



SOURIAU

8ST Series

VG96912 & JN1003

8ST Series

VG96912 & JN1003



Contents

Overview

- 8ST Series - Presentation 06
- 8ST Series - Applications 06
- A universal product platform 07
- Contact layouts 08
- Contact layouts (matrix) 12
- Cross reference list 14

Standard Version

- Technical features 18
- Ordering information 19
- Dimensions 21
- Panel cut-out 24
- Mated/unmated dimensions 24
- Receptacle with straight PC tail contacts 25

Contacts & Tooling

- Straight PC tail contacts 28
- Crimp contacts 29
- Coaxial contacts #12 30
- Solder cup 30
- Quadrax #8 contacts 30
- Wire wrap contacts 31
- Thermocouple contacts 31

- Dummy contacts 32
- Filler plugs 32
- Wiring instructions 33
- Crimping tools 34
- Insertion & extraction tools 35
- Backshell tightening tools 35
- Tightening support 35
- Slackening tools 35

Common Section

- Backshells 38
- Protective caps 39
- Dummy receptacles 40
- Panel gasket 40
- Reductors 41
- Boots 41
- Orientations 41
- Coordinates information 42

Range Extension

- 8STA Series & 8STA derived Series 52
- 847/848 Series 53
- VGE1 Series 53
- micro38999 54
- 851 Series 54

OST Series



8ST Series

Overview

| | |
|---|----|
| ■ 8ST Series - Presentation | 06 |
| ■ 8ST Series - Applications | 06 |
| ■ A universal product platform: MIL-DTL-38999 | 07 |
| ■ Contact layouts | 08 |
| ■ Contact layouts (matrix) | 12 |
| ■ Cross reference list | 14 |



8ST Series

VG96912 & JN1003

8ST Series - Presentation

VG96912 & JN1003

Derived from MIL-C-38999 Series I and II and incorporates lightweight, scoop proof and high contact density features. The design, performance and mechanical robustness of this product meet the requirements of the following applications:

- Military, aerospace,
- Ballistic missiles and weapon systems,
- Marine equipment.

8ST connector features include:

- A very high contact density,
- MIL-DTL-38999 Series I contact layouts,
- The male contacts are recessed into the body to prevent damage by mismatching (100% scoop proof),
- Keyway polarization (master keyway),
- RFI-EMI shielding and shell to shell continuity,
- Receptacle fixings and backshells as per pattern 602 and MIL-C-26482 Series II.

The plug and receptacle bodies, as the endbells, are manufactured from aluminum alloy and protected by cadmium or nickel plating. The shells are locked together by a bayonet coupling mechanism. Gold plated crimp or straight PC tail contacts are extracted from connector rear and are retained in the insulator by a metal clip.



8ST Series - Applications





A universal product platform: MIL-DTL-38999



38999 Series I: 8LT Series

- ▶ High density (#22D) MIL-spec circular
- ▶ Scoop proof
- ▶ Coupling system: Bayonet
- ▶ Method of mounting: screws or jam nut
- ▶ Shell: Aluminum alloy
- ▶ Plating: olive green cadmium, black zinc nickel or nickel
- ▶ QPL approved
- ▶ Numerous layouts



38999 Series II: 8T Series

- ▶ Short version of MIL-DTL-38999 Series I
- ▶ Low profile = lightweight
- ▶ High density MIL-spec circular (1980's)
- ▶ Non-scoop proof, bayonet coupling
- ▶ Method of mounting: screws or jam nut
- ▶ Shell: Aluminum alloy
- ▶ Plating: cadmium, nickel, hard anodized
- ▶ QPL approved
- ▶ Numerous layouts



38999 Series III: 8D Series

- ▶ High density MIL-spec circular (1980's)
- ▶ Scoop proof, fast screw coupling
- ▶ Composite light-weight version available
- ▶ QPL approved
- ▶ Titanium version, light-weight, mechanical and environmental performances
- ▶ Quadrax and Elio version
- ▶ Specific versions (clinch nuts, double flange, high power, hermetic, ...)

8ST Series

VG96912 & JN1003



Contact layouts

08

| | | |
|------------------------|--------------------|-------------------|
| 12^{HD} | 35 | 98 |
| | | |
| 12#26 Service R | 6#22D Service M | 3#20 Service I |

- Contact #26 & #22D
- Contact #20
- Contact #16
- Contact #12
- Contact #10
- Contact #8
- Contact #8 Power
- Contact #8 Quadrax
- Contact #4 Power

10

| | | | | | | | |
|--------------------|-------------------|-------------------|-------------------|------------------------|---------------------|------------------------|-------------|
| 01 | 02 | 04 | 05 | 26^{HD} | 35 | 80 | 81 |
| | | | | | | | |
| 1#12 Service II | 2#16 Service I | 4#20 Service I | 5#20 Service I | 26#26 Service R | 13#22D Service M | 1#8 Triax Service I | 1#8 Quadrax |
| 98 | 99 | | | | | | |
| | | | | | | | |
| 6#20 Service I | 7#20 Service I | | | | | | |

12

| | | | | | | |
|-------------------|-------------------|-------------------|----------------------------|---------------------|------------------------|--------------------|
| 03 | 04 | 08 | 26 | 35 | 43^{HD} | 98 |
| | | | | | | |
| 3#16 Service I | 4#16 Service I | 8#20 Service I | 2#12 6#22D Service M | 22#22D Service M | 43#26 Service R | 10#20 Service I |

8ST Series

VG96912 & JN1003



Contact layouts

14

| | | | | | |
|-------------------------------------|---|-------------------------------------|-------------------------------------|--------------------------------------|--|
| 05 5#16 Service II | 15 1#16 14#20 Service I | 18 18#20 Service I | 19 19#20 Service I | 35 37#22D Service M | 97 4#16 8#20 Service I |
|-------------------------------------|---|-------------------------------------|-------------------------------------|--------------------------------------|--|

16

| | | | | | | | |
|---|--|-------------------------------------|---|---|-------------------------------------|--------------------------------------|---|
| 02 38#22D 1#8 Triax Service M | 06* 6#12 Service I | 08 8#16 Service II | 20* 4#12 16#22D Service M | 22 2#12 2#8 Triax Service M | 26 26#20 Service I | 35 55#22D Service M | 75 2#8 Triax Service M |
| 80 2#12 2#8 Quadrax | 81 38#22D 1#8 Quadrax | 82 2#8 Quadrax | 99 2#16 21#20 Service I | | | | |

18

| | | | | | |
|--------------------------------------|---|---|-------------------------------------|--------------------------------------|--|
| 11 11#16 Service II | 18 14#22D 4#8 Triax Service M | 28 26#20 2#16 Service I | 32 32#20 Service I | 35 66#22D Service M | 84 14#22D 4#8 Quadrax |
|--------------------------------------|---|---|-------------------------------------|--------------------------------------|--|

8ST Series

VG96912 & JN1003



Contact layouts

20

| | | | | | | | |
|---|---|--|---|-------------------------------------|---|---|---|
| 11 11#12 Service I | 16 16#16 Service II | 35 79#22D Service M | 39 2#16 37#20 Service I | 41 41#20 Service I | 42 2#4 Power Service I | 48 4#8 Power Service I | 72 2#4 Power 6#16 Service I |
| 75 4#8 Triax Service M | 77 17#22D 2#8 Triax Service M | 78 17#22D 2#8 Quadrax | 84 4#8 Quadrax | | | | |

22

| | | | | | |
|--------------------------------------|-------------------------------------|---------------------------------------|-------------------------------------|--|-------------------------------------|
| 21 21#16 Service II | 32 32#20 Service I | 35 100#22D Service M | 53 53#20 Service I | 54 4#12, 9#16 40#22D Service M | 55 55#20 Service I |
|--------------------------------------|-------------------------------------|---------------------------------------|-------------------------------------|--|-------------------------------------|

8ST Series

VG96912 & JN1003



Contact layouts

| 24 | | | | | | | |
|--|--|--|--|---|---|--|--|
| <p>04</p> <p>8#16 48#20 Service I</p> | <p>07</p> <p>2#8 Triax 97#22D Service M</p> | <p>08*</p> <p>8#8 Triax Service M</p> | <p>19</p> <p>19#12 Service I</p> | <p>24</p> <p>12#16 12#12 Service I</p> | <p>29</p> <p>29#16 Service I</p> | <p>35</p> <p>128#22D Service M</p> | <p>37</p> <p>37#16 Service I</p> |
| <p>41</p> <p>22#22D, 3#20 11#16, 2#12 3#8 Triax Service M</p> | <p>43</p> <p>23#20 20#16 Service I</p> | <p>44</p> <p>4#4 Power 4#16 Service I</p> | <p>46</p> <p>40#20, 4#16 2#8 Coax Service I</p> | <p>61</p> <p>61#20 Service I</p> | <p>81</p> <p>22#22D 3#20, 11#16 2#12 3#8 Quadrax</p> | <p>82</p> <p>97#22D 2#8 Quadrax</p> | <p>86</p> <p>40#20 4#16 2#8 Quadrax</p> |
| <p>90</p> <p>40#20, 4#16 2#8 Twinax Service I</p> | | | | | | | |

