

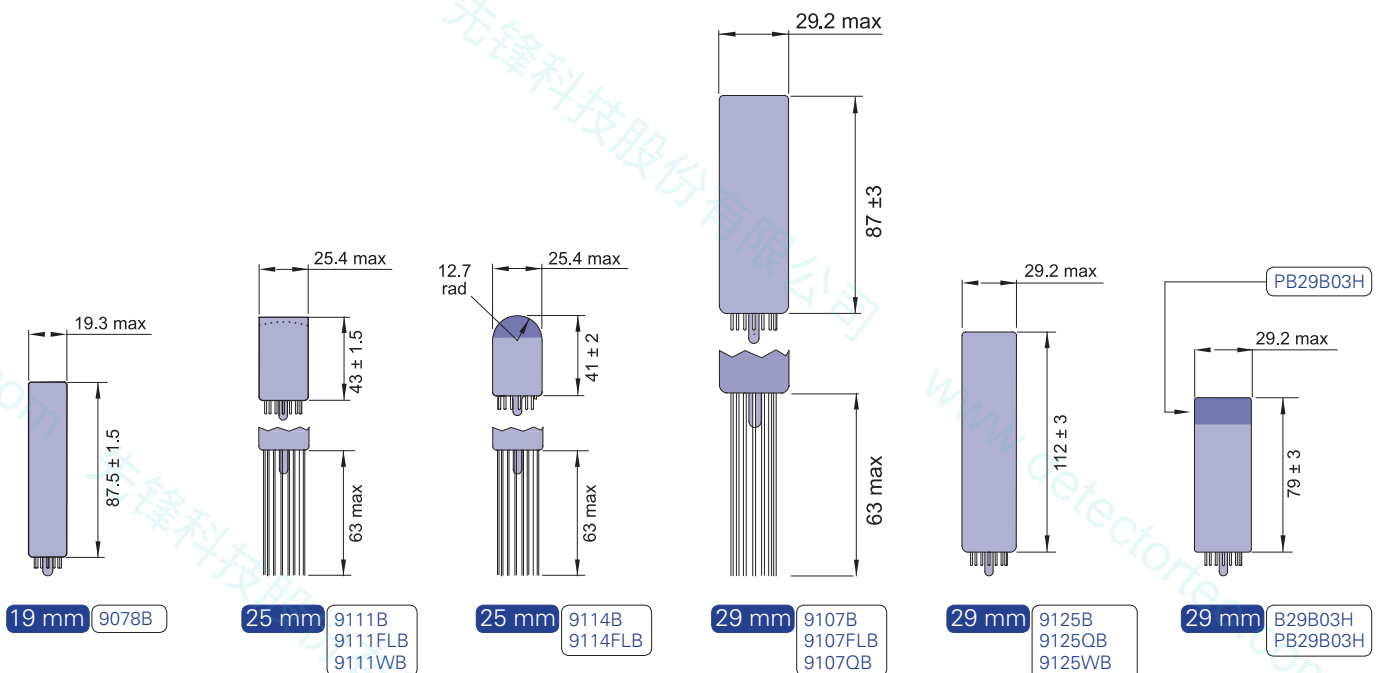
Blue-green sensitive bialkali 19 to 29mm ($\frac{3}{4}$ " to $1\frac{1}{8}$ ") diameter

| type | Characteristics | | | | Photocathode sensitivity | | | | | | Photomultiplier performance | | | | | | |
|----------|---------------------|----------------------------|--------------------------|----------------|--------------------------|----------|--------------------------|--------|------------|------------|-----------------------------|--------------|----------|--------------------|-------------------------|---------------------|-----------------------------------|
| | diameter nominal mm | active diameter nominal mm | number & type of dynodes | dynode surface | QE (%) peak typical | QE Curve | $\mu\text{A/Lm}$ typical | CB min | CB typical | CR typical | nominal A/Lm | Vk-a typical | Vk-a max | gain $\times 10^6$ | dark current typical nA | dark current max nA | dark rate typical s^{-1} |
| 9078B | 19 | 15 | 10 LF | SbCs | 28 | B - c | 65 | 9 | 11 | 1 | 50 | 800 | 1200 | 0.8 | 0.05 | 1 | 50 |
| 9111B | 25 | 22 | 10 CF | SbCs | 28 | B - c | 70 | 7 | 11 | 2 | 50 | 800 | 1300 | 0.7 | 0.3 | 1 | 100 |
| 9111FLB | 25 | 22 | 10 CF | SbCs | 28 | B - c | 70 | 7 | 11 | 2 | 50 | 800 | 1300 | 0.7 | 0.3 | 1 | 100 |
| 9111WB | 25 | 22 | 10 CF | SbCs | 28 | W - c | 70 | 7 | 11 | 2 | 50 | 800 | 1300 | 0.7 | 0.3 | 1 | 100 |
| 9114B | 25 | 22 | 10 CF | SbCs | 28 | B - c | 70 | 7 | 11 | 2 | 50 | 800 | 1300 | 0.7 | 0.3 | 1 | 100 |
| 9114FLB | 25 | 22 | 10 CF | SbCs | 28 | B - c | 70 | 7 | 11 | 2 | 50 | 800 | 1300 | 0.7 | 0.3 | 1 | 100 |
| 9107B | 29 | 25 | 11 LF | SbCs | 28 | B - c | 65 | 7 | 11 | 1 | 200 | 850 | 1150 | 3 | 0.2 | 5 | 100 |
| 9107FLB | 29 | 25 | 11 LF | SbCs | 28 | B - c | 65 | 7 | 11 | 1 | 200 | 850 | 1150 | 3 | 0.2 | 5 | 100 |
| 9107QB | 29 | 25 | 11 LF | SbCs | 28 | Q - c | 65 | 7 | 11 | 1 | 200 | 850 | 1150 | 3 | 0.2 | 5 | 100 |
| 9125B | 29 | 25 | 11 LF | SbCs | 28 | B - c | 65 | 7 | 11 | 1 | 200 | 850 | 1150 | 3 | 0.2 | 5 | 100 |
| 9125QB | 29 | 25 | 11 LF | SbCs | 28 | Q - c | 65 | 7 | 11 | 1 | 200 | 850 | 1150 | 3 | 0.2 | 5 | 100 |
| 9125WB | 29 | 25 | 11 LF | SbCs | 28 | W - c | 65 | 7 | 11 | 1 | 200 | 850 | 1150 | 3 | 0.2 | 5 | 100 |
| B29B02H | 29 | 25 | 11 BG | SbCs | 25 | B - c | 50 | 5 | 9.5 | 1 | 200 | 800 | 1100 | 4 | 0.2 | 5 | 200 |
| B29B03H | 29 | 25 | 11 BG | SbCs | 25 | B - c | 50 | 5 | 9.5 | 1 | 200 | 800 | 1100 | 4 | 0.2 | 5 | 200 |
| B29B06H | 29 | 25 | 9 BG | SbCs | 25 | B - c | 50 | 5 | 9.5 | 1 | 50 | 800 | 1000 | 1 | 0.05 | 2 | 200 |
| PB29B02H | 29 | 25 | 11 BG | SbCs | 25 | B - c | 50 | 5 | 9.5 | 1 | 200 | 800 | 1100 | 4 | 0.2 | 5 | 200 |
| 9780B | side window | 8 x 24 | 9 CF | SbCs | 22 | W - a | 50 | 5 | 9 | 2 | 50 | 750 | 1200 | 1 | 0.1 | 20 | - |
| 9781B | side window | 8 x 24 | 9 CF | SbCs | 25 | W - a | 75 | 5 | 10 | 5 | 50 | 650 | 800 | 0.7 | 0.2 | 5 | - |
| 9783B | side window | 8 x 24 | 9 CF | SbCs | 25 | Q - a | 75 | 5 | 10 | 5 | 50 | 650 | 800 | 0.7 | 0.5 | 5 | - |

Comprehensive data sheets for all of the above types are available on request, or can be downloaded from www.detectorlab.com

Outline drawings mm

(add 0.8mm to diameter when insulating sleeving is specified)

