

| | response to 10 kel calibration input | | | | thresholds set (V) | | | |
|-----------|--------------------------------------|--------|--------|--------|--------------------|---------|---------|---------|
| channel # | QWAD01 | QWAD02 | QWAD03 | QWAD04 | QWAD01 | QWAD02 | QWAD03 | QWAD04 |
| 1 | -0.112 | -0.114 | -0.113 | -0.114 | -0.0392 | -0.0400 | -0.0397 | -0.0400 |
| 2 | -0.108 | -0.101 | -0.108 | -0.108 | -0.0378 | -0.0354 | -0.0377 | -0.0379 |
| 3 | -0.098 | -0.104 | -0.103 | -0.105 | -0.0343 | -0.0363 | -0.0361 | -0.0368 |
| 4 | -0.101 | -0.102 | -0.100 | -0.098 | -0.0354 | -0.0358 | -0.0351 | -0.0343 |
| 5 | -0.092 | -0.093 | -0.092 | -0.093 | -0.0322 | -0.0325 | -0.0322 | -0.0325 |
| 6 | -0.090 | -0.096 | -0.090 | -0.095 | -0.0315 | -0.0337 | -0.0315 | -0.0333 |
| 7 | -0.115 | -0.115 | -0.121 | -0.117 | -0.0403 | -0.0404 | -0.0423 | -0.0410 |
| 8 | -0.112 | -0.114 | -0.116 | -0.115 | -0.0392 | -0.0401 | -0.0405 | -0.0402 |
| 9 | -0.104 | -0.108 | -0.109 | -0.109 | -0.0364 | -0.0377 | -0.0381 | -0.0381 |
| 10 | -0.109 | -0.107 | -0.107 | -0.105 | -0.0382 | -0.0374 | -0.0374 | -0.0368 |
| 11 | -0.100 | -0.098 | -0.097 | -0.100 | -0.0350 | -0.0342 | -0.0339 | -0.0350 |
| 12 | -0.091 | -0.096 | -0.096 | -0.094 | -0.0319 | -0.0336 | -0.0337 | -0.0330 |
| 13 | -0.123 | -0.123 | -0.124 | -0.120 | -0.0431 | -0.0431 | -0.0433 | -0.0421 |
| 14 | -0.121 | -0.118 | -0.124 | -0.119 | -0.0424 | -0.0412 | -0.0434 | -0.0415 |
| 15 | -0.111 | -0.112 | -0.111 | -0.111 | -0.0389 | -0.0393 | -0.0390 | -0.0390 |
| 16 | -0.112 | -0.108 | -0.112 | -0.107 | -0.0392 | -0.0378 | -0.0393 | -0.0374 |
| 17 | -0.103 | -0.104 | -0.103 | -0.097 | -0.0361 | -0.0364 | -0.0362 | -0.0341 |
| 18 | -0.096 | -0.101 | -0.099 | -0.098 | -0.0336 | -0.0352 | -0.0348 | -0.0341 |
| 19 | -0.130 | -0.128 | -0.129 | -0.128 | -0.0455 | -0.0446 | -0.0451 | -0.0447 |
| 20 | -0.123 | -0.127 | -0.131 | -0.126 | -0.0431 | -0.0446 | -0.0459 | -0.0439 |
| 21 | -0.112 | -0.111 | -0.112 | -0.112 | -0.0392 | -0.0388 | -0.0392 | -0.0393 |
| 22 | -0.112 | -0.112 | -0.114 | -0.113 | -0.0392 | -0.0391 | -0.0399 | -0.0397 |
| 23 | -0.101 | -0.105 | -0.105 | -0.105 | -0.0354 | -0.0367 | -0.0366 | -0.0368 |
| 24 | -0.100 | -0.102 | -0.102 | -0.098 | -0.0350 | -0.0358 | -0.0358 | -0.0343 |
| 25 | -0.121 | -0.128 | -0.127 | -0.129 | -0.0424 | -0.0448 | -0.0443 | -0.0451 |