8ST Series

VG96912 & JN1003



Contact layouts (matrix)

| Shell Size | Layout | Service | 8ST | VG96912 | JN1003 | | Nber of Contacts | #26 | #22D | #20 | #16 | #12 | #10 | #8 | #4 Power |
|------------|--------|---------|-----|---------|----------|-----------|------------------|-----|------|-----|-----|-----|-------|---------|----------|
| | | | | | 8ST2*034 | Other P/N | | | | | | | | | |
| 08 | 08-12 | R | | | | | 12 | 12 | | | | | | | |
| | 08-35 | M | | Q | Q | Q | 6 | | 6 | | | | | | |
| | 08-98 | I | | | Q | Q | 3 | | | 3 | | | | | |
| 10 | 10-01 | II | | | | | 1 | | | | | 1 | | | |
| | 10-02 | I | | | | Q | 2 | | | | 2 | | | | |
| | 10-04 | I | | | | | 4 | | | 4 | | | | | |
| | 10-05 | I | | | | | 5 | | | 5 | | | | | |
| | 10-26 | R | | | | | 26 | 26 | | | | | | | |
| | 10-35 | M | | Q | Q | Q | 13 | | 13 | | | | | | |
| | 10-80 | I | | | | Q | 1 | | | | | | | 1 Triax | |
| | 10-81 | - | | | | | 1 | | | | | | | 1 Qdx | |
| | 10-98 | I | | Q | Q | Q | 6 | | | 6 | | | | | |
| 10-99 | I | | | | | 7 | | | 7 | | | | | | |
| 12 | 12-01 | | | | | | | | | | | | | | |
| | 12-03 | I | | | | | 3 | | | | 3 | | | | |
| | 12-04 | I | | | | Q | 4 | | | | 4 | | | | |
| | 12-08 | I | | | | | 8 | | | 8 | | | | | |
| | 12-26 | M | | | | | 8 | | 6 | | | 2 | | | |
| | 12-35 | M | | Q | Q | Q | 22 | | 22 | | | | | | |
| | 12-43 | R | | | | | 43 | 43 | | | | | | | |
| 12-98 | I | | Q | Q | Q | 10 | | | 10 | | | | | | |
| 14 | 14-05 | II | | Q | | | 5 | | | | 5 | | | | |
| | 14-15 | I | | | | | 15 | | | 14 | 1 | | | | |
| | 14-18 | I | | | | | 18 | | | 18 | | | | | |
| | 14-19 | I | | Q | Q | Q | 19 | | | 19 | | | | | |
| | 14-35 | M | | Q | Q | Q | 37 | | 37 | | | | | | |
| | 14-97 | I | | Q | Q | Q | 12 | | | 8 | 4 | | | | |
| 16 | 16-02 | M | | | | | 39 | | 38 | | | | | 1 Triax | |
| | 16-06 | I | | Q | | Q | 6 | | | 6 | | | | | |
| | 16-08 | II | | Q | | Q | 8 | | | | 8 | | | | |
| | 16-20 | M | | | | | 20 | | 16 | | | 4 | | | |
| | 16-22 | M | | | | | 4 | | | | | 2 | | 2 Triax | |
| | 16-26 | I | | Q | | Q | 26 | | | 26 | | | | | |
| | 16-35 | M | | Q | Q | Q | 55 | | 55 | | | | | | |
| | 16-75 | M | | | | | 2 | | | | | | | 2 Triax | |
| | 16-80 | - | | | | | 4 | | | | | 2 | | 2 Qdx | |
| | 16-81 | - | | | | | 39 | | 38 | | | | | 1 Qdx | |
| 16-82 | - | | | | | 2 | | | | | | | 2 Qdx | | |
| 16-99 | I | | Q | | | 23 | | | 21 | 2 | | | | | |
| 18 | 18-11 | II | | Q | | Q | 11 | | | | 11 | | | | |
| | 18-18 | M | | | | | 18 | | 14 | | | | | 4 Triax | |
| | 18-28 | I | | | | | 28 | | | 26 | 2 | | | | |
| | 18-32 | I | | Q | | Q | 32 | | | 32 | | | | | |
| | 18-35 | M | | Q | Q | Q | 66 | | 66 | | | | | | |
| | 18-84 | - | | | | | 18 | | 14 | | | | | 4 Qdx | |

Souriau's layout

Q Qualified layout according corresponding norm

#8 Qdx: Quadrax

8ST Series

VG96912 & JN1003



Contact layouts (matrix)

| Shell Size | Layout | Service | 8ST | VG96912 | JN1003 | | Nber of Contacts | #26 | #22D | #20 | #16 | #12 | #10 | #8 | #4 Power |
|------------|--------|---------|-----|---------|----------|-----------|------------------|-----|------|-----|-----|-----|---------|---------|----------|
| | | | | | 8ST2*034 | Other P/N | | | | | | | | | |
| 20 | 20-11 | I | | | | Q | 11 | | | | | 11 | | | |
| | 20-16 | II | | Q | Q | Q | 16 | | | | 16 | | | | |
| | 20-35 | M | | Q | Q | Q | 79 | 79 | | | | | | | |
| | 20-39 | I | | | | | 39 | | | 37 | 2 | | | | |
| | 20-41 | I | | Q | | Q | 41 | | | 41 | | | | | |
| | 20-42 | I | | | | | 2 | | | | | | | | 2 |
| | 20-48 | I | | | | | 4 | | | | | | | 4 Pow | |
| | 20-72 | I | | | | | 8 | | | | 6 | | | | 2 |
| | 20-75 | - | | | | | 4 | | | | | | | 4 Triax | |
| | 20-77 | M | | | | | 19 | | 17 | | | | | 2 Triax | |
| | 20-78 | - | | | | | 19 | | 17 | | | | | 2 Qdx | |
| 20-84 | - | | | | | 4 | | | | | | | 4 Qdx | | |
| 22 | 22-21 | II | | Q | | Q | 21 | | | | 21 | | | | |
| | 22-32 | I | | | | | 32 | | | 32 | | | | | |
| | 22-35 | M | | Q | Q | Q | 100 | 100 | | | | | | | |
| | 22-53 | I | | | | Q | 53 | | | 53 | | | | | |
| | 22-54 | M | | | | | 53 | 40 | | 9 | 4 | | | | |
| 22-55 | I | | | | | 55 | | | 55 | | | | | | |
| 24 | 24-04 | I | | | | | 56 | | | 48 | 8 | | | | |
| | 24-07 | M | | | | | 99 | 97 | | | | | | 2 Triax | |
| | 24-08 | - | | | | | 8 | | | | | | | 8 Triax | |
| | 24-19 | I | | Q | | Q | 19 | | | | | 19 | | | |
| | 24-24 | II | | | | | 24 | | | | 12 | 12 | | | |
| | 24-29 | I | | | | | 29 | | | | 29 | | | | |
| | 24-35 | M | | Q | Q | Q | 128 | 128 | | | | | | | |
| | 24-37 | I | | | | | 37 | | | | 37 | | | | |
| | 24-41 | N | | | | | 41 | 22 | 3 | 11 | 2 | | | 3 Triax | |
| | 24-43 | I | | | | | 43 | | | 23 | 20 | | | | |
| | 24-44 | I | | | | | 8 | | | | 4 | | | | 4 |
| | 24-46 | I | | | | | 46 | | | 40 | 4 | | | 2 Coax | |
| | 24-61 | I | | Q | | Q | 61 | | | 61 | | | | | |
| | 24-81 | N | | | | | 41 | 22 | 3 | 11 | 2 | | | 3 Qdx | |
| 24-82 | M | | | | | 99 | 97 | | | | | | 2 Qdx | | |
| 24-86 | I | | | | | 46 | | | 40 | 4 | | | 2 Qdx | | |
| 24-90 | I | | | | | 46 | | | 40 | 4 | | | 2 Triax | | |

Souriau's layout

Q Qualified layout according corresponding norm

#8 Pow: Power; Qdx: Quadrax

8ST Series

VG96912 & JN1003



Cross reference list

VG: approval n°307/84

Pr EN3372

JN1003: full qualification under process.

| Connectors | SOURIAU | VG96912 | EN3372* | JN1003 (EFA)* | Designation | |
|------------|--|---------------------------------|------------------------------------|---|---|--------------------------|
| | 8ST0**G**P/SN 8ST0**F/B**P/SN 8ST0**B**P/SN034 8ST0**B**A/BN034 | VG96912A****P/SN - - - | - EN3372F/W0**N**P/SN - - | - - - - | - - JN1003B****P/SN1 JN1003B****P/SN | Square flange receptacle |
| | 8ST1**F/G**P/SN | - | - | - | In line receptacle | |
| | 8ST2**B**P/SN034 8ST2**F/A/BN034 | - - | - - | - - | JN1003H****P/SN1 JN1003H****P/SN | Mounting box receptacle |
| | 8ST5**G**P/SN 8ST5**F/B**P/SN 8ST5**B**P/SN034 8ST5**B**A/BN034 | VG96912D****P/SN - - - | - EN3372F/W6**N**P/SN - - | - - JN1003FG****P/SN1 JN1003FG****P/SN | Plug with EMI/RFI shielding | |
| | 8ST6**G**P/SN 8ST6**F/B**P/SN | VG96912E****P/SN - | - - | - - | Plug without EMI/RFI shielding | |
| | 8ST7**G**P/SN 8ST7**F/B**P/SN 8ST7**B**P/SN034 8ST7**F/B**A/BN034 | VG96912B****P/SN - - - | - EN3372F/W7**N**P/SN - - | - - JN1003A****P/SN1 JN1003A****P/SN | Jam nut receptacle | |