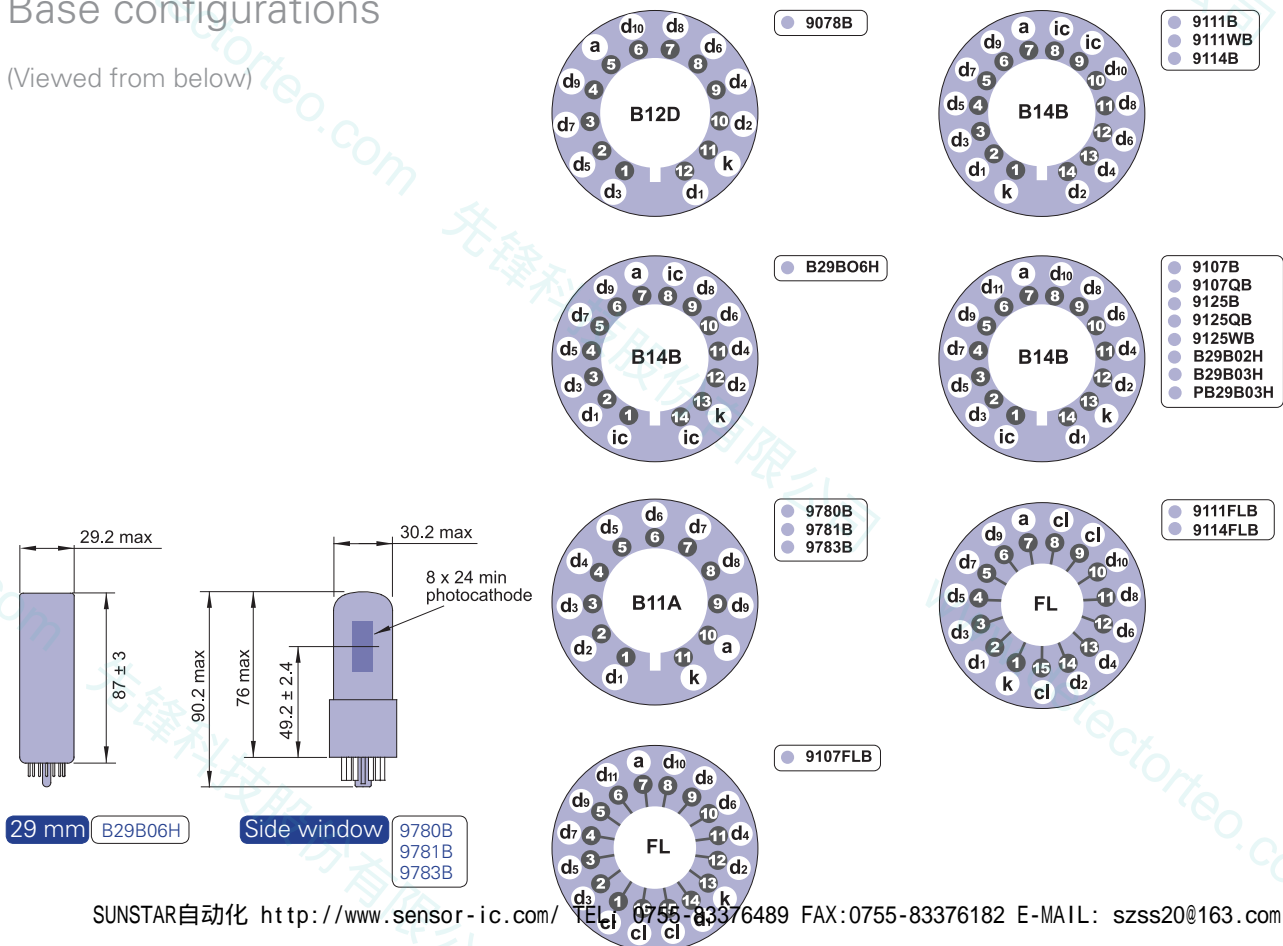


| max rated A/Lm (gain) | pulse rise time ns | pulse fwhm ns | type | Special features | Socket | Shield | Accessories | |
|-----------------------|--------------------|---------------|----------|--|--------|--------|-------------|--------|
| | | | | | | | passive | active |
| 200 | 1.8 | 2.7 | 9078B | fast, high gain, good overall performance. | B12D | MS19A | C669 | C669 |
| 500 | 1.8 | 3.1 | 9111B | compact type, short length and fast response time. | B14B | MS25A | C673 | C6002 |
| 500 | 1.8 | 3.1 | 9111FLB | variant of 9111B with flexible leads. | FL | MS25A | C651 | C6002 |
| 500 | 1.8 | 3.1 | 9111WB | variant of 9111B with UV sensitivity to 185nm. | B14B | MS25A | C673 | C6002 |
| 500 | 1.8 | 3.1 | 9114B | variant of 9111B, hemispherical window for wide angle light detection. | B14B | - | C673 | C6002 |
| 500 | 1.8 | 3.1 | 9114FLB | variant of 9114B with flexible leads. | FL | - | C651 | C6002 |
| 2000 | 4.5 | 7.5 | 9107B | variant of 9125B with shorter length (87 mm). | B14B | MS30A | C637 | C686 |
| 2000 | 4.5 | 7.5 | 9107FLB | variant of 9107B with flexible leads. | FL | MS30A | C637 | C686 |
| 2000 | 4.5 | 7.5 | 9107QB | variant of 9107B with UV sensitivity to 165nm. | B14B | MS30A | C637 | C686 |
| 2000 | 4.5 | 7.5 | 9125B | high performance parent type. | B14B | MS30B | C637 | C686 |
| 2000 | 4.5 | 7.5 | 9125QB | variant of 9125B with UV sensitivity to 165nm. | B14B | MS30B | C637 | C686 |
| 2000 | 4.5 | 7.5 | 9125WB | variant of 9125B with UV sensitivity to 185nm. | B14B | MS30B | C637 | C686 |
| 2000 | 15 | 30 | B29B02H | general purpose, good overall performance. | B14B | MS30B | C637 | C686 |
| 2000 | 15 | 30 | B29B03H | variant of B29B02H with shorter length (79 mm). | B14B | MS30A | C637 | C686 |
| 200 | 15 | 30 | B29B06H | variant of B29B02H for higher light levels, shorter length (87 mm). | B14B | MS30A | C615 | - |
| 2000 | 15 | 30 | PB29B03H | variant of B29B03H with sidewall sensitivity. | B14B | MS30A | C637 | C686 |
| 500 | 2 | 4 | 9780B | variant of 9781B, replaces 931A, IP21 and IP28. | B11A | MSSW | C639A | - |
| 500 | 2 | 4 | 9781B | good overall performance, can be selected for high CR. | B11A | MSSW | C639A | - |
| 500 | 2 | 4 | 9783B | variant of 9781B, with UV sensitivity to 165 nm. | B11A | MSSW | C639A | - |

aded from www.et-enterprises.com

Base configurations

(Viewed from below)



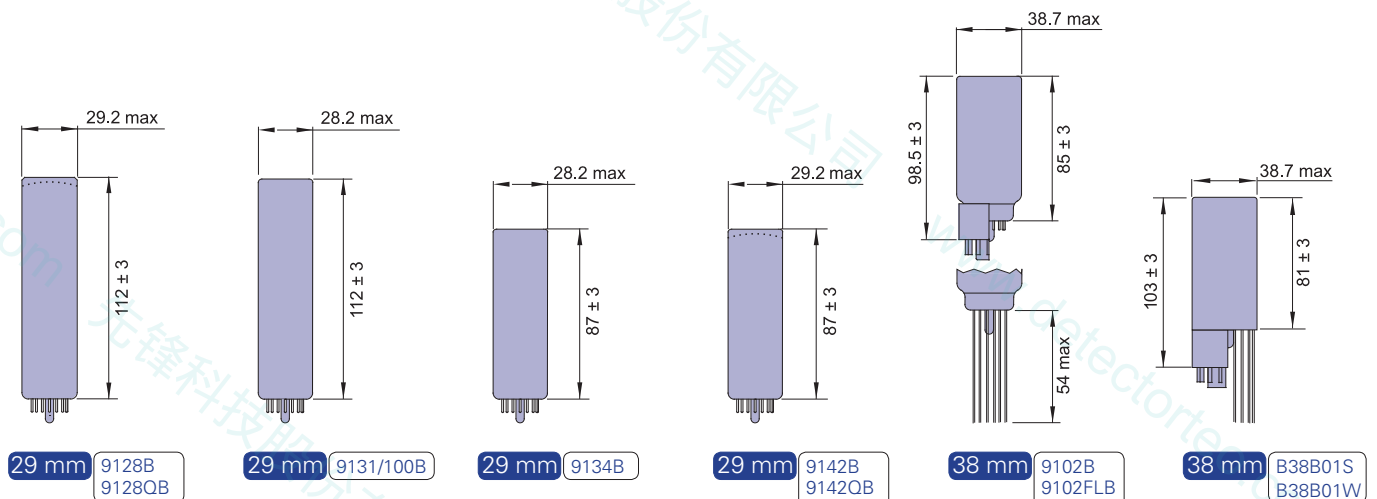
blue-green sensitive bialkali 29 and 38mm (1 1/8" and 1 1/2") diameter