| 26 | -0.124 | -0.124 | -0.123 | -0.120 | -0.0434 | -0.0434 | -0.0429 | -0.0421 |
| 27 | -0.100 | -0.112 | -0.114 | -0.113 | -0.0350 | -0.0394 | -0.0399 | -0.0394 |
| 28 | -0.104 | -0.111 | -0.108 | -0.112 | -0.0364 | -0.0387 | -0.0379 | -0.0391 |
| 29 | -0.100 | -0.114 | -0.103 | -0.101 | -0.0350 | -0.0399 | -0.0362 | -0.0352 |
| 30 | -0.100 | -0.098 | -0.102 | -0.100 | -0.0350 | -0.0342 | -0.0356 | -0.0349 |
| 31 | -0.119 | -0.125 | -0.122 | -0.116 | -0.0417 | -0.0439 | -0.0429 | -0.0406 |
| 32 | -0.119 | -0.115 | -0.117 | -0.112 | -0.0417 | -0.0402 | -0.0408 | -0.0392 |
| 33 | -0.104 | -0.107 | -0.108 | -0.108 | -0.0364 | -0.0374 | -0.0377 | -0.0379 |
| 34 | -0.104 | -0.108 | -0.109 | -0.106 | -0.0364 | -0.0377 | -0.0382 | -0.0371 |
| 35 | -0.100 | -0.095 | -0.099 | -0.102 | -0.0350 | -0.0333 | -0.0345 | -0.0357 |
| 36 | -0.095 | -0.097 | -0.096 | -0.097 | -0.0333 | -0.0340 | -0.0336 | -0.0340 |
| 37 | -0.113 | -0.114 | -0.117 | -0.116 | -0.0396 | -0.0398 | -0.0410 | -0.0407 |
| 38 | -0.113 | -0.108 | -0.108 | -0.109 | -0.0396 | -0.0378 | -0.0378 | -0.0381 |
| 39 | -0.100 | -0.103 | -0.101 | -0.100 | -0.0350 | -0.0359 | -0.0355 | -0.0350 |
| 40 | -0.099 | -0.101 | -0.104 | -0.102 | -0.0347 | -0.0354 | -0.0364 | -0.0357 |
| 41 | -0.094 | -0.095 | -0.095 | -0.091 | -0.0329 | -0.0332 | -0.0331 | -0.0319 |
| 42 | -0.100 | -0.092 | -0.093 | -0.094 | -0.0350 | -0.0322 | -0.0327 | -0.0330 |
| 43 | -0.111 | -0.121 | -0.108 | -0.113 | -0.0389 | -0.0422 | -0.0379 | -0.0396 |
| 44 | -0.112 | -0.112 | -0.111 | -0.110 | -0.0392 | -0.0392 | -0.0390 | -0.0384 |
| 45 | -0.107 | -0.105 | -0.112 | -0.107 | -0.0375 | -0.0366 | -0.0391 | -0.0375 |
| 46 | -0.109 | -0.110 | -0.108 | -0.108 | -0.0382 | -0.0386 | -0.0378 | -0.0378 |
| 47 | | | | | -0.0400 | -0.0400 | -0.0400 | -0.0400 |
| 48 | | | | | -0.0400 | -0.0400 | -0.0400 | -0.0400 |

| | response to 10 kel calibration input | | | | thresholds set | | | |
|-----------|--------------------------------------|--------|--------|--------|----------------|--------|--------|--------|
| channel # | QWAD05 | QWAD06 | QWAD07 | QWAD08 | QWAD05 | QWAD06 | QWAD07 | QWAD08 |
| 1 | -0.105 | -0.131 | -0.114 | -0.112 | -0.037 | -0.046 | -0.040 | -0.039 |
| 2 | -0.108 | -0.079 | -0.109 | -0.109 | -0.038 | -0.028 | -0.038 | -0.038 |