* Please consult us, our product will be evaluated against the final drafts/standards when available.

| Contacts | SOURIAU | VG96912 | EN3372* | JN1003 (EFA)* | Designation | |
|----------|--|---|---------------------------------------|------------------|---|---|
| | 8599-0702 JJ 8599-0703 SA 8599-0704 MJ 8599-0705 MJ | VG96912P22 D VG96912P20 VG96912P16 VG96912P12 | - Separate EN standard in progress | - - - - | - - - - | Crimp male contact #22D Crimp male contact #20 Crimp male contact #16 Crimp male contact #12 |
| | 8599-0706 900 8599-0707-900 8599-0708-900 8599-0709-900 | VG96912S22D1 VG96912S201 VG96912S161 VG96912S121 | - Separate EN standard in progress | - - - - | - - - - | Crimp female contact #22D Crimp female contact #20 Crimp female contact #16 Crimp female contact #12 |
| | M39029/58-360 M39029/58-363 M39029/58-364 M39029/58-365 | - - - - | - - - - | - - - - | JN1003P22D JN1003P20 JN1003P16 JN1003P12 | Crimp male contact #22D Crimp male contact #20 Crimp male contact #16 Crimp male contact #12 |
| | M39029/58-348 M39029/58-351 M39029/58-352 M39029/58-353 | - - - - | - - - - | - - - - | JN1003S22D JN1003S20 JN1003S16 JN1003S12 | Crimp female contact #22D Crimp female contact #20 Crimp female contact #16 Crimp female contact #12 |

* Please consult us, our product will be evaluated against the final drafts/standards when available.

8ST Series

VG96912 & JN1003



Cross reference list

VG: approval n°307/84

Pr EN3372

JN1003: full qualification under process.

| | SOURIAU | VG96912 | EN 3372* | JN1003 (EFA)* | Designation |
|----------------------------|----------------------------|-------------|----------------------------------|---------------|------------------------------|
| Backshells | 8LST101B52 (shell size 08) | - | | | Straight endbell cable clamp |
| | 8LST102B52 (shell size 10) | VG96912G110 | | | |
| | 8LST103B52 (shell size 12) | VG96912G112 | | | |
| | 8LST104B52 (shell size 14) | VG96912G114 | Separate EN standard in progress | | |
| | 8LST105B52 (shell size 16) | VG96912G116 | | | |
| | 8LST106B52 (shell size 18) | VG96912G118 | | | |
| | 8LST107B52 (shell size 20) | VG96912G120 | | | |
| | 8LST108B52 (shell size 22) | VG96912G122 | | | |
| | 8LST109B52 (shell size 24) | VG96912G124 | | | |
| | 8LST101B57 (shell size 08) | - | | | |
| | 8LST102B57 (shell size 10) | VG96912L110 | | | |
| | 8LST103B57 (shell size 12) | VG96912L112 | | | |
| | 8LST104B57 (shell size 14) | VG96912L114 | Separate EN standard in progress | | |
| | 8LST105B57 (shell size 16) | VG96912L116 | | | |
| | 8LST106B57 (shell size 18) | VG96912L118 | | | |
| | 8LST107B57 (shell size 20) | VG96912L120 | | | |
| | 8LST108B57 (shell size 22) | VG96912L122 | | | |
| 8LST109B57 (shell size 24) | VG96912L124 | | | | |

* Please consult us, our product will be evaluated against the final drafts/standards when available.

OST Series



8ST Series

Standard Version

| | |
|---|----|
| ■ Technical features | 18 |
| ■ Ordering information | 19 |
| ■ Dimensions | 21 |
| ■ Panel cut-out | 24 |
| ■ Mated/unmated dimensions | 24 |
| ■ Receptacle with straight PC tail contacts | 25 |



8ST Series

VG96912 & JN1003



Description

- A high density connector from 1 to 128 contacts for all military and aeronautical purposes.
- Contact sizes #22D, #20, #16, #12, #16 coax, #8 triax, #8 and #4 power
- Bayonet locking system
- MIL-DTL-38999 Series I contact layouts
- 100% scoop proof
- EMI/RFI shielding and shell-to-shell continuity
- Standards: JN 1003, VG 96912, pr EN 3372, EFA J 62-017

Technical features

Mechanical

- Shell: aluminum alloy
- Plating:
 - . black zinc nickel (Z)
 - . olive green cadmium (G)
 - . olive green cadmium, spec. 034
 - . 500 hours salt spray (B)
 - . nickel (F)
- Insulator: thermoplastic or metallic version available for specification 284 & 384
- Grommet or seal: liquid silicone rubber or fluorocarbene elastomer for specification 022
- Contact: copper alloy
- Plating contact: gold over nickel
- Endurance: 500 mating/unmating operations
- Shock: 300 g during 3 ms and as per MIL S 901 grade A
- Vibration: 147 m/s², 10 to 2000 Hz
- Contact retention (min force in N):

| Contacts size | 22 | 20 | 16 | 12 | 8 | 4 |
|----------------|----|----|-----|-----|-----|-----|
| Min force in N | 45 | 67 | 111 | 111 | 110 | 200 |

Electrical

- Test voltage (Vrms)

| Service | sea level | at 21000 m |
|---------|-----------|------------|
| R | 400 | N/A |
| M | 1 300 | 800 |
| N | 1 000 | 600 |
| I | 1 800 | 1 000 |
| II | 2 300 | 1 000 |

- Insulation resistance:
≥ 5 000 MW at 500 VAC

- Contact resistance:

| Contacts size | 26 | 22 | 20 | 16 | 12 | 8 | 4 |
|---------------|----|------|-----|-----|-----|---|---|
| Resistance mΩ | 16 | 14.6 | 7.3 | 3.8 | 3.5 | 3 | 2 |

- Contact rating:

| Contacts size | 26 | 22 | 20 | 16 | 12 | 8 | 4 |
|---------------|----|----|-----|----|----|----|----|
| Rating (A) | 3 | 5 | 7.5 | 13 | 23 | 45 | 80 |

- Shell continuity:
 - . black zinc nickel: 2.5 mΩ
 - . olive green plating: 2.5 mΩ
 - . nickel plating: 1 mΩ
- Shielding: 70 db at 0.01 to 100 MHz

- Electrical continuity between contact and shell for specification 284 & 384: 10 mΩ max

Climatic

- Temperature range:
 - . black zinc nickel plating (Z)
- 65°C +175°C
 - . olive green cadmium plating (B or G)
- 65°C +175°C
 - . nickel plating (F)
- 65°C +200°C
- Sealing, mated connectors: Differential pressure 2 bars leakage ≤16 cm³/h
- Salt spray as per:
 - . MIL STD 1344 method 1001:
- 500 hours (plating B, G and Z)
- 48 hours (plating F)
 - . NFC 93422 :
- 48 hours (plating F)
- Resistance to fluids
 - . As per MIL-DTL-38999:
MIL-L-7808, MIL-L-23699, MIL-H-5606, MIL-A-8243, MIL-C-25769, MIL-T-5624 (JP5), hydraulic fluids, solvents
 - . Specification 022 for fuel immersion (please consult us)

8ST Series

VG96912 & JN1003



Ordering information

SOURIAU part numbers

| Basic series | 8ST | 0 | - | 10 | G | 35 | P | N |
|---|-----|---|---|----|---|----|---|---|
| Shell style | | | | | | | | |
| 0: Square flange receptacle | | | | | | | | |
| 1: In line receptacle | | | | | | | | |
| 2: Square flange receptacle, not accepting backshell | | | | | | | | |
| 3: Square flange receptacle, rear mounting | | | | | | | | |
| 5: Plug with RFI/EMI shielding | | | | | | | | |
| 6: Plug without RFI/EMI shielding | | | | | | | | |
| 7: Jam nut receptacle | | | | | | | | |
| Type | | | | | | | | |
| -: Connector with standard crimp contacts | | | | | | | | |
| L: Connector with long PC tail contacts | | | | | | | | |
| M: Connector with medium PC tail contacts | | | | | | | | |
| C: Connector with short PC tail contacts | | | | | | | | |
| Shell size | | | | | | | | |
| 08; 10; 12; 14; 16; 18; 20; 22; 24 | | | | | | | | |
| Plating | | | | | | | | |
| Z: Black zinc nickel | | | | | | | | |
| F: Nickel | | | | | | | | |
| G: Olive green cadmium | | | | | | | | |
| B: Olive green cadmium - spec. 034 mandatory, see specification below | | | | | | | | |
| Contact layout | | | | | | | | |
| See pages 8 to 13 | | | | | | | | |
| Contact type | | | | | | | | |
| P: Pin | | | | | | | | |
| S: Socket | | | | | | | | |
| A: Connector supplied without pin contact | | | | | | | | |
| B: Connector supplied without socket contact | | | | | | | | |
| Orientation | | | | | | | | |
| N, A, B, C, D - See page 41; Orientations B & C not developed for shell size number 8 | | | | | | | | |
| Specifications | | | | | | | | |
| None: Supplied with contact | | | | | | | | |
| 034: As per JN1003 Standard - B type plating only, 500 hours salt spray | | | | | | | | |
| 046: PC Tail contact with tinned plating | | | | | | | | |
| 251: Connector provided with #8 power contacts instead of #8 triax contacts | | | | | | | | |
| 022: Fuel tank - Please consult us | | | | | | | | |