| type | Characteristics | | | | Photocathode sensitivity | | | | | | Photomultiplier performance | | | | | | |
|-----------|---------------------|----------------------------|--------------------------|----------------|--------------------------|----------|---------------|--------|------------|------------|-----------------------------|--------------|----------|-----------------------|-------------------------|---------------------|-----------------------------------|
| | diameter nominal mm | active diameter nominal mm | number & type of dynodes | dynode surface | QE (%) peak typical | QE Curve | uA/Lm typical | CB min | CB typical | CR typical | nominal A/Lm | Vk-a typical | Vk-a max | gain X10 ⁶ | dark current typical nA | dark current max nA | dark rate typical s ⁻¹ |
| 9128B | 29 | 25 | 11 LF | BeCu | 28 | B - c | 65 | 7 | 11 | 1 | 200 | 1400 | 1650 | 3 | 0.2 | 5 | 100 |
| 9128QB | 29 | 25 | 11 LF | BeCu | 28 | Q - c | 65 | 7 | 11 | 1 | 200 | 1400 | 1650 | 3 | 0.2 | 5 | 100 |
| 9131/100B | 29 | 2.5 | 11 LF | BeCu | 25 | B - c | 60 | 6 | 10 | 2 | 200 | 1600 | 1800 | 3 | 0.03 | 0.5 | 10 |
| 9134B | 29 | 25 | 9 LF | SbCs | 28 | B - c | 65 | 7 | 11 | 2 | 50 | 900 | 1100 | 0.8 | 0.05 | 2 | - |
| 9142B | 29 | 25 | 10 LF | SbCs | 28 | B - c | 65 | 7 | 11 | 1 | 50 | 850 | 1200 | 0.8 | 0.1 | 1 | 100 |
| 9142QB | 29 | 25 | 10 LF | SbCs | 28 | Q - c | 65 | 7 | 11 | 1 | 50 | 850 | 1200 | 0.8 | 0.1 | 1 | 100 |
| 9142WB | 29 | 25 | 10 LF | SbCs | 28 | W - c | 65 | 7 | 11 | 1 | 50 | 850 | 1200 | 0.8 | 0.1 | 1 | 100 |
| 9143B | 29 | 25 | 11 LF | SbCs | 28 | B - c | 65 | 7 | 11 | 1 | 200 | 850 | 1200 | 3 | 0.2 | 5 | 100 |
| 9143WB | 29 | 25 | 11 LF | SbCs | 28 | W - c | 65 | 7 | 11 | 1 | 200 | 850 | 1200 | 3 | 0.2 | 5 | 100 |
| 9102B | 38 | 32 | 10 LF | SbCs | 30 | B - c | 90 | 8 | 12.5 | 4 | 20 | 700 | 900 | 0.2 | 0.05 | 1 | 200 |
| 9102FLB | 38 | 32 | 10 LF | SbCs | 30 | B - c | 90 | 8 | 12.5 | 4 | 20 | 700 | 900 | 0.2 | 0.05 | 1 | 200 |
| 9102KB | 38 | 32 | 10 LF | SbCs | 30 | B - c | 90 | 8 | 12.5 | 4 | 20 | 700 | 900 | 0.2 | 0.05 | 1 | 200 |
| B38B01S | 38 | 32 | 10 BG | SbCs | 25 | B - c | 60 | 5 | 10 | 1 | 20 | 650 | 800 | 0.3 | 1 | 5 | 300 |
| B38B01W | 38 | 32 | 10 BG | SbCs | 25 | B - c | 60 | 5 | 10 | 1 | 20 | 650 | 800 | 0.3 | 1 | 5 | 300 |

Comprehensive data sheets for all of the above types are available on request, or can be downloaded from www.detectorteo.com

Outline drawings mm

(add 0.8mm to diameter when insulating sleeving is specified)

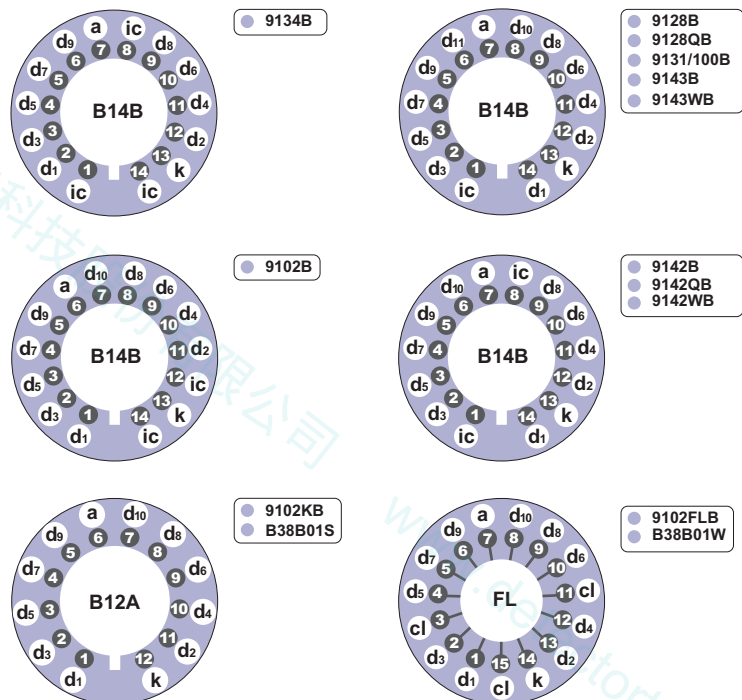


| max rated A/Lm (gain) | pulse rise time ns | pulse fwhm ns | type | Special features | Accessories | | | |
|-----------------------|--------------------|---------------|-----------|--|-------------|--------|------------------------|--------|
| | | | | | Socket | Shield | Voltage divider series | |
| | | | | | | | passive | active |
| 2000 | 3.5 | 5 | 9128B | variant of 9125, fast response, high peak current linearity. | B14B | MS30B | C637 | C686 |
| 2000 | 3.5 | 5 | 9128QB | variant of 9128B with UV sensitivity to 165nm. | B14B | MS30B | C637 | C686 |
| 2000 | 3.5 | 5 | 9131/100B | variant of 9125B, 2.5 mm effective diameter, low dark count and afterpulse rate. | B14B | MS30B | C637 | C686 |
| 200 | 4.5 | 7.5 | 9134B | variant of 9125B, lower gain for higher light level applications. | B14B | MS30A | C615 | - |
| 500 | 1.5 | 2.1 | 9142B | ultra fast, linear focused 10 stage pmt. | B14B | MS30A | C620 | - |
| 500 | 1.5 | 2.1 | 9142QB | variant of 9142B with UV sensitivity to 165nm. | B14B | MS30A | C620 | - |
| 500 | 1.5 | 2.1 | 9142WB | variant of 9142B with UV sensitivity to 185nm. | B14B | MS30A | C620 | - |
| 2000 | 1.6 | 2.2 | 9143B | ultra fast, linear focused 11 stage pmt. | B14B | MS30A | C637 | - |
| 2000 | 1.6 | 2.2 | 9143WB | variant of 9143B with UV sensitivity to 185nm. | B14B | MS30A | C637 | - |
| 500 | 3 | 6 | 9102B | high performance parent type. | B14B | MS38A | C646 | C6004 |
| 500 | 3 | 6 | 9102FLB | variant of 9102B with flexible leads. | FL | MS38A | C653 | C6004 |
| 500 | 3 | 6 | 9102KB | variant of 9102B with capped base. | B12A | MS38A | C674 | C6004 |
| 500 | 15 | 30 | B38B01S | general purpose, good overall performance, capped base. | B12A | MS38A | C674 | C6004 |
| 500 | 15 | 30 | B38B01W | variant of B38B01S with flexible leads. | FL | MS38A | C653 | C6004 |

aded from www.et-enterprises.com

Base configurations

(Viewed from below)



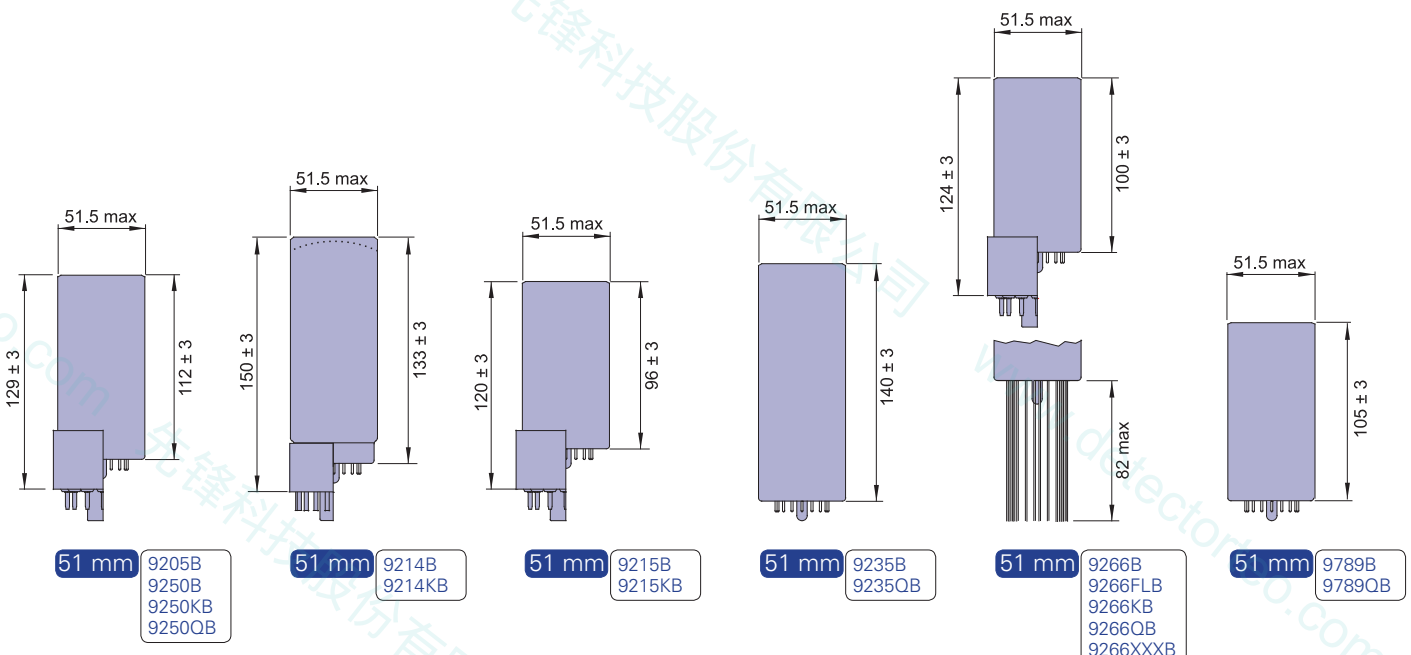
blue-green sensitive bialkali 51mm (2") diameter