| 3 | -0.101 | -0.118 | -0.104 | -0.104 | -0.035 | -0.041 | -0.036 | -0.036 |
| 4 | -0.099 | -0.121 | -0.105 | -0.105 | -0.035 | -0.042 | -0.037 | -0.037 |
| 5 | -0.089 | -0.113 | -0.095 | -0.095 | -0.031 | -0.040 | -0.033 | -0.033 |
| 6 | -0.091 | -0.111 | -0.093 | -0.093 | -0.032 | -0.039 | -0.033 | -0.033 |
| 7 | -0.115 | -0.137 | -0.119 | -0.119 | -0.040 | -0.048 | -0.042 | -0.042 |
| 8 | -0.113 | -0.135 | -0.115 | -0.115 | -0.040 | -0.047 | -0.040 | -0.040 |
| 9 | -0.101 | -0.128 | -0.109 | -0.109 | -0.035 | -0.045 | -0.038 | -0.038 |
| 10 | -0.103 | -0.124 | -0.103 | -0.103 | -0.036 | -0.043 | -0.036 | -0.036 |
| 11 | -0.097 | -0.121 | -0.099 | -0.099 | -0.034 | -0.042 | -0.035 | -0.035 |
| 12 | -0.097 | -0.111 | -0.099 | -0.099 | -0.034 | -0.039 | -0.035 | -0.035 |
| 13 | -0.117 | -0.146 | -0.126 | -0.126 | -0.041 | -0.051 | -0.044 | -0.044 |
| 14 | -0.119 | -0.142 | -0.123 | -0.123 | -0.042 | -0.050 | -0.043 | -0.043 |
| 15 | -0.107 | -0.132 | -0.114 | -0.114 | -0.037 | -0.046 | -0.040 | -0.040 |
| 16 | -0.111 | -0.134 | -0.112 | -0.112 | -0.039 | -0.047 | -0.039 | -0.039 |
| 17 | -0.099 | -0.121 | -0.099 | -0.099 | -0.035 | -0.042 | -0.035 | -0.035 |
| 18 | -0.098 | -0.119 | -0.098 | -0.098 | -0.034 | -0.042 | -0.034 | -0.034 |
| 19 | -0.123 | -0.152 | -0.128 | -0.128 | -0.043 | -0.053 | -0.045 | -0.045 |
| 20 | -0.121 | -0.147 | -0.124 | -0.124 | -0.042 | -0.051 | -0.043 | -0.043 |
| 21 | -0.109 | -0.132 | -0.115 | -0.115 | -0.038 | -0.046 | -0.040 | -0.040 |
| 22 | -0.109 | -0.134 | -0.111 | -0.111 | -0.038 | -0.047 | -0.039 | -0.039 |
| 23 | -0.101 | -0.126 | -0.108 | -0.108 | -0.035 | -0.044 | -0.038 | -0.038 |
| 24 | -0.100 | -0.118 | -0.103 | -0.103 | -0.035 | -0.041 | -0.036 | -0.036 |
| 25 | -0.124 | -0.152 | -0.127 | -0.127 | -0.043 | -0.053 | -0.044 | -0.044 |
| 26 | -0.120 | -0.147 | -0.123 | -0.123 | -0.042 | -0.051 | -0.043 | -0.043 |
| 27 | -0.109 | -0.128 | -0.106 | -0.106 | -0.038 | -0.045 | -0.037 | -0.037 |
| 28 | -0.106 | -0.130 | -0.104 | -0.109 | -0.037 | -0.046 | -0.036 | -0.038 |
| 29 | -0.098 | -0.121 | -0.104 | -0.104 | -0.034 | -0.042 | -0.036 | -0.036 |
| 30 | -0.098 | -0.116 | -0.101 | -0.101 | -0.034 | -0.041 | -0.035 | -0.035 |
| 31 | -0.119 | -0.141 | -0.119 | -0.119 | -0.042 | -0.049 | -0.042 | -0.042 |
| 32 | -0.115 | -0.139 | -0.121 | -0.121 | -0.040 | -0.049 | -0.042 | -0.042 |