8ST Series

VG96912 & JN1003



Ordering information

JN1003 part numbers

| | | | | | | | | |
|--|--------|---|----|---|----|---|---|---|
| Basic series | JN1003 | B | 12 | - | 35 | P | N | 1 |
| Shell style | | | | | | | | |
| A: Jam nut receptacle | | | | | | | | |
| B: Square flange receptacle | | | | | | | | |
| FG: Plug with RFI/EMI shielding | | | | | | | | |
| H: Square flange receptacle, not accepting backshell | | | | | | | | |
| Shell size | | | | | | | | |
| 08; 10; 12; 14; 16; 18; 20; 22; 24 | | | | | | | | |
| Plating | | | | | | | | |
| --: Olive green cadmium | | | | | | | | |
| Contact layout | | | | | | | | |
| See pages 8 to 13 | | | | | | | | |
| Contact type | | | | | | | | |
| P: Pin | | | | | | | | |
| S: Socket | | | | | | | | |
| Orientation | | | | | | | | |
| N, A, B, C, D - See page 41; Orientations B & C not developed for shell size number 8 | | | | | | | | |
| Specification | | | | | | | | |
| None: Delivered without contact - crimp version | | | | | | | | |
| 1: Delivered with crimp contacts | | | | | | | | |
| 101: Short PC tail contacts (#22D, #20, #16 male & female for receptacle type A and B) | | | | | | | | |
| 102: Medium PC tail contacts (#22D male for receptacle B ; #22D and #20 female for receptacle type A) | | | | | | | | |
| 103: Long PC tail contacts (#22D male & female for receptacle type B) | | | | | | | | |
| 104: Short PC tail contacts HE308 type (#22D male & female for receptacle type B) | | | | | | | | |

VG96912 part numbers

| | | | | | | | |
|---|---------|---|----|---|----|---|---|
| Basic series | VG96912 | D | 10 | - | 35 | P | N |
| Shell type | | | | | | | |
| A: Square flange receptacle | | | | | | | |
| AA: Square flange receptacle, rear mounting | | | | | | | |
| B: Jam nut receptacle | | | | | | | |
| D: Plug with RFI/EMI shielding | | | | | | | |
| E: Plug without RFI/EMI shielding | | | | | | | |
| Shell size | | | | | | | |
| 08; 10; 12; 14; 16; 18; 20; 22; 24 | | | | | | | |
| Plating | | | | | | | |
| --: Olive green cadmium | | | | | | | |
| Contact layout | | | | | | | |
| See pages 8 to 13 | | | | | | | |
| Contact type | | | | | | | |
| P: Pin | | | | | | | |
| S: Socket | | | | | | | |
| Orientation | | | | | | | |
| N, A, B, C, D - See page 41; Orientations B & C not developed for shell size number 8 | | | | | | | |

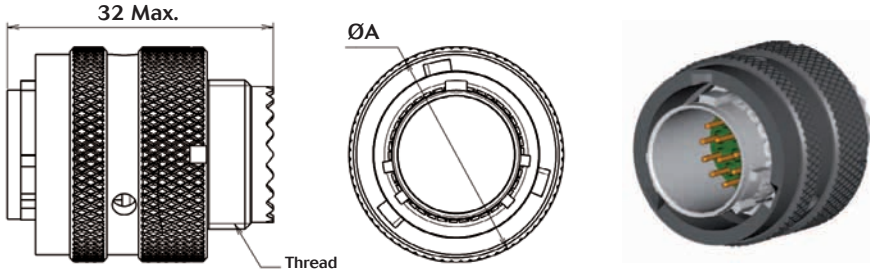
8ST Series

VG96912 & JN1003



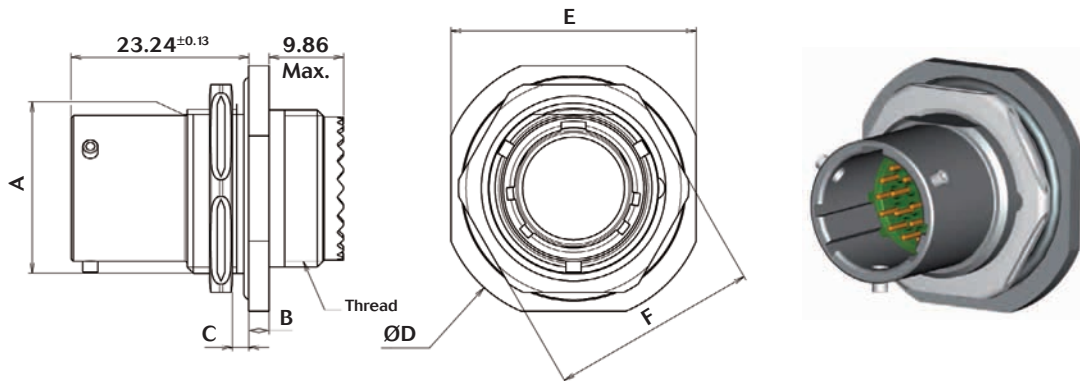
Dimensions

Types 5 & 6 - Plug



| Shell size | A | Thread |
|------------|----|--------------------|
| 08 | 19 | 7/16-28 UNEF 2A |
| 10 | 22 | 9/16-24 UNEF 2A |
| 12 | 26 | 11/16-24 UNEF 2A |
| 14 | 29 | 13/16-20 UNEF 2A |
| 16 | 33 | 15/16-20 UNEF 2A |
| 18 | 36 | 1" 1/16-18 UNEF 2A |
| 20 | 39 | 1" 3/16-18 UNEF 2A |
| 22 | 44 | 1" 5/16-18 UNEF 2A |
| 24 | 46 | 1" 7/16-18 UNEF 2A |

Type 7 - Jam nut receptacle



| Shell size | A ± 0.2 | B | C | Thread | ØD | E ± 0.3 | F ± 0.4 | Tightening torque for JN1003 (mN) |
|------------|-------------|-------------|--------------------|--------------------|------|-------------|-------------|-----------------------------------|
| 08 | 13.46 | 2.43 / 3.09 | 1.6 / 3.2 | 9/16-24 UNEF 2A | 27.3 | 23.8 | 19.1 | 4 |
| 10 | 16.64 | | | 11/16-24 UNEF 2A | 30.5 | 27.0 | 22.2 | 6 |
| 12 | 20.78 | | | 13/16-20 UNEF 2A | 35.3 | 31.8 | 27.0 | 9 |
| 14 | 23.93 | | | 15/16-20 UNEF 2A | 38.4 | 34.9 | 30.2 | 10 |
| 16 | 27.08 | 3.23 / 3.89 | | 1" 1/16-18 UNEF 2A | 41.6 | 38.1 | 33.3 | 13 |
| 18 | 30.25 | | | 1" 3/16-18 UNEF 2A | 44.8 | 41.3 | 36.5 | 20 |
| 20 | 33.43 | | | 1" 5/16-18 UNEF 2A | 49.6 | 46.0 | 39.7 | 23 |
| 22 | 36.60 | | | 1" 7/16-18 UNEF 2A | 52.7 | 49.2 | 42.7 | 25 |
| 24 | 39.78 | | 1" 7/16-18 UNEF 2A | 55.9 | 52.4 | 46.0 | 26 | |

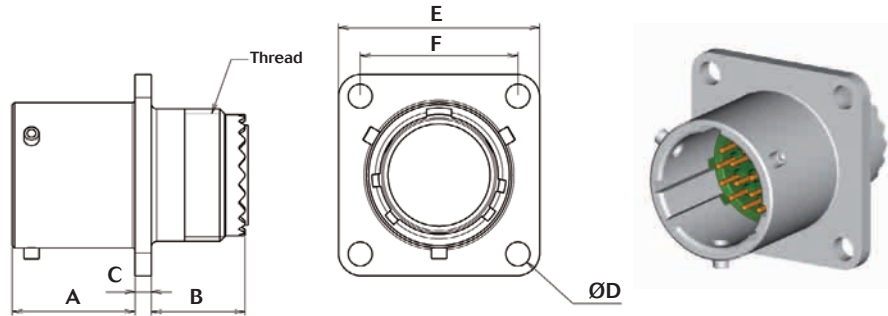
Note: All dimensions are in millimeters (mm)