| type | Characteristics | | | | Photocathode sensitivity | | | | | | Photomultiplier performance | | | | | | |
|----------|---------------------|----------------------------|--------------------------|----------------|--------------------------|----------|---------------|--------|------------|------------|-----------------------------|--------------|----------|-----------------------|-------------------------|---------------------|-----------------------------------|
| | diameter nominal mm | active diameter nominal mm | number & type of dynodes | dynode surface | QE (%) peak typical | QE Curve | uA/Lm typical | CB min | CB typical | CR typical | nominal A/Lm | Vk-a typical | Vk-a max | gain X10 ⁶ | dark current typical nA | dark current max nA | dark rate typical s ⁻¹ |
| 9205B | 51 | 48 | 10 LF | SbCs | 30 | B - c | 70 | 8 | 11.5 | 2 | 200 | 1000 | 1350 | 3 | 0.5 | 10 | 300 |
| 9214B | 51 | 46 | 12 LF | SbCs | 30 | B - c | 70 | 8 | 11.5 | 2 | 500 | 1250 | 1800 | 7 | 1 | 10 | 300 |
| 9214KB | 51 | 48 | 12 LF | SbCs | 30 | B - c | 70 | 8 | 11.5 | 2 | 500 | 1250 | 1800 | 7 | 1 | 10 | 300 |
| 9215B | 51 | 48 | 8 LF | SbCs | 30 | B - c | 80 | 9 | 12.5 | 2 | 10 | 900 | 1150 | 0.1 | 0.01 | 1 | - |
| 9215KB | 51 | 48 | 8 LF | SbCs | 30 | B - c | 80 | 9 | 12.5 | 2 | 10 | 900 | 1150 | 0.1 | 0.01 | 1 | - |
| 9235B | 51 | 48 | 13 LF | SbCs | 30 | B - c | 80 | 9 | 12.5 | 2 | 2000 | 1000 | 1400 | 25 | 6 | 50 | 300 |
| 9235QB | 51 | 48 | 13 LF | SbCs | 30 | Q - c | 80 | 9 | 12.5 | 2 | 2000 | 1000 | 1400 | 25 | 6 | 50 | 300 |
| 9250B | 51 | 48 | 10 LF | SbCs | 30 | B - c | 80 | 9 | 12.5 | 2 | 50 | 850 | 1150 | 0.6 | 0.3 | 1.5 | 300 |
| 9250KB | 51 | 48 | 10 LF | SbCs | 30 | B - c | 80 | 9 | 12.5 | 2 | 50 | 850 | 1150 | 0.6 | 0.3 | 1.5 | 300 |
| 9250QB | 51 | 48 | 10 LF | SbCs | 30 | Q - c | 80 | 9 | 12.5 | 2 | 50 | 850 | 1150 | 0.6 | 0.3 | 1.5 | 300 |
| 9266B | 51 | 48 | 10 LF | SbCs | 30 | B - c | 70 | 8 | 11.5 | 2 | 50 | 850 | 1100 | 0.6 | 0.3 | 1.5 | 300 |
| 9266FLB | 51 | 48 | 10 LF | SbCs | 30 | B - c | 70 | 8 | 11.5 | 2 | 50 | 850 | 1100 | 0.6 | 0.3 | 1.5 | 300 |
| 9266KB | 51 | 48 | 10 LF | SbCs | 30 | B - c | 70 | 8 | 11.5 | 2 | 50 | 850 | 1100 | 0.6 | 0.3 | 1.5 | 300 |
| 9266QB | 51 | 48 | 10 LF | SbCs | 30 | Q - c | 70 | 8 | 11.5 | 2 | 50 | 850 | 1100 | 0.6 | 0.3 | 1.5 | 300 |
| 9266XXXB | 51 | 48 | 10 LF | SbCs | 30 | B - c | 70 | 8 | 11.5 | 2 | 50 | 850 | 1100 | 0.6 | 0.3 | 1.5 | 300 |
| 9789B | 51 | 10 | 13 VB | SbCs | 25 | B - c | 80 | 7 | 10 | 2.5 | 2000 | 1100 | 1500 | 25 | 0.5 | 2 | 60 |
| 9789QB | 51 | 10 | 13 VB | SbCs | 25 | Q - c | 80 | 7 | 10 | 2.5 | 2000 | 1100 | 1500 | 25 | 0.5 | 2 | 60 |

Comprehensive data sheets for all of the above types are available on request, or can be downloaded from www.detector-teo.com

Outline drawings mm

(add 0.8mm to diameter when insulating sleeving is specified)

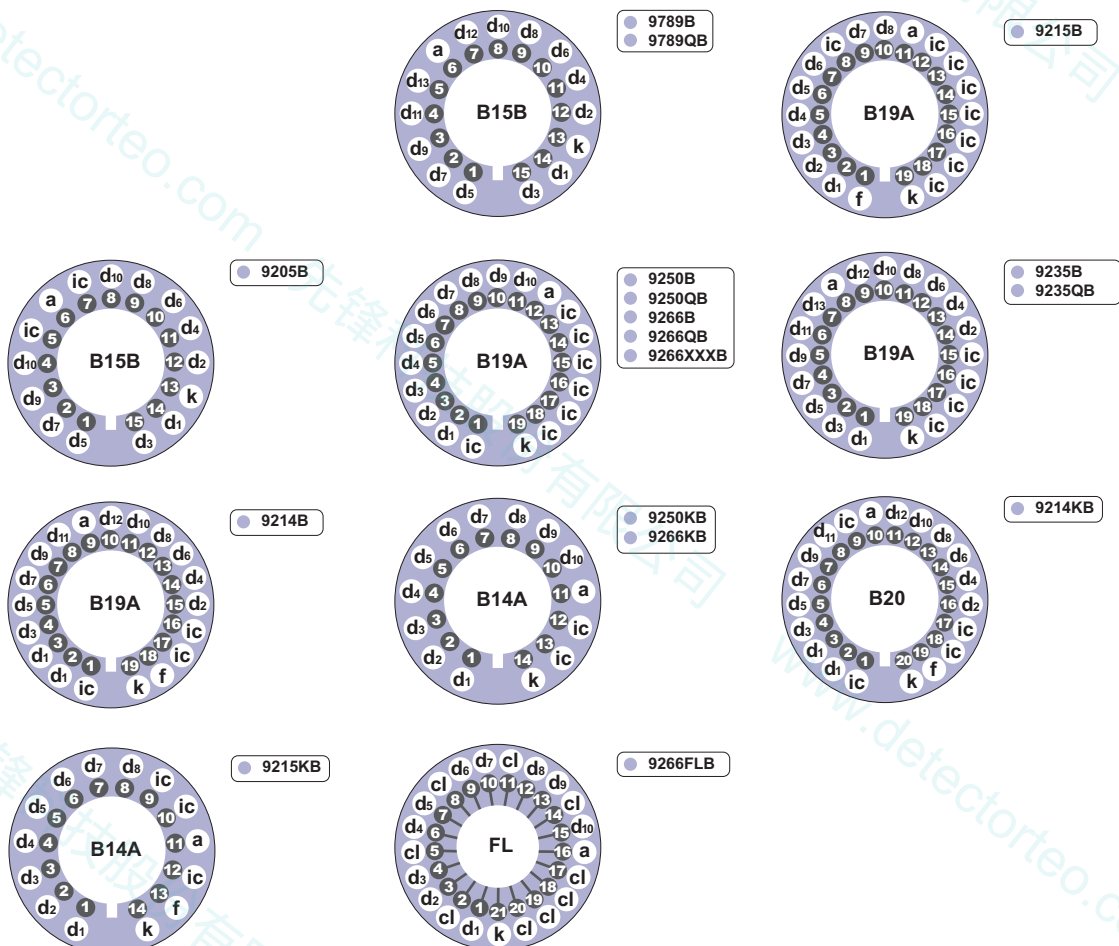


| max rated A/Lm (gain) | pulse rise time ns | pulse fwhm ns | type | Special features | Accessories | | | |
|-----------------------|--------------------|---------------|----------|---|-------------|----------|------------------------|--------|
| | | | | | Socket | Shield | Voltage divider series | |
| | | | | | | | passive | active |
| 2000 | 4 | 6.5 | 9205B | 10 stage plug-in replacement for 11 stage 6097B. | B15B | MS52A(F) | C621 | - |
| 2000 | 2 | 3 | 9214B | variant of 9814B, SbCs dynodes to minimise rate effect. | B19A | MS52B(F) | C638 | - |
| 2000 | 2 | 3 | 9214KB | variant of 9214B with capped base. | B20 | MS52B(F) | C640 | - |
| 50 | 4 | 6.5 | 9215B | variant of 9266B, short length and 8 dynodes for higher light levels. | B19A | MS52A(F) | C684 | - |
| 50 | 4 | 6.5 | 9215KB | variant of 9215B with capped base. | B14A | MS52E | C633 | - |
| 5000 | 5 | 10 | 9235B | variant of 9266B, high gain, replaces 9635B. | B19A | MS52C(F) | C679 | - |
| 5000 | 5 | 10 | 9235QB | variant of 9235B with UV sensitivity to 165nm. | B19A | MS52C(F) | C679 | - |
| 500 | 4 | 6.5 | 9250B | variant of 9266B, higher sensitivity, low dark count, replaces 9750B. | B19A | MS52A(F) | C647 | - |
| 500 | 4 | 6.5 | 9250KB | variant of 9250B with capped base. | B14A | MS52E | C636 | - |
| 500 | 4 | 6.5 | 9250QB | variant of 9250B with UV sensitivity to 165nm. | B19A | MS52A(F) | C647 | - |
| 500 | 4 | 6.5 | 9266B | 10 stage, high performance parent type. | B19A | MS52A(F) | C647 | - |
| 500 | 4 | 6.5 | 9266FLB | variant of 9266B with flexible leads. | FL | MS52A | C655 | - |
| 500 | 4 | 6.5 | 9266KB | variant of 9266B with capped base. | B14A | MS52E | C636 | - |
| 500 | 4 | 6.5 | 9266QB | variant of 9266B with UV sensitivity to 165nm. | B19A | MS52A(F) | C647 | - |
| 500 | 4 | 6.5 | 9266XXXB | variant of 9266B with low background glass . | B19A | MS52A(F) | C647 | - |
| 5000 | 10 | 20 | 9789B | variant of 9235, 10mm effective cathode diameter, shorter length, 15 pin base | B15B | MS52A | - | - |
| 5000 | 10 | 20 | 9789QB | variant of 9789B with UV sensitivity to 165nm. | B15B | MS52A | - | - |

aded from www.et-enterprises.com

Base configurations

(Viewed from below)



