits	4 digits	4 digits	4 digits	4 digits	4 digits	option	6 digits	option	6 digits
scheduled (delay start-stop) runs	yes	no	no	yes	yes	yes	no	no	option	16 timers
autostop (fixed duration) mode	yes	no	no	yes	yes	yes	no	no	option	yes
number of fixed run durations							no	no	11	11
number of parameters to be measured	11	10	10	11	11	11	22	22	24	24
number of pre-programmed setups	7	1	1	1			7	7	7	7
number of user-programmed setups	1						13	13	13	13
stored information										
max and peak	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
min							yes	yes	yes	yes
Leq and SEL	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Lavg and TWA	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
exposure per ISO Pa2H	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
exposure level per ISO LEP, d							yes	yes	yes	yes
actual dose and Proj dose	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
elapsed time	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
real time	yes			yes	yes	yes	yes	yes	yes	yes
pause time	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
user selectable work time for TWA							no	no	option	yes

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	Q100	Q200	Q200P	Q300	Q400	Q500	CEL-320X	CEL-320	CEL-360X	CEL-360
description of feature										
calibration data	pre run	spl only	spl only	pre run	pre run	pre run	pre&post run	pre&post run	pre&post run	pre&post run
time history data (logging periods)	3	no	no	1	3	3	no	no	15	15
level exceedances (amp. distrib.)	yes	no	no	yes	yes	yes	no	no	yes	yes
number of percentile levels (Ln%)							none	none	5	5
storage capacity										
overall runs (surveys)	999	1	1	300	999	999	50	50	50	50
time history data (logging periods)							none	none	99,999	99,999
maximum datalogging recording time	1056 hr			52	1056	1056	none	none	22,000 hr	22,000 hr
output options										
serial output to computer	yes	no	no	yes	yes	yes	option	yes	option	yes
parallel output to printer	yes	no	yes	yes	yes	yes	option	yes	option	yes
applicable standards										
acoustic performance										
ANSI S1.4 - 1983 (IEC 60651 1979)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
ANSI S1.25 - 1991 (IEC 61252 1993)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
ANSI S1.43 - 1987 (IEC 60804 1985)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
intrinsic safety (UL)	yes	yes	yes	yes	yes	yes	no	no	no	no
electromagnetic conformance (CE mark)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
environmental limits										
overall temperature range (deg C)	-10 - 50	-10 - 50	-10 - 50	-10 - 50	-10 - 50	-10 - 50	-10 - 50	-10 - 50	-10 - 50	-10 - 50
overall temperature range (deg F)	14 - 122	14 - 122	14 - 122	14 - 122	14 - 122	14 - 122	14 - 122	14 - 122	14 - 122	14 - 122
storage temperature range (deg C)	-20 - 60	-20 - 60	-20 - 60	-20 - 60	-20 - 60	-20 - 60	-20 - 60	-20 - 60	-20 - 60	-20 - 60
storage temperature range (deg F)	-4 - 140	-4 - 140	-4 - 140	-4 - 140	-4 - 140	-4 - 140	-4 - 140	-4 - 140	-4 - 140	-4 - 140
humidity % (non-condensing)	(0 - 95)	(0 - 95)	(0 - 95)	(0 - 95)	(0 - 95)	(0 - 95)	(30 - 95)	(30 - 95)	(30 - 95)	(30 - 95)
power										
battery pack	9V	9V	9V	9V	9V	9V	9V	9V	9V	9V
battery life (typical hrs)	45	48	48	48	22 - 48	15 - 30	50	50	50	50
data retention	1 year			1 year	1 year	1 year	1 year	1 year	1 year	1 year
external power possibility for long runs						yes	yes	yes	yes	yes
mechanical details										
user interface	4 buttons	9 buttons	9 buttons	9 buttons	9 buttons	9 buttons	10 buttons	10 buttons	10 buttons	10 buttons
display	LCD	custom LCD	custom LCD	custom LCD	custom LCD	custom LCD	custom LCD	custom LCD	custom LCD	custom LCD
case size (mm)	71 x 26 x 114	70 x 40 x 140	70 x 40 x 140	70 x 40 x 140	70 x 40 x 140	70 x 40 x 140	65 x 30 x 120	65 x 30 x 120	65 x 30 x 120	65 x 30 x 120
case size (in)	2.8 x 1.0 x 4.5	2.8 x 1.4 x 5.5	2.8 x 1.4 x 5.5	2.8 x 1.4 x 5.5	2.8 x 1.4 x 5.5	2.8 x 1.4 x 5.5	2.6 x 1.2 x 4.8	2.6 x 1.2 x 4.8	2.6 x 1.2 x 4.8	2.6 x 1.2 x 4.8
weight (g)	326	440	440	440	440	440	300	300	300	300
weight (oz)	11.5	15.5	15.5	15.5	15.5	15.5	11	11	11	11
weight/volume (g/cu cm)	1.55	1.12	1.12	1.12	1.12	1.12	1.28	1.28	1.28	1.28
weight/volume (oz/cu in)	0.913	0.718	0.718	0.718	0.718	0.718	0.735	0.735	0.735	0.735
list prices as offered by manufacturer										
instrument only (\$)	1695	1290	1440	1750	2160	2985	990	1125	1535	1695
standard kit with calibrator (\$)	2080	1675	1825	2135	2545	3580	1315	1450	1755	2020
standard kit with win s'w and printing (\$)	2475	n/a	n/a	2530	2970	3975	1600	1600	2170	2170

all information taken from manufacturer's published data - subject to change without notice, correct as at Mar 2002