| 33 | -0.103 | -0.123 | -0.119 | -0.105 | -0.036 | -0.043 | -0.042 | -0.037 |
| 34 | -0.106 | -0.118 | -0.102 | -0.102 | -0.037 | -0.041 | -0.036 | -0.036 |
| 35 | -0.097 | -0.115 | -0.099 | -0.099 | -0.034 | -0.040 | -0.035 | -0.035 |
| 36 | -0.090 | -0.114 | -0.095 | -0.095 | -0.032 | -0.040 | -0.033 | -0.033 |
| 37 | -0.108 | -0.136 | -0.116 | -0.116 | -0.038 | -0.048 | -0.041 | -0.041 |
| 38 | -0.103 | -0.135 | -0.115 | -0.115 | -0.036 | -0.047 | -0.040 | -0.040 |
| 39 | -0.100 | -0.120 | -0.104 | -0.104 | -0.035 | -0.042 | -0.036 | -0.036 |
| 40 | -0.100 | -0.120 | -0.102 | -0.102 | -0.035 | -0.042 | -0.036 | -0.036 |
| 41 | -0.090 | -0.112 | -0.095 | -0.095 | -0.032 | -0.039 | -0.033 | -0.033 |
| 42 | -0.092 | -0.106 | -0.092 | -0.092 | -0.032 | -0.037 | -0.032 | -0.032 |
| 43 | -0.110 | -0.130 | -0.112 | -0.112 | -0.039 | -0.046 | -0.039 | -0.039 |
| 44 | -0.106 | -0.131 | -0.108 | -0.108 | -0.037 | -0.046 | -0.038 | -0.038 |
| 45 | -0.107 | -0.129 | -0.108 | -0.108 | -0.038 | -0.045 | -0.038 | -0.038 |
| 46 | -0.107 | -0.126 | -0.110 | -0.112 | -0.038 | -0.044 | -0.039 | -0.039 |
| 47 | | | | | -0.040 | -0.040 | -0.040 | -0.040 |
| 48 | | | | | -0.040 | -0.040 | -0.040 | -0.040 |

| | response to 10 kel calibration input | | | | thresholds set | | | |
|-----------|--------------------------------------|--------|--------|--------|----------------|---------|---------|--------|
| channel # | QWAD09 | QWAD10 | QWAD11 | QWAD12 | QWAD09 | QWAD10 | QWAD11 | QWAD12 |
| 1 | -0.108 | -0.110 | -0.113 | | -0.0379 | -0.0385 | -0.0396 | |
| 2 | -0.108 | -0.112 | -0.113 | | -0.0379 | -0.0390 | -0.0396 | |
| 3 | -0.104 | -0.101 | -0.100 | | -0.0365 | -0.0354 | -0.0350 | |
| 4 | -0.100 | -0.099 | -0.098 | | -0.0348 | -0.0345 | -0.0345 | |
| 5 | -0.094 | -0.088 | -0.093 | | -0.0330 | -0.0308 | -0.0327 | |
| 6 | -0.089 | -0.089 | -0.095 | | -0.0310 | -0.0311 | -0.0333 | |
| 7 | -0.123 | -0.113 | -0.115 | | -0.0431 | -0.0395 | -0.0401 | |
| 8 | -0.104 | -0.114 | -0.116 | | -0.0364 | -0.0399 | -0.0404 | |
| 9 | -0.102 | -0.105 | -0.111 | | -0.0357 | -0.0367 | -0.0387 | |
| 10 | -0.104 | -0.104 | -0.107 | | -0.0363 | -0.0363 | -0.0376 | |
| 11 | -0.099 | -0.097 | -0.096 | | -0.0345 | -0.0341 | -0.0335 | |
| 12 | -0.095 | -0.092 | -0.100 | | -0.0334 | -0.0322 | -0.0350 | |
| 13 | -0.120 | -0.115 | -0.120 | | -0.0418 | -0.0401 | -0.0419 | |