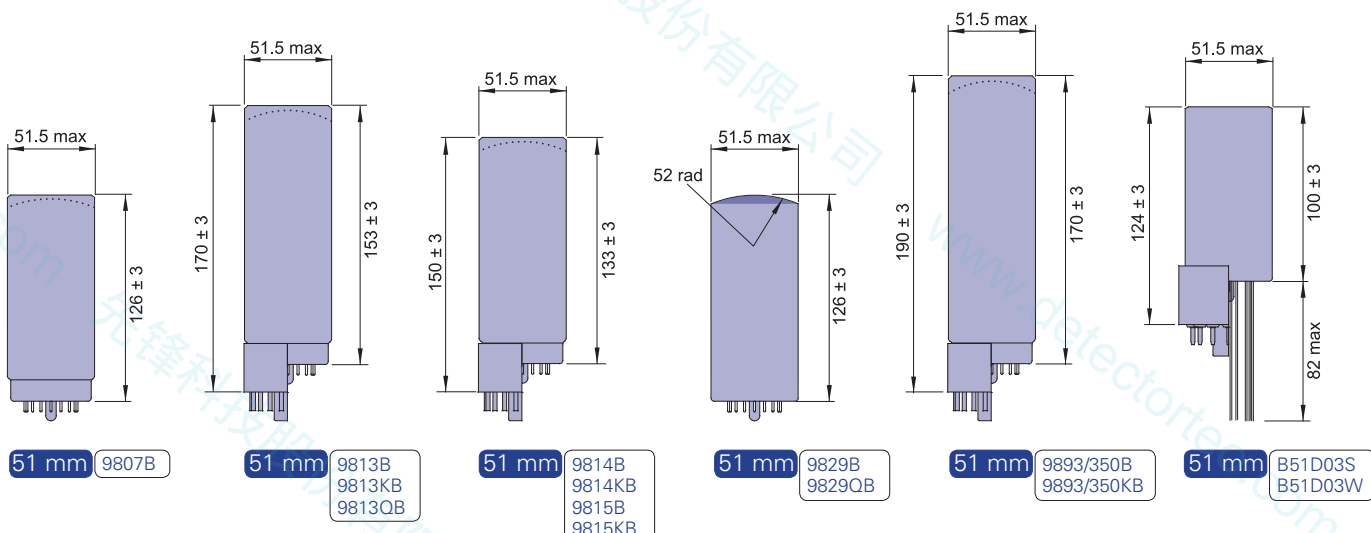
blue-green sensitive bialkali 51mm (2") diameter

| type | Characteristics | | | | Photocathode sensitivity | | | | | | Photomultiplier performance | | | | | |
|------------|---------------------|----------------------------|--------------------------|----------------|--------------------------|----------|---------------|--------|------------|------------|-----------------------------|--------------|----------|-----------------------|-------------------------|---------------------|
| | diameter nominal mm | active diameter nominal mm | number & type of dynodes | dynode surface | QE (%) peak typical | QE Curve | uA/Lm typical | CB min | CB typical | CR typical | nominal A/Lm | Vk-a typical | Vk-a max | gain X10 ⁶ | dark current typical nA | dark current max nA |
| 9807B | 51 | 46 | 12 LF | BeCu | 30 | B - c | 70 | 8 | 11.5 | 2 | 500 | 1650 | 2300 | 7 | 3 | 20 |
| 9813B | 51 | 46 | 14 LF | BeCu | 30 | B - c | 70 | 8 | 11.5 | 2 | 5000 | 2100 | 2500 | 70 | 10 | 200 |
| 9813KB | 51 | 46 | 14 LF | BeCu | 30 | B - c | 70 | 8 | 11.5 | 2 | 5000 | 2100 | 2500 | 70 | 10 | 200 |
| 9813QB | 51 | 46 | 14 LF | BeCu | 30 | Q - c | 70 | 8 | 11.5 | 2 | 5000 | 2100 | 2500 | 70 | 10 | 200 |
| 9814B | 51 | 46 | 12 LF | BeCu | 30 | B - c | 70 | 8 | 11.5 | 2 | 500 | 1950 | 2300 | 7 | 3 | 20 |
| 9814KB | 51 | 46 | 12 LF | BeCu | 30 | B - c | 70 | 8 | 11.5 | 2 | 500 | 1950 | 2300 | 7 | 3 | 20 |
| 9815B | 51 | 46 | 10 LF | BeCu | 30 | B - c | 70 | 8 | 11.5 | 2 | 50 | 1800 | 2300 | 0.7 | 0.3 | 10 |
| 9815KB | 51 | 46 | 10 LF | BeCu | 30 | B - c | 70 | 8 | 11.5 | 2 | 50 | 1800 | 2300 | 0.7 | 0.3 | 10 |
| 9829B | 51 | 46 | 12 LF | BeCu | 30 | B - c | 85 | 9.5 | 12.5 | 2 | 500 | 1600 | 1900 | 6 | 3 | 10 |
| 9829QB | 51 | 46 | 12 LF | BeCu | 30 | Q - c | 85 | 9.5 | 12.5 | 2 | 500 | 1600 | 1900 | 6 | 3 | 10 |
| 9893/350B | 51 | 9 | 14 LF | BeCu | 25 | B - c | 60 | 7 | 10 | 2 | 5000 | 2200 | 2700 | 80 | 0.5 | 1 |
| 9893/350KB | 51 | 9 | 14 LF | BeCu | 25 | B - c | 60 | 7 | 10 | 2 | 5000 | 2200 | 2700 | 80 | 0.5 | 1 |
| B51D03S | 51 | 46 | 10 BG | BeCu | 23 | B - c | 70 | 5 | 10 | 3 | 2 | 800 | 1200 | 0.03 | 0.2 | 1 |
| B51D03W | 51 | 46 | 10 BG | BeCu | 25 | B - c | 70 | 5 | 10 | 3 | 2 | 800 | 1200 | 0.03 | 0.2 | 1 |

Comprehensive data sheets for all of the above types are available on request, or can be downloaded from www.detectorteo.com/

Outline drawings mm

(add 0.8mm to diameter when insulating sleeving is specified)