8ST Series

VG96912 & JN1003

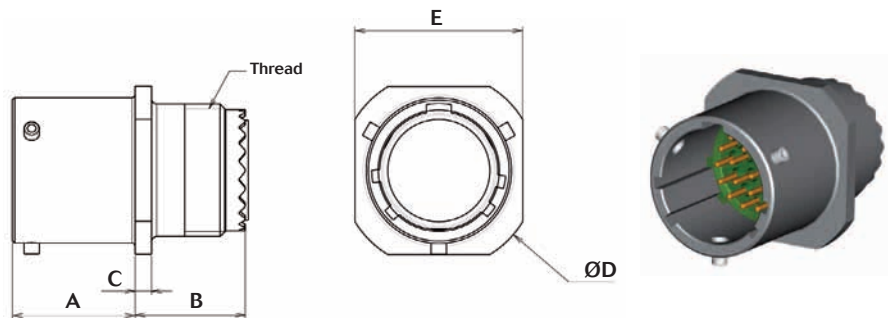


Type 0 - Square flange receptacle



| Shell size | A ± 0.2 | B Min. | C | Thread | ØD ± 0.13 | E ± 0.4 | F ± 0.1 |
|------------|-------------|--------|-------------|--------------------|---------------|-------------|-------------|
| 08 | 16.05 | 11.8 | 2.16 / 2.42 | 7/16-28 UNEF 2A | 3.05 | 20.6 | 15.1 |
| 10 | | | | 9/16-24 UNEF 2A | | 23.8 | 18.3 |
| 12 | | | | 11/16-24 UNEF 2A | | 26.2 | 20.6 |
| 14 | | | | 13/16-20 UNEF 2A | | 28.6 | 23.0 |
| 16 | | | | 15/16-20 UNEF 2A | | 31.0 | 24.6 |
| 18 | | | | 1" 1/16-18 UNEF 2A | | 33.3 | 27.0 |
| 20 | 15.29 | 11.8 | 2.92 / 3.18 | 1" 3/16-18 UNEF 2A | 3.73 | 36.5 | 29.4 |
| 22 | | | | 1" 5/16-18 UNEF 2A | | 39.7 | 31.8 |
| 24 | | | | 1" 7/16-18 UNEF 2A | | 42.9 | 34.9 |

Type 1 - In line receptacle



| Shell size | A ± 0.2 | B Min. | C | Thread | ØD ± 0.1 | E ± 0.4 |
|------------|-------------|--------|-------------|--------------------|--------------|-------------|
| 08 | 16.05 | 11.8 | 2.16 / 2.42 | 7/16-28 UNEF 2A | 7.45 | 14.2 |
| 10 | | | | 9/16-24 UNEF 2A | 10.7 | 18.5 |
| 12 | | | | 11/16-24 UNEF 2A | 13.6 | 21.8 |
| 14 | | | | 13/16-20 UNEF 2A | 16.75 | 25.2 |
| 16 | | | | 15/16-20 UNEF 2A | 19.95 | 27.4 |
| 18 | | | | 1" 1/16-18 UNEF 2A | 22.2 | 31.0 |
| 20 | 15.29 | 11.8 | 2.92 / 3.18 | 1" 3/16-18 UNEF 2A | 31.7 | 34.2 |
| 22 | | | | 1" 5/16-18 UNEF 2A | | 37.6 |
| 24 | | | | 1" 7/16-18 UNEF 2A | | 41.6 |

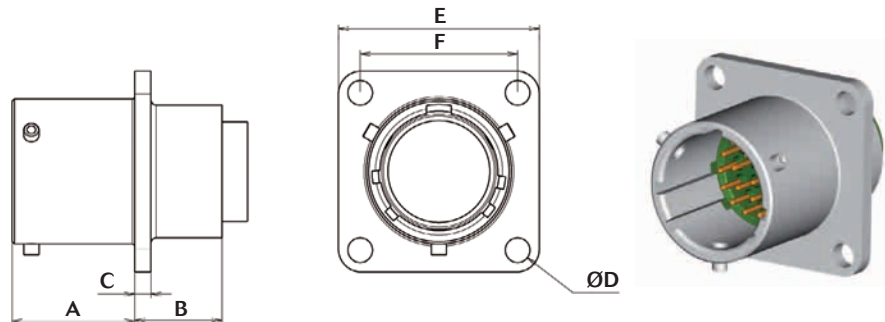
Note: All dimensions are in millimeters (mm)

8ST Series

VG96912 & JN1003

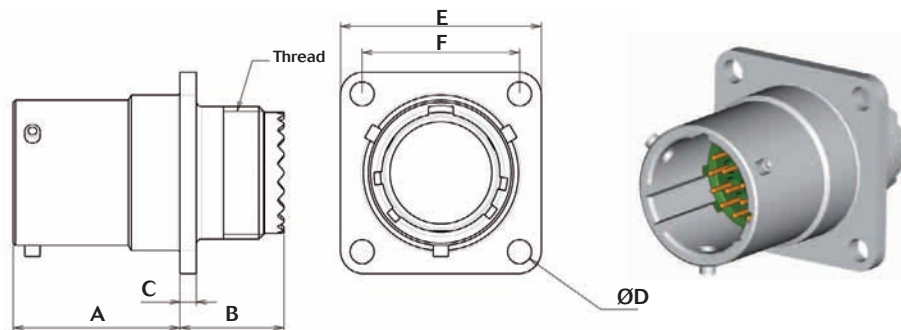


Type 2 - Square flange receptacle (not accepting backshell)



| Shell size | A ± 0.2 | B Min. | C | $\text{ØD} \pm 0.13$ | E ± 0.4 | F ± 0.1 |
|------------|-------------|--------|-------------|----------------------|-------------|-------------|
| 08 | 16.05 | 11.2 | 2.16 / 2.42 | 3.05 | 20.6 | 15.1 |
| 10 | | | | | 23.8 | 18.3 |
| 12 | | | | | 26.2 | 20.6 |
| 14 | | | | | 28.6 | 23.0 |
| 16 | | | | | 31.0 | 24.6 |
| 18 | | | | | 33.3 | 27.0 |
| 20 | 15.29 | 12.0 | 2.92 / 3.18 | 3.73 | 36.5 | 29.4 |
| 22 | | | | | 39.7 | 31.8 |
| 24 | | | | | 42.9 | 34.9 |

Type 3 - Square flange receptacle (rear mounting)



| Shell size | A ± 0.2 | B Min. | C | Thread | $\text{ØD} \pm 0.13$ | E ± 0.4 | F ± 0.1 |
|------------|-------------|--------|-------------------|-------------------|----------------------|-------------|-------------|
| 08 | 21.84 | 13.5 | 2.16 / 2.42 | 7/16-28 UNEF 2A | 3.05 | 20.6 | 15.1 |
| 10 | | | | 9/16-24 UNEF 2A | | 23.8 | 18.3 |
| 12 | | | | 11/16-24 UNEF 2A | | 26.2 | 20.6 |
| 14 | | | | 13/16-20 UNEF 2A | | 28.6 | 23.0 |
| 16 | | | | 15/16-20 UNEF 2A | | 31.0 | 24.6 |
| 18 | | | | 1"1/16-18 UNEF 2A | | 33.3 | 27.0 |
| 20 | | | | 1"3/16-18 UNEF 2A | | 36.5 | 29.4 |
| 22 | | | | 1"5/16-18 UNEF 2A | | 39.7 | 31.8 |
| 24 | 25.4 | 12.3 | 1"7/16-18 UNEF 2A | 3.73 | 42.9 | 34.9 | |

Note: All dimensions are in millimeters (mm)

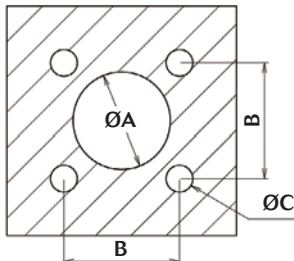
8ST Series

VG96912 & JN1003

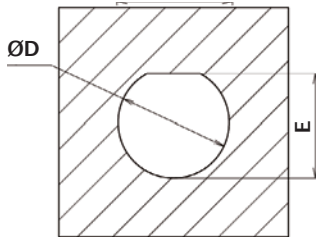


Panel cut-out

Types 0, 2 & 3



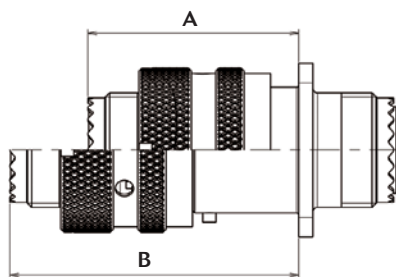
Type 7



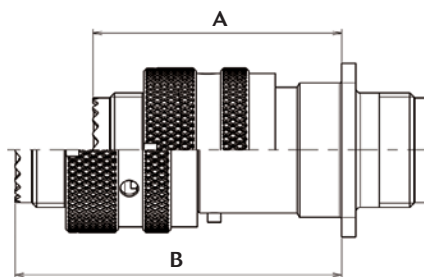
| Shell size | Types 0, 2 & 3 | | | Type 7 | | |
|------------|---------------------|----------------------|------|--------------------|--------------------|-------------------|
| | ØA $^{+0.25}_{-0}$ | | B | ØC $^{+0.25}_{-0}$ | ØD $^{+0.25}_{-0}$ | E $^{+0.25}_{-0}$ |
| | Back panel mounting | Front panel mounting | | | | |
| 08 | 14 | 12.7 | 15.1 | 3.5 | 14.5 | 13.6 |
| 10 | 17 | 16 | 18.3 | | 17.7 | 16.8 |
| 12 | 22 | 19 | 20.6 | | 22.7 | 20.9 |
| 14 | 25 | 22.2 | 23.0 | | 25.7 | 24.1 |
| 16 | 28 | 25.5 | 24.6 | | 28.8 | 27.2 |
| 18 | 31 | 28.5 | 27.0 | | 32.0 | 30.4 |
| 20 | 34.5 | 31.7 | 29.4 | | 35.1 | 33.6 |
| 22 | 37.5 | 35 | 31.8 | | 38.4 | 36.8 |
| 24 | 41 | 38 | 34.9 | 4 | 41.5 | 39.9 |