| 14 | -0.115 | -0.116 | -0.124 | | -0.0403 | -0.0406 | -0.0434 | |
| 15 | -0.106 | -0.107 | -0.113 | | -0.0370 | -0.0376 | -0.0396 | |
| 16 | -0.110 | -0.109 | -0.110 | | -0.0387 | -0.0380 | -0.0384 | |
| 17 | -0.101 | -0.095 | -0.100 | | -0.0354 | -0.0333 | -0.0349 | |
| 18 | -0.097 | -0.096 | -0.102 | | -0.0340 | -0.0338 | -0.0355 | |
| 19 | -0.126 | -0.121 | -0.126 | | -0.0440 | -0.0425 | -0.0441 | |
| 20 | -0.126 | -0.132 | -0.126 | | -0.0440 | -0.0460 | -0.0440 | |
| 21 | -0.109 | -0.112 | -0.105 | | -0.0383 | -0.0391 | -0.0369 | |
| 22 | -0.111 | -0.105 | -0.108 | | -0.0388 | -0.0369 | -0.0378 | |
| 23 | -0.097 | -0.100 | -0.105 | | -0.0340 | -0.0350 | -0.0369 | |
| 24 | -0.100 | -0.107 | -0.103 | | -0.0350 | -0.0376 | -0.0362 | |
| 25 | -0.121 | -0.124 | -0.126 | | -0.0424 | -0.0434 | -0.0443 | |
| 26 | -0.121 | -0.122 | -0.123 | | -0.0424 | -0.0427 | -0.0432 | |
| 27 | -0.107 | -0.108 | -0.108 | | -0.0374 | -0.0378 | -0.0378 | |
| 28 | -0.106 | -0.105 | -0.110 | | -0.0372 | -0.0367 | -0.0386 | |
| 29 | -0.101 | -0.100 | -0.103 | | -0.0355 | -0.0349 | -0.0360 | |
| 30 | -0.098 | -0.102 | -0.099 | | -0.0343 | -0.0357 | -0.0346 | |
| 31 | -0.119 | -0.115 | -0.125 | | -0.0418 | -0.0403 | -0.0437 | |
| 32 | -0.114 | -0.111 | -0.115 | | -0.0401 | -0.0388 | -0.0403 | |
| 33 | -0.107 | -0.102 | -0.107 | | -0.0376 | -0.0357 | -0.0374 | |
| 34 | -0.103 | -0.103 | -0.107 | | -0.0359 | -0.0362 | -0.0376 | |
| 35 | -0.094 | -0.093 | -0.101 | | -0.0331 | -0.0327 | -0.0352 | |
| 36 | -0.093 | -0.095 | -0.095 | | -0.0324 | -0.0331 | -0.0334 | |
| 37 | -0.113 | -0.112 | -0.117 | | -0.0396 | -0.0392 | -0.0409 | |
| 38 | -0.107 | -0.107 | -0.112 | | -0.0375 | -0.0375 | -0.0392 | |
| 39 | -0.103 | -0.097 | -0.099 | | -0.0361 | -0.0338 | -0.0347 | |
| 40 | -0.103 | -0.096 | -0.102 | | -0.0362 | -0.0338 | -0.0356 | |
| 41 | -0.093 | -0.097 | -0.097 | | -0.0324 | -0.0340 | -0.0339 | |
| 42 | -0.089 | -0.087 | -0.094 | | -0.0310 | -0.0306 | -0.0330 | |
| 43 | -0.108 | -0.107 | -0.114 | | -0.0376 | -0.0374 | -0.0399 | |
| 44 | -0.104 | -0.108 | -0.110 | | -0.0364 | -0.0376 | -0.0386 | |
| 45 | -0.107 | -0.106 | -0.103 | | -0.0376 | -0.0369 | -0.0362 | |
| 46 | -0.107 | -0.104 | -0.108 | | -0.0376 | -0.0364 | -0.0378 | |
| 47 | | | | | -0.0400 | -0.0400 | -0.0400 | |
| 48 | | | | | -0.0400 | -0.0400 | -0.0400 | |