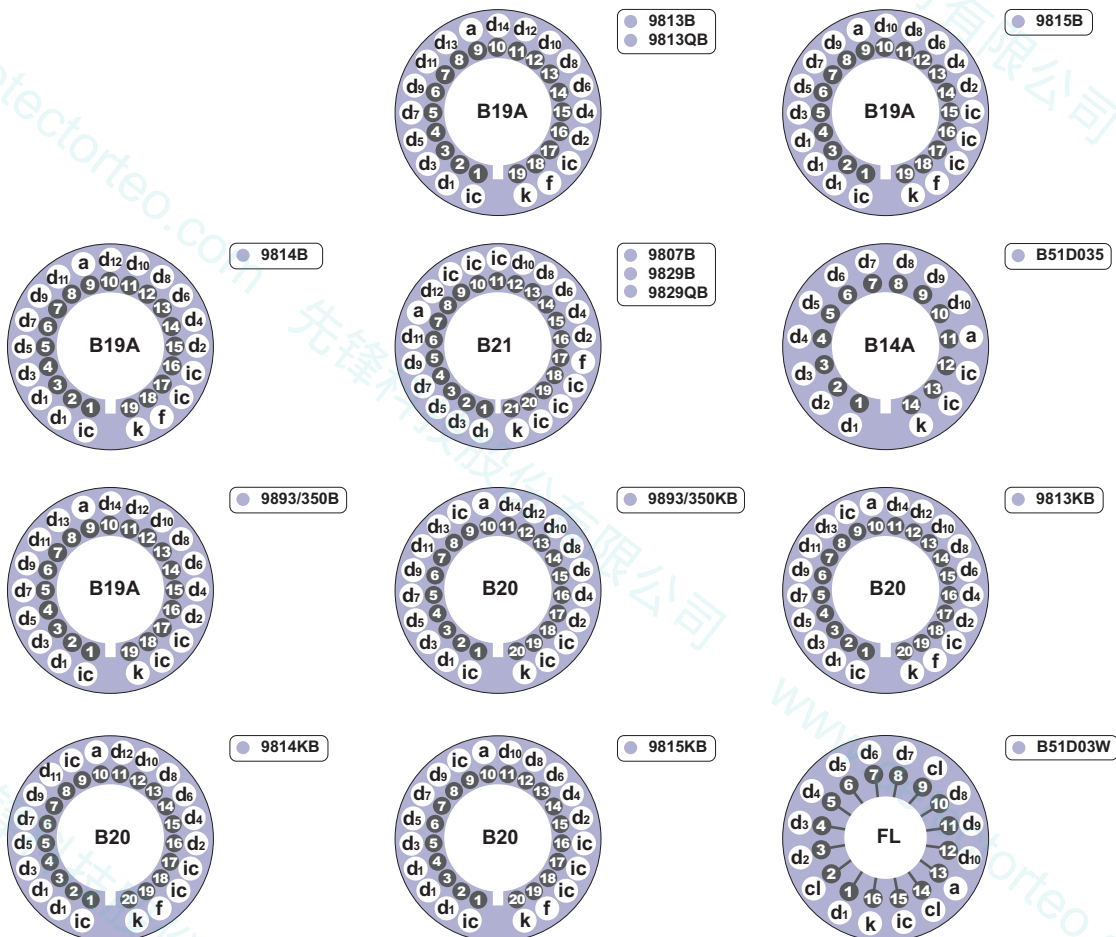


| dark rate typical s ⁻¹ | max rated A/Lm (gain) | pulse rise time ns | pulse fwhm ns | type | Special features | Accessories | | | |
|-----------------------------------|-----------------------|--------------------|---------------|------------|---|-------------|----------|------------------------|--------|
| | | | | | | Socket | Shield | Voltage divider series | |
| | | | | | | | | passive | active |
| 300 | 2000 | 2 | 3 | 9807B | variant of 9829B, plano-concave window, replaces 8575 type. | B21 | MS52B(E) | C628 | - |
| 300 | 10000 | 2 | 3 | 9813B | variant of 9814B, 14 dynodes for higher gain capability. | B19A | MS52C(F) | C638 | - |
| 300 | 10000 | 2 | 3 | 9813KB | variant of 9813B with capped base. | B20 | MS52C | C643 | - |
| 300 | 10000 | 2 | 3 | 9813QB | variant of 9813B with UV sensitivity to 165nm. | B19A | MS52C(F) | C638 | - |
| 300 | 2000 | 2 | 3 | 9814B | 12 stage fast linear focused type with good linearity. | B19A | MS52B(F) | C638 | - |
| 300 | 2000 | 2 | 3 | 9814KB | variant of 9814B with capped base. | B20 | MS52B | C640 | - |
| 300 | 500 | 2 | 3 | 9815B | variant of 9814B, 10 dynodes for higher light levels. | B19A | MS52B(F) | C638 | - |
| 300 | 500 | 2 | 3 | 9815KB | variant of 9815B with capped base. | B20 | MS52B | C644 | - |
| 300 | 2000 | 2 | 3 | 9829B | for low light levels, thin low background glass window. | B21 | MS52B(E) | C628 | - |
| 300 | 2000 | 2 | 3 | 9829QB | variant of 9829B with fused silica window for very low background. | B21 | MS52B(E) | C628 | - |
| 40 | 10000 | 2.5 | 3.5 | 9893/350B | variant of 9813B, small effective dia, low dark count, low afterpulses. | B19A | MS52D(F) | C638 | - |
| 40 | 10000 | 2.5 | 3.5 | 9893/350KB | variant of 9893/350B with capped base. | B20 | MS52D | C641 | - |
| 300 | 20 | 15 | 30 | B51D03S | general purpose scintillation counting. | B14A | MS52E | C636 | - |
| 300 | 20 | 15 | 30 | B51D03W | general purpose scintillation counting, flexible wires | FL | MS52A | C647 | - |

aded from www.et-enterprises.com

Base configurations

(Viewed from below)



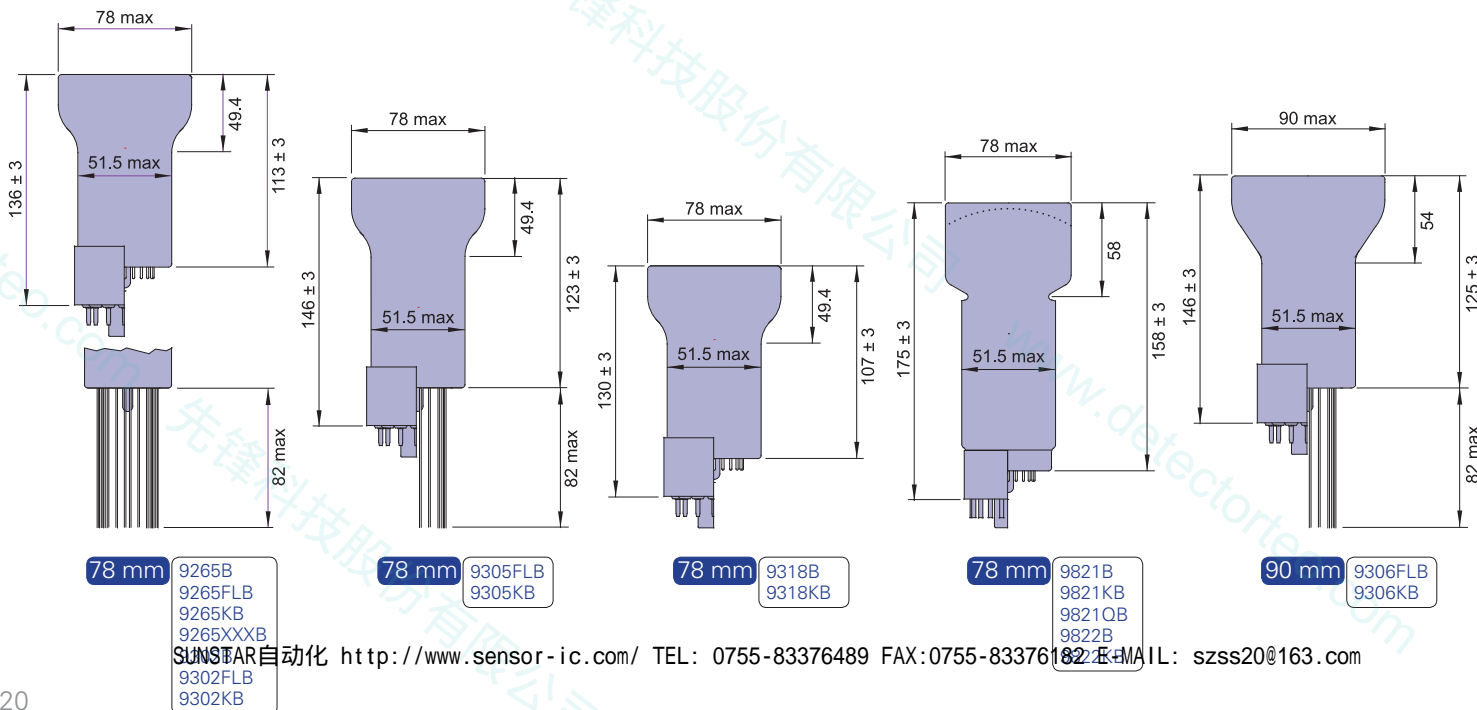
blue-green sensitive bialkali 78 and 90mm (3" and 3½") diameter

| type | Characteristics | | | | Photocathode sensitivity | | | | | | Photomultiplier performance | | | | | | |
|---------|---------------------|----------------------------|--------------------------|----------------|--------------------------|----------|---------------|--------|------------|------------|-----------------------------|--------------|----------|-----------------------|-------------------------|---------------------|-----------------------------------|
| | diameter nominal mm | active diameter nominal mm | number & type of dynodes | dynode surface | QE (%) peak typical | QE Curve | uA/Lm typical | CB min | CB typical | CR typical | nominal A/Lm | Vk-a typical | Vk-a max | gain X10 ⁶ | dark current typical nA | dark current max nA | dark rate typical s ⁻¹ |
| 9265B | 78 | 70 | 9 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 950 | 1300 | 0.7 | 0.5 | 5 | - |
| 9265FLB | 78 | 70 | 9 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 950 | 1300 | 0.7 | 0.5 | 5 | - |
| 9265KB | 78 | 70 | 9 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 950 | 1300 | 0.7 | 0.5 | 5 | - |
| 9265XXB | 78 | 70 | 9 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 950 | 1300 | 0.7 | 0.5 | 5 | - |
| 9302B | 78 | 70 | 9 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 950 | 1300 | 0.7 | 0.5 | 5 | - |
| 9302FLB | 78 | 70 | 9 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 950 | 1300 | 0.7 | 0.5 | 5 | - |
| 9302KB | 78 | 70 | 9 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 950 | 1300 | 0.7 | 0.5 | 5 | - |
| 9305FLB | 78 | 70 | 10 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 850 | 1700 | 0.7 | 0.5 | 10 | 500 |
| 9305KB | 78 | 70 | 10 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 850 | 1700 | 0.7 | 0.5 | 10 | 500 |
| 9318B | 78 | 70 | 8 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 10 | 900 | 2000 | 0.13 | 0.05 | 2 | - |
| 9318KB | 78 | 70 | 8 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 10 | 900 | 2000 | 0.13 | 0.05 | 2 | - |
| 9821B | 78 | 67 | 12 LF | BeCu | 30 | B - c | 75 | 8 | 12 | 2 | 500 | 2000 | 2600 | 7 | 10 | 50 | 500 |
| 9821KB | 78 | 67 | 12 LF | BeCu | 30 | B - c | 75 | 8 | 12 | 2 | 500 | 2000 | 2600 | 7 | 10 | 50 | 500 |
| 9821QB | 78 | 67 | 12 LF | BeCu | 30 | Q - c | 75 | 8 | 12 | 2 | 500 | 2000 | 2600 | 7 | 10 | 50 | 500 |
| 9822B | 78 | 67 | 10 LF | BeCu | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 1800 | 2300 | 0.7 | 1 | 10 | 500 |
| 9822KB | 78 | 67 | 10 LF | BeCu | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 1800 | 2300 | 0.7 | 1 | 10 | 500 |
| 9306FLB | 90 | 80 | 10 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 1200 | 1450 | 0.7 | 1 | 10 | 1000 |
| 9306KB | 90 | 80 | 10 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 50 | 1200 | 1450 | 0.7 | 1 | 10 | 1000 |