Mated/unmated dimensions

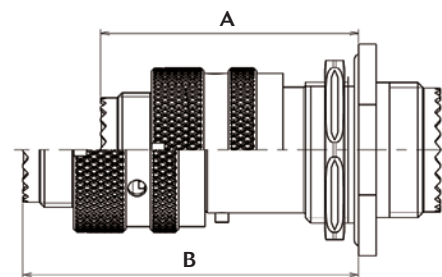
Types 8ST5 & 8ST6
with types 8ST0/8ST1/8ST2



Types 8ST5 & 8ST6
with type 8ST3



Types 8ST5 & 8ST6
with type 8ST7



| Shell size | A Max. | B Max. | C Max. | D Max. | E Max. | F Max. |
|------------|--------|--------|--------|--------|--------|--------|
| 08 | 31.93 | 46.99 | 37.72 | 52.78 | 39.24 | 54.30 |
| 10 | | | | | | |
| 12 | | | | | | |
| 14 | | | | | | |
| 16 | | | | | | |
| 18 | 31.17 | 46.23 | 41.28 | 56.34 | | |
| 20 | | | | | | |
| 22 | | | | | | |
| 24 | | | | | | |

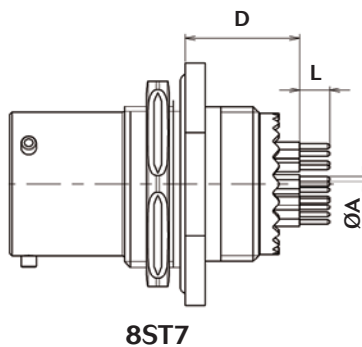
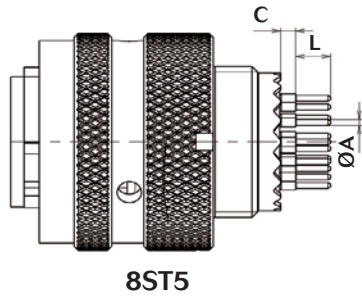
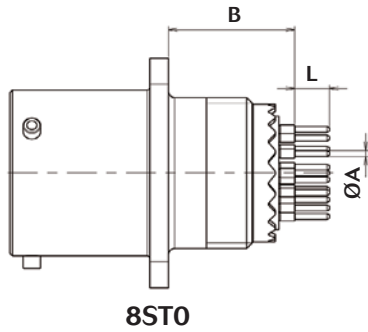
Note: All dimensions are in millimeters (mm)

8ST Series

VG96912 & JN1003



Receptacle with straight PC tail contacts



| | Contact style | | | Shell type | |
|------------------|------------------|-------|--------|-------------------------------------|-----------------------------------|
| | Size | Type | Length | 8ST0/8ST5 | 8ST7 |
| ØA Max. | #22D / #20 | P / S | L / C | 0.7 | - |
| | | P / S | C | - | 0.66 |
| | #22D | P | M | 0.5 | 0.66 |
| | #20 | S | M | - | 0.66 |
| | #16 | P | L | 1.66 | - |
| | #16 | P / S | C | 1.15 | 1.15 |
| L | #12 | P / S | C | 2.06 | - |
| | #22D / #20 | P / S | L | 8.5 ^{+0.2} _{-0.2} | - |
| | | P | L | 5.3 ^{±0.1} | - |
| | #22D | P / S | C | 4 ⁺⁰ _{-0.2} | - |
| | #20 / #16 / #12 | P / S | C | 5 ^{±0.1} | - |
| | #22D | P | M | 6 ^{±0.1} | 6.5 ⁺⁰ _{-0.2} |
| #22D / #20 / #16 | P / S | C | - | 4 ^{±0.1} | |
| B | #22D | P / S | L / C | 14.07 / 15.06 | |
| | | P | M | 14.24 / 15.23 | |
| | #20 | P / S | L | 14.07 / 15.06 | |
| | | | C | 14.24 / 15.23 | |
| | #16 | P | L | 18.62 / 19.61 | |
| | #16 / #12 | P / S | C | 14.24 / 15.23 | |
| C | #22D | P / S | L / C | 1.43 / 2.23 | |
| | | P | M | 1.60 / 2.40 | |
| | #20 | P / S | L | 1.43 / 2.23 | |
| | | | C | 1.60 / 2.40 | |
| | #16 | P | L | 5.98 / 6.78 | |
| | #16 / #12 | P / S | C | 1.60 / 2.40 | |
| D | #22D | P | M | 13.86 / 14.86 | |
| | #20 | S | M | 13.86 / 14.86 | |
| | #22D / #20 / #16 | P / S | C | 14.79 / 15.79 | |

Note: All dimensions are in millimeters (mm)

OST Series



8ST Series

Contacts & Tooling

| | | |
|---|--|----|
| ■ | Contacts: | |
| | Straight PC tail contacts | 28 |
| | Crimp contacts | 29 |
| | Coaxial contacts #12 | 30 |
| | Solder cup | 30 |
| | Quadrax #8 contacts | 30 |
| | Wire wrap contacts | 31 |
| | Thermocouple contacts | 31 |
| | Dummy contacts | 32 |
| | Filler plugs | 32 |
| ■ | Wiring instructions | 33 |
| ■ | Tooling: | |
| | Crimping tools | 34 |
| | Insertion & extraction tools..... | 35 |
| | Backshell tightening tools | 35 |
| | Tightening support..... | 35 |
| | Slackening tools | 35 |
| | Tightening of fixing nuts, receptacle type 7 | 35 |

8ST Series

VG96912 & JN1003



Straight PC tail contacts









| Shell type | Contact length | Contact size | Contact type | SOURIAU Part Number (no color code) | Profile | |
|--------------|----------------|--------------|--------------|-------------------------------------|-----------|--|
| 8ST0 8ST5 | L | #22D | P | 8599-0720 | | |
| | | | S | 8599-0721 | | |
| | | #20 | P | 8599-0771 | | |
| | | | S | 8599-0772 | | |
| | | #16 | P | 8599-7496A | | |
| | | C | #22D | P | 8599-0730 | |
| | S | | | 8599-0731 | | |
| | #20 | | P | 8599-0724 | | |
| | | | S | 8599-0725 | | |
| | #16 | | P | 8599-0726 | | |
| | | | S | 8599-0727 | | |
| | #12 | | P | 8599-7929 | | |
| | | | S | 8599-7932 | | |
| | M | #22D | P | 8599-8028 | | |
| | 8ST7 | C | #22D | P | 8599-0779 | |
| | | | | S | 8599-0788 | |
| | | | #20 | P | 8599-0780 | |
| | | | | S | 8599-0789 | |
| #16 | | | P | 8599-7711 | | |
| | | | S | 8599-7710 | | |
| M | | #22D | P | 8599-0728 | | |
| | | #20 | S | 8599-0786 | | |

8ST Series

VG96912 & JN1003



Crimp contacts

| Contact size | Contact type | SOURIAU P/N (no color code) | QPL Part Number | Profile and color code | |
|--------------|--------------|-----------------------------|-----------------|--|-------------------------|
| #22D | P | 8599-0702 JJ | M39029/58-360 |  | Black / Blue / Orange |
| | S | 8599-0706 900 | M39029/56-348 |  | Grey / Yellow / Orange |
| #20 | P | 8599-0703 SA | M39029/58-363 |  | Orange / Blue / Orange |
| | S | 8599-0707 900 | M39029/56-351 |  | Brown / Green / Orange |
| #16 | P | 8599-0704 MJ | M39029/58-364 |  | Yellow / Blue / Orange |
| | S | 8599-0708 900 | M39029/56-352 |  | Red / Green / Orange |
| #12 | P | 8599-0705 MJ | M39029/58-365 |  | Green / Blue / Orange |
| | S | 8599-0709 900 | M39029/56-353 |  | Orange / Green / Orange |
| #8 Power | P | 8599-7560 | - | - | - |
| | S | 8599-7561 | - | - | - |
| #4 Power | P | 8599-7534 | - | - | - |
| | S | 8599-7535 | - | - | - |

8ST Series

VG96912 & JN1003



Coaxial contacts #12

| Designation | Part number |
|-------------------------------|-------------|
| Coaxial socket solder #12 | THA1-0151A |
| Coaxial pin solder #12 | THA1-0152A |
| Coaxial pin crimp contact #12 | THA1-0155A |
| Coaxial crimp contact #12 | THA1-0156A |

Solder cup

| Contact size | Contact type | Part number |
|--------------|--------------|----------------|
| #22D | Pin | 8599-0750 900 |
| #20 | Pin | 8599-0077A 900 |
| #16 | Pin | 8599-7482A 900 |
| #12 | Socket | 8599-7485A 900 |

For other contacts type please consult us.

Quadrax #8 contacts




| Contact type | Version | Souriau Part number | Cross Norm | T° | Impedance | Sealing | Release |
|--------------|-----------|---------------------|------------|-------|-----------|---------|---------|
| Pin | PCB mount | ETH1-1237A | - | 125°C | 100Ω | Sealed | Rear |
| | | ETH1-1501A | - | | 150Ω | | |
| | Crimp | ETH1-1345A | EN3155-074 | 200°C | 100Ω | | |
| | | ETH1-1503A | - | | 150Ω | | |
| Socket | PCB mount | ETH1-1238A | - | 125°C | 100Ω | | |
| | | ETH1-1502A | - | | 150Ω | | |
| | Crimp | ETH1-1346A | EN3155-075 | 200°C | 100Ω | | |
| | | ETH1-1504A | - | | 150Ω | | |

8ST Series

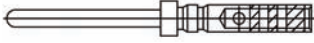






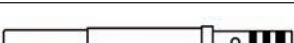
VG96912 & JN1003



Wire wrap contacts

| Contact size | Contact type | Part number | Contact Ø (mm) | Profile |  (mm) |
|--------------|--------------|---------------|----------------|--|--|
| #22D | Pin | 8599-0790 JJ | 0.76 |  | 0.86 |
| #20 | Pin | 8599-0791 900 | 1 |  | 0.86 |

Thermocouple contacts

| Contact size | Contact type | Souriau part number (without color code) | MIL-DTL-38999 contacts | | Ø Contact (mm) | Wire section | | | | Ø Over insulation (mm) | |
|--------------|--------------|--|------------------------|--|----------------|--------------|-----|-----------------|------|------------------------|------|
| | | | Part number | Profile and color code | | Awg | | mm ² | | min | max |
| | | | | | | min | max | min | max | | |
| #22D Chromel | Pin | - | M39029/87-472 |  Red / Violet / Yellow | 0.75 | 28 | 22 | 0.095 | 0.34 | 0.76 | 1.37 |
| | Socket | - | M39029/88-484 |  Yellow / Grey / Yellow | | | | | | | |
| #22D Alumel | Pin | - | M39029/87-471 |  Brown / Violet / Yellow | | | | | | | |
| | Socket | - | M39029/88-483 |  Orange / Grey / Yellow | | | | | | | |
| #20 Chromel | Pin | 8599-0749 900 | 8599-0949 900 |  Blue / Violet / Yellow | 1 | 24 | 20 | 0.21 | 0.6 | 1.02 | 2.11 |
| | Socket | 8599-0753 900 | 8599-0953 900 |  Grey / Grey / Yellow | | | | | | | |
| #20 Alumel | Pin | 8599-0761 900 | 8599-0961 900 |  Green / Violet / Yellow | | | | | | | |
| | Socket | 8599-0765 900 | 8599-0965 900 |  Violet / Grey / Yellow | | | | | | | |

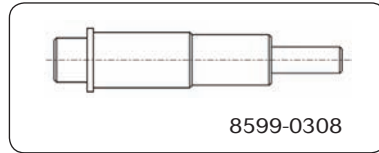
8ST Series

VG96912 & JN1003



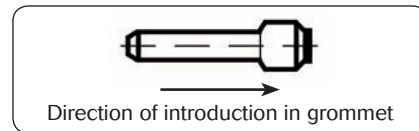
Dummy contacts

| Size | Part number |
|------|----------------|
| #16 | 8599-6A016001A |
| #8 | 8599-0308 |
| #4 | 8599-0310 |



Filler plugs

| Contact size | Filler plugs | | | |
|--------------|-------------------------|---------------------|---------------------------|--------|
| | MS Part number (Rev. N) | Souriau Part number | JN1003 (EFA)* Part number | Color |
| #22D | MS27488-22-2 | 8660-212 | JN1003 N 22 | Black |
| #20 | MS27488-20-2 | 8522-389A | JN1003 N 20 | Red |
| #16 | MS27488-16-2 | 8522-390A | JN1003 N 16 | Blue |
| #12 | MS27488-12-2 | 8522-391A | JN1003 N 12 | Yellow |



These filler plugs are installed at the rear of unwired contact to maintain connector sealing.

* Please consult us, our product will be evaluated against the final drafts/standards when available.



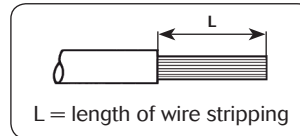
8ST Series

VG96912 & JN1003

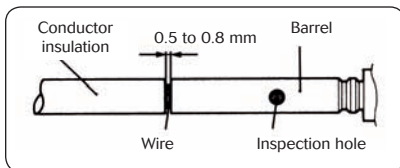
Wiring instruction

Cable preparation and wire stripping

| Contact size | #26 | #22D | #20 | #16 | #12 | #8 | #4 |
|--------------|-----|------|-----|-----|-----|----|----|
| L | 4 | | 6 | | | 12 | |



Insertion of wire in contact barrel



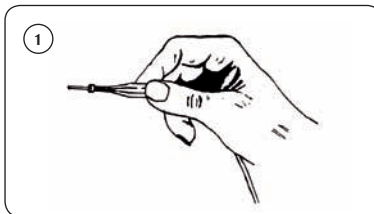
When inserting the stripped wire into the contact barrel check that no strands are left outside and that the wire is visible through the wire inspection hole in the barrel.

Important:

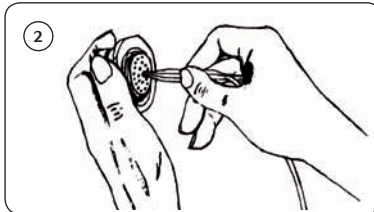
- Slide any accessories over wire strands before carrying out the following operations.
- Contacts are inserted and extracted from the rear of the connector.

Insertion of the contacts

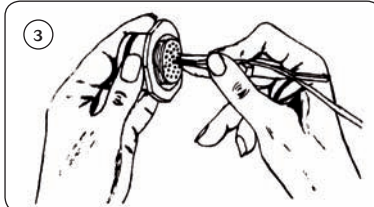
1 - Engage the crimp cable / contact assembly into the longitudinal slot of the plastic tool (coloured tip). Slide the tool down the cable until the tip of the tool abuts the contact retention shoulder.



2 - Introduce the contact into the required contact cavity in the insulator, pushing tool axially, until the contact snaps into position in clip.

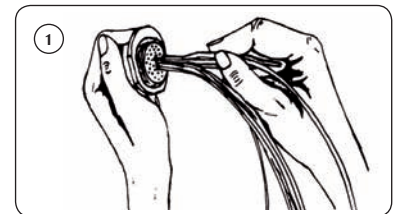


3 - Withdraw the tool (from rear). Check that contact is firmly locked by pulling wire gently. When connector is fully loaded, check the position of contact tips. They should all be in the same plane. Nota: For larger sizes of cable which are stiff enough manual insertion without tool is preferable.

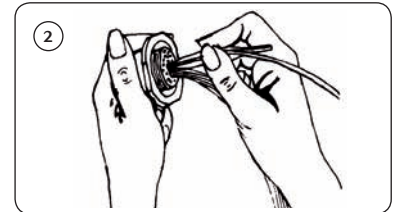


Extraction of the contacts

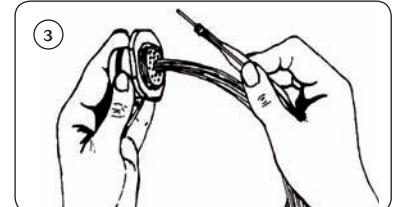
1 - Engage the appropriate cable into the longitudinal slot of the tool with the white tip towards connector.



2 - Slide the tool down towards the contact. Insert the tool in the insulator until it abuts the contact shoulder.



3 - Holding the tool-contact and cable assembly together, remove them simultaneously.



8ST Series

VG96912 & JN1003



Tooling

Crimping tools

| Contact size | Contact type | Plier M22520/1-01 | | Plier M22520/2-01 (Souriau 8476-01) | | Plier M300BT | Plier * M22520/23-01 | |
|--------------|--------------|-------------------------|---------|-------------------------------------|---------|---------------------|----------------------|---------------------|
| | | Turret Part number Norm | Souriau | Locator Part number Norm | Souriau | Locator Part number | Turret Part number | Locator Part number |
| #22D | Pin | - | - | M22520/2-09 | 8476-09 | - | - | - |
| | Socket | - | - | M22520/2-07 | 8476-07 | - | - | - |
| #20 | Pin | M22520/1-04 | 8365-04 | M22520/2-10 | 8476-10 | - | - | - |
| | Socket | | | | | - | - | - |
| #16 | Pin | M22520/1-04 | 8365-04 | - | - | - | - | - |
| | Socket | | | - | - | - | - | |
| #12 | Pin | M22520/1-04 | 8365-04 | - | - | - | - | - |
| | Socket | | | - | - | - | - | |
| #8 Power | Pin | - | - | - | - | SP 593 | M22520/23-02 | 8599-9601 |
| | Socket | - | - | - | - | | | |
| #4 Power | pin | - | - | - | - | - | M22520/23-04 | M22520/23-11 |
| | Socket | - | - | - | - | - | | |

| Contact size | Contact type | Plier M22520/2-01 (Souriau 8476-01) | Plier M22520/31-01 | Plier M22520/4-01 | Plier M22520/5-01 |
|---|--------------|-------------------------------------|---------------------|---------------------|-----------------------|
| | | Locator Part Number | Locator Part number | Locator Part Number | Die set Part Number |
| #12 Coaxial M39029/102-558 M39029/103-559 | Inner | - | - | - | M22520/5-03 |
| | Outer | - | - | - | |
| #12 Coaxial M39029/28-211 M39029/75-416 | Inner | M22520/2-34 | - | - | - |
| | Outer | - | M22520/31-02 | - | - |
| #16 Coaxial | Inner | M22520/2-35 | - | - | - |
| | Outer | - | - | M22520/4-02 | - |
| #8 Coaxial | Inner | M22520/2-31 | - | - | - |
| | Outer | - | - | - | M22520/5-05 closure B |
| #8 Triaxial | Inner | K709 | - | - | - |
| | Middle | - | - | - | Y631 closure B |
| | Ferrule | - | - | - | Y631 closure A |

* Pneumatic plier

Note: for the #10 contact's plier and locator, please consult us.