Comprehensive data sheets for all of the above types are available on request, or can be downloaded from www.detector-teo.com

Outline drawings mm

(add 0.8mm to diameter when insulating sleeving is specified)

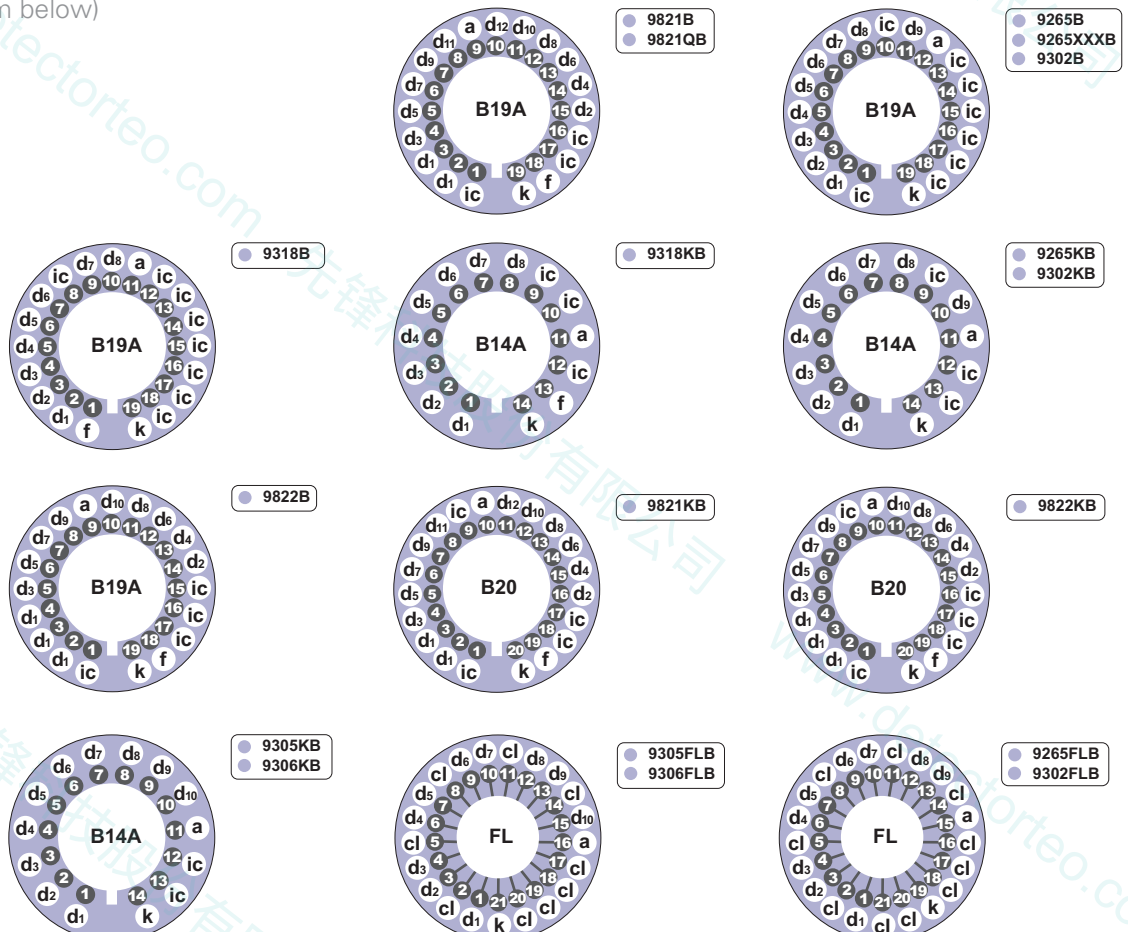


| max rated A/Lm (gain) | pulse rise time ns | pulse fwhm ns | type | Special features | Socket | Shield | Accessories | | |
|-----------------------|--------------------|---------------|----------|--|--------|---------|------------------------|---------|--------|
| | | | | | | | Voltage divider series | passive | active |
| | | | | | | | | | |
| 200 | 7.5 | 15 | 9265B | high performance type, good energy resolution. | B19A | MS75/90 | C648 | - | |
| 200 | 7.5 | 15 | 9265FLB | variant of 9265B with flexible leads. | FL | MS75/90 | C656 | - | |
| 200 | 7.5 | 15 | 9265KB | variant of 9265B with capped base. | B14A | - | C634 | - | |
| 200 | 7.5 | 15 | 9265XXXB | variant of 9265B with low background glass. | B19A | MS75/90 | C648 | - | |
| 200 | 7.5 | 15 | 9302B | variant of 9265B, ultra low background glass window and envelope. | B19A | MS75/90 | C648 | - | |
| 200 | 7.5 | 15 | 9302FLB | variant of 9302B with flexible leads. | FL | MS75/90 | C656 | - | |
| 200 | 7.5 | 15 | 9302KB | variant of 9302FLB with capped base. | B14A | - | C634 | - | |
| 200 | 7.5 | 15 | 9305FLB | variant of 9265B, 10 dynodes for higher gain. | FL | MS75/90 | C655 | - | |
| 200 | 7.5 | 15 | 9305KB | variant of 9305FLB with capped base. | B14A | - | C636 | - | |
| 50 | 7.5 | 15 | 9318B | variant of 9305FLB, short length, 8 dynodes for high light levels. | B19A | MS75/90 | C684 | - | |
| 50 | 7.5 | 15 | 9318KB | variant of 9318B with capped base. | B14A | - | C633 | - | |
| 2000 | 2.1 | 3.2 | 9821B | 12 stage fast linear focused type, good SER. | B19A | MS75/90 | C638 | - | |
| 2000 | 2.1 | 3.2 | 9821KB | variant of 9821B with capped base. | B20 | - | C640 | - | |
| 2000 | 2.1 | 3.2 | 9821QB | variant of 9821B with UV sensitivity to 165nm. | B19A | MS75/90 | C638 | - | |
| 500 | 2 | 3 | 9822B | variant of 9821B, 10 dynodes for higher light levels. | B19A | MS75/90 | C638 | - | |
| 500 | 2 | 3 | 9822KB | variant of 9822B with capped base. | B20 | - | C644 | - | |
| 200 | 7.5 | 16 | 9306FLB | variant of 9305FLB with larger (90 mm) diameter. | FL | MS75/90 | C655 | - | |
| 200 | 7.5 | 16 | 9306KB | variant of 9306FLB with capped base. | B14A | - | C636 | - | |

aded from www.et-enterprises.com

Base configurations

(Viewed from below)



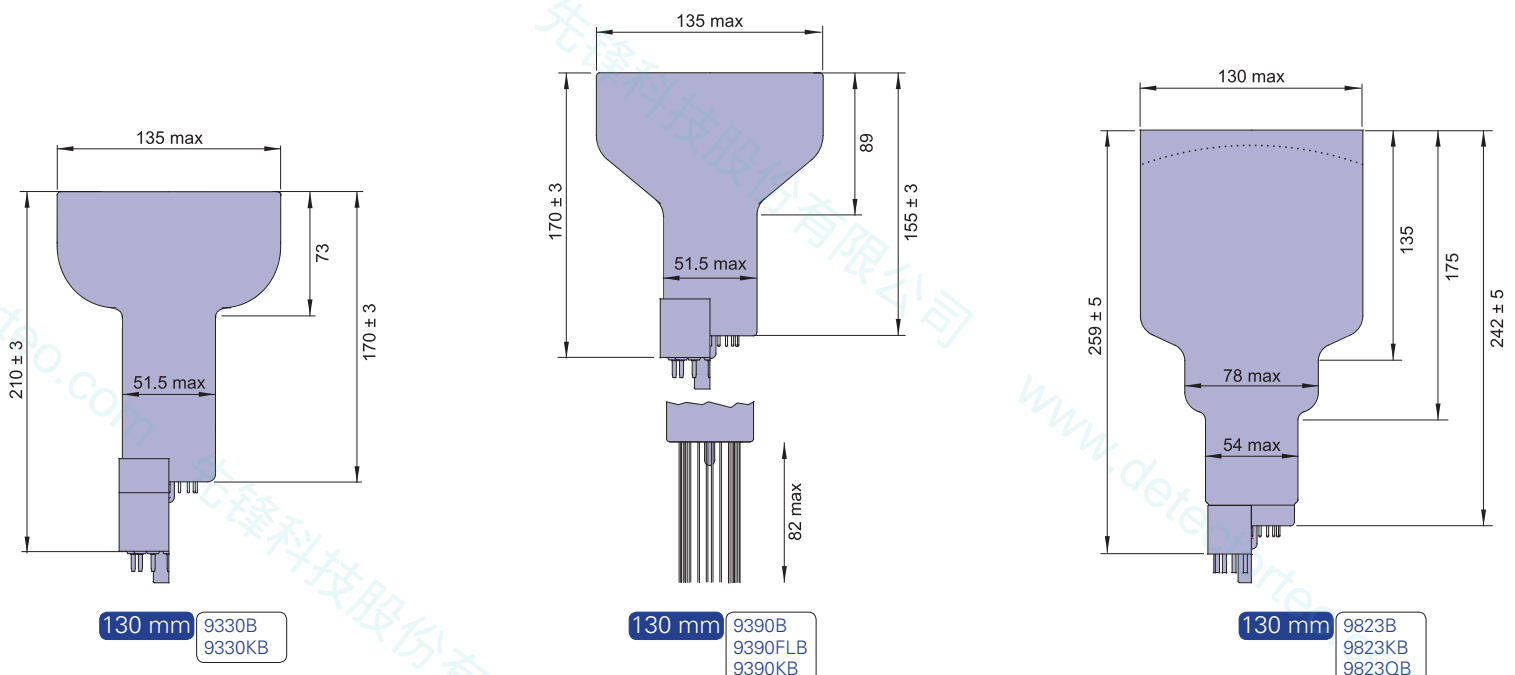
blue-green sensitive bialkali 130 and 200mm (5" and 8") diameter

| type | Characteristics | | | | Photocathode sensitivity | | | | | | Photomultiplier performance | | | | | | |
|---------|---------------------|----------------------------|--------------------------|----------------|--------------------------|----------|---------------|--------|------------|------------|-----------------------------|--------------|----------|-----------------------|-------------------------|---------------------|-----------------------------------|
| | diameter nominal mm | active diameter nominal mm | number & type of dynodes | dynode surface | QE (%) peak typical | QE Curve | uA/Lm typical | CB min | CB typical | CR typical | nominal A/Lm | Vk-a typical | Vk-a max | gain X10 ⁶ | dark current typical nA | dark current max nA | dark rate typical s ⁻¹ |
| 9330B | 130 | 115 | 11 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 200 | 1200 | 1700 | 3 | 4 | 100 | 1500 |
| 9330KB | 130 | 115 | 11 LF | SbCs | 30 | B - c | 75 | 8 | 12 | 2 | 200 | 1200 | 1700 | 3 | 4 | 100 | 1500 |
| 9390B | 130 | 115 | 10 LF | SbCs | 28 | B - c | 75 | 9 | 12 | 2 | 50 | 1000 | 1500 | 0.7 | 1 | 20 | 1500 |
| 9390FLB | 130 | 115 | 10 LF | SbCs | 28 | B - c | 75 | 9 | 12 | 2 | 50 | 1000 | 1500 | 0.7 | 1 | 20 | 1500 |
| 9390KB | 130 | 115 | 10 LF | SbCs | 28 | B - c | 75 | 9 | 12 | 2 | 50 | 1000 | 1500 | 0.7 | 1 | 20 | 1500 |
| 9823B | 130 | 110 | 14 LF | BeCu | 30 | B - c | 65 | 7 | 11 | 1 | 5000 | 2400 | 3000 | 80 | 100 | 1000 | 1500 |
| 9823KB | 130 | 110 | 14 LF | BeCu | 30 | B - c | 65 | 7 | 11 | 1 | 5000 | 2400 | 3000 | 80 | 100 | 1000 | 1500 |
| 9823QB | 130 | 110 | 14 LF | BeCu | 30 | Q - c | 65 | 7 | 11 | 1 | 5000 | 2400 | 3000 | 80 | 100 | 1000 | 1500 |
| 9354FLB | 200 | 190 | 12 LF | SbCs | 30 | B - c | 70 | 70 | 9 | 1 | 500 | 1300 | 1700 | 7 | 10 | 200 | 4000 |
| 9354KB | 200 | 190 | 12 LF | SbCs | 30 | B - c | 70 | 70 | 9 | 1 | 500 | 1300 | 1700 | 7 | 10 | 200 | 4000 |

Comprehensive data sheets for all of the above types are available on request, or can be downloaded from www.detectorteo.com

Outline drawings mm

(add 0.8mm to diameter when insulating sleeving is specified)

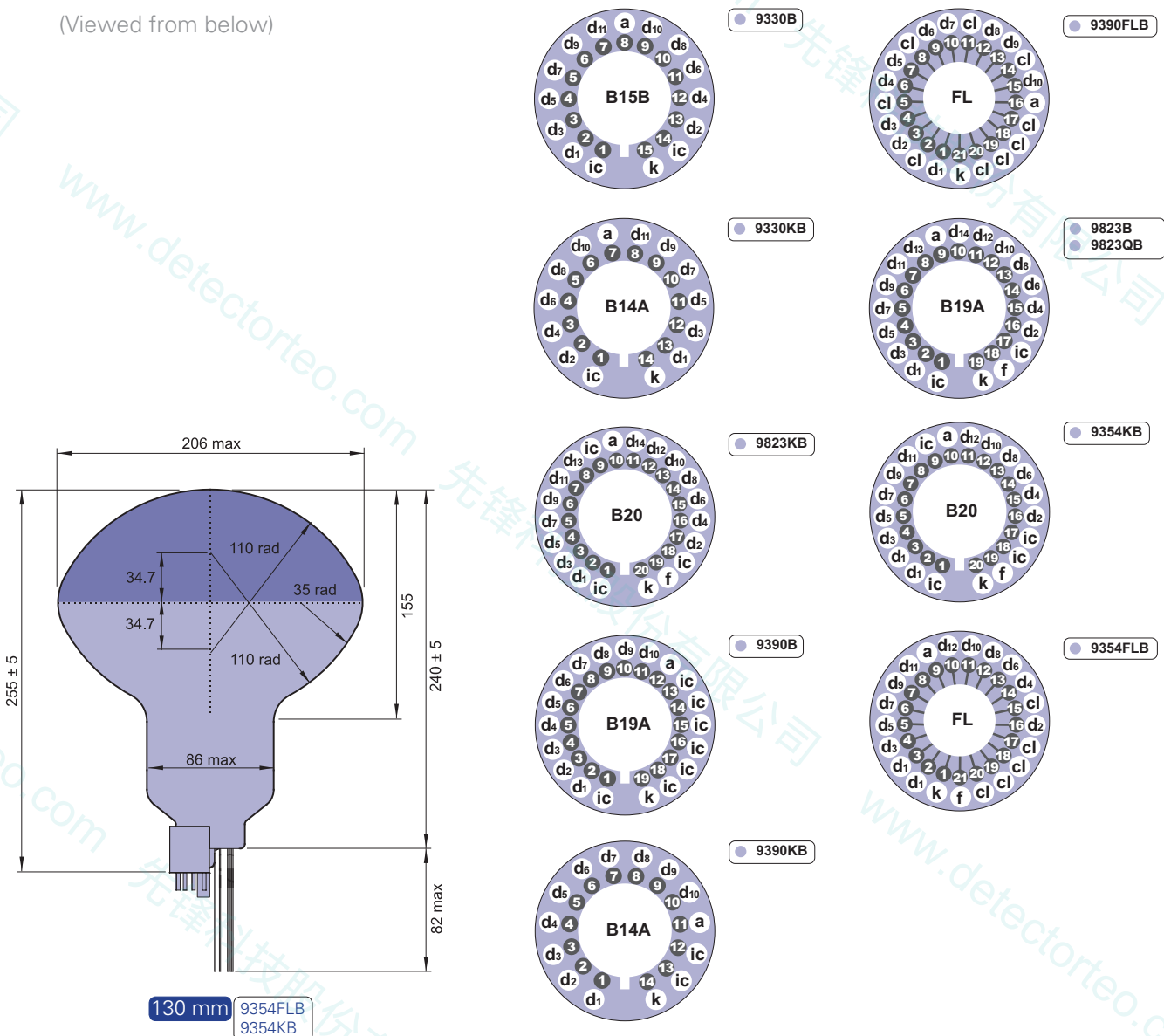


| max rated A/Lm (gain) | pulse rise time ns | pulse fwhm ns | type | Special features | Socket | Shield | Accessories | |
|-----------------------|--------------------|---------------|---------|---|--------|--------|-------------|--------|
| | | | | | | | passive | active |
| | | | | | | | | |
| 2000 | 10 | 15 | 9330B | variant of 9390B, higher gain capability replacing 9530B and 9930B. | B19A | MS130A | C623 | - |
| 2000 | 10 | 15 | 9330KB | variant of 9330B with capped base. | B14A | MS130B | C632 | - |
| 200 | 10 | 15 | 9390B | high performance parent type with good energy resolution. | B19A | MS130A | C647 | - |
| 200 | 10 | 15 | 9390FLB | variant of 9390B with flexible wires. | FL | MS130A | C655 | - |
| 200 | 10 | 15 | 9390KB | variant of 9390B with capped base. | B14A | MS130B | C636 | - |
| 10000 | 2.7 | 3.6 | 9823B | very high gain capability and fast response. | B19A | MS130A | C638 | - |
| 10000 | 2.7 | 3.6 | 9823KB | variant of 9823B with capped base. | B20 | - | C643 | - |
| 10000 | 2.7 | 3.6 | 9823QB | variant of 9823B with UV sensitivity to 165nm. | B19A | MS130A | C638 | - |
| 2000 | 4 | 6 | 9354FLB | hemispherical, ultra low background, water and pressure resistant envelope. | FL | - | C690 | - |
| 2000 | 4 | 6 | 9354KB | variant of 9354FLB with capped base. | B20 | MS200A | C640 | - |

downloaded from www.et-enterprises.com

Base configurations

(Viewed from below)



130 mm 9354FLB
9354KB