8ST Series

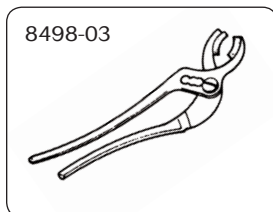
VG96912 & JN1003



Insertion & extraction tools

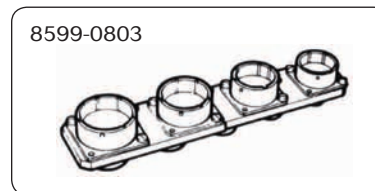
| Contact size | Material | Part number | | Color | |
|--------------|----------|--------------|---------------|-----------|------------|
| | | MIL standard | Souriau | Insertion | Extraction |
| #26 | Plastic | - | 8599-0399 900 | Black | White |
| #22D | Plastic | M81969/14-01 | - | Green | White |
| #20 | Plastic | M81969/14-10 | - | Red | Orange |
| #16 | Plastic | M81969/14-03 | - | Blue | White |
| #12 | Plastic | M81969/14-04 | - | Yellow | White |
| #10 | Plastic | M81969/14-05 | - | Grey | - |
| #8 | Plastic | M81969/14-12 | - | - | Green |
| | Metalic | - | 8660-197 | - | - |
| #4 | Plastic | M81969/14-07 | - | - | Blue |
| | Metalic | - | 8533-8175 | - | - |

Backshell tightening tools



Backshell tightening pliers,
part number: **8498-03**
Square jaws (order 2 jaws),
part number: **8500-1015**

Tightening support

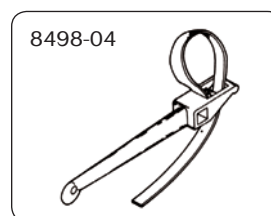


Part number: **8599-0803**
This tool is made up of dummy receptacles housings of all 9 sizes for all key polarisation, and locates free connectors during wiring and fitting of rear accessories.

Tightening of rear accessories:

| Shell size | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 |
|---------------------|------|----|----|----|----|----|------|----|----|
| Max torque in m/daN | 0.62 | | | | | | 1.24 | | |

Slackening tools



Strap clamp,
part number: **8498-04**
Spare strap,
part number: **8498-103**

Tightening of fixing nuts, receptacle type 7

| Shell size | 08 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|
| Nut dimension across flats | 19.1 | 22.2 | 27.0 | 30.2 | 33.3 | 36.5 | 39.7 | 42.7 | 46.0 |
| Max tightening torque on nut (mN) | 4 | 6 | 9 | 10 | 13 | 20 | 23 | 25 | 26 |

OST Series



8ST Series

Common Section

| | |
|---------------------------------|----|
| ■ Backshells | 38 |
| ■ Protective caps | 39 |
| ■ Dummy receptacles | 40 |
| ■ Panel gasket | 40 |
| ■ Reductors | 41 |
| ■ Boots | 41 |
| ■ Orientations | 41 |
| ■ Coordinates information | 42 |

8ST Series

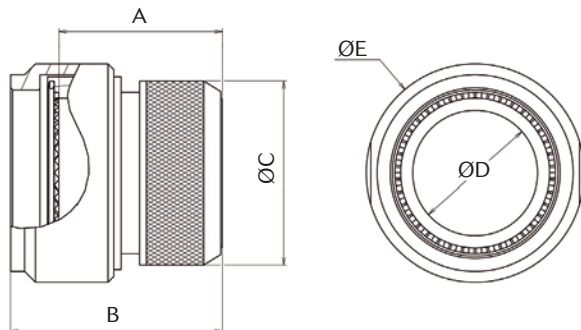
VG96912 & JN1003



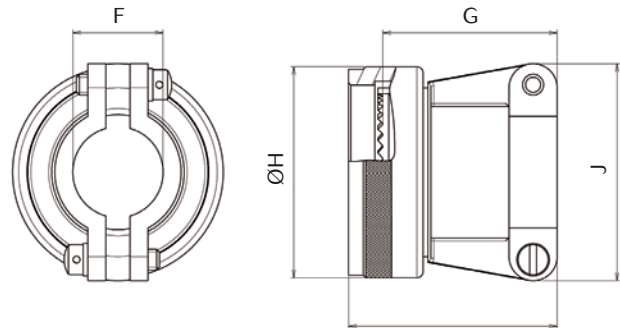
Backshells

Aluminum backshells

Backshell for shielded cables and heatshrink boot



Backshell with cable clamp



Dimensions

| Shell size | A Max | B Max | ØC Max | ØD Max | ØE ±0.2 | F Min | F Max | G Max | ØH Max | J Max |
|------------|-------|-------|--------|--------|---------|-------|-------|-------|--------|-------|
| 08 | 24.8 | 34 | 14 | 6.4 | 19 | 1.58 | 3.18 | 14.7 | 16 | 20 |
| 10 | 25.8 | 35 | 16 | 7.2 | 22 | 1.58 | 4.78 | 15.5 | 19 | 22 |
| 12 | | | 18 | 9.7 | 25 | 3.18 | 6.35 | 17.1 | 22 | 25 |
| 14 | 26.8 | 36 | 22 | 12.7 | 28 | 6.35 | 9.53 | 23.3 | 25 | 28 |
| 16 | | | 25 | 15.7 | 30 | 6.35 | 12.70 | 26.8 | 29 | 30 |
| 18 | | | 28 | 18.7 | 34 | 9.35 | 15.88 | | 31 | 36 |
| 20 | | | 32 | 21.7 | 38 | 12.70 | 19.05 | | 35 | 36 |
| 22 | | | 34 | 23.7 | 43 | 15.88 | 22.23 | | 38 | 41 |
| 24 | | | 38 | 27.7 | 45 | 15.88 | 25.40 | | 41 | 43 |

Ordering information

Basic series **8LST** **101** **G** **52**

Size code:

101, 102, 103, 104, 105, 106, 107, 108, 109

| Size code | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| = Shell size | 08 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |

Plating:

F: Nickel

G: Olive green cadmium

Type:

52: Backshell with cable clamp

57: Backshell for shielded cables and heatshrink boot

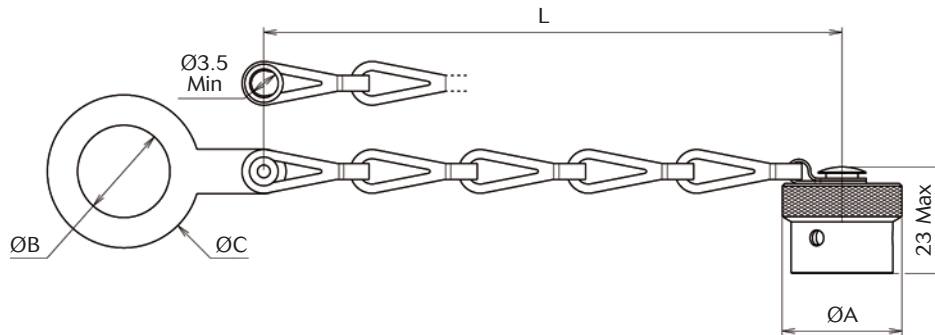
8ST Series

VG96912 & JN1003



Protective caps

Metallic protective caps for receptacle



Dimensions

| Shell size | ØA Max | ØB Min | ØC Max | L |
|------------|--------|--------|--------|-----|
| 08 | 19 | 14.6 | 23.5 | 84 |
| 10 | 22 | 17.8 | 26.77 | |
| 12 | 26 | 22.5 | 31.55 | |
| 14 | 29 | 25.7 | 36.83 | 100 |
| 16 | 33 | 28.9 | 40.31 | |
| 18 | 36 | 32.1 | 43.18 | |
| 20 | 39 | 35.2 | 46.36 | |
| 22 | 44 | 38.4 | 49.19 | 116 |
| 24 | 46 | 41.6 | 52.71 | |

Ordering information

Basic series 8500- 02 -44D
 8500-: Cap for receptacle

Size code:
 02, 03, 04, 05, 27, 06, 07, 08, 09

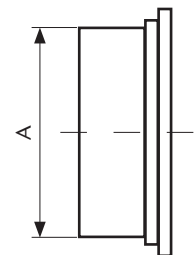
| Size code | 02 | 03 | 04 | 05 | 27 | 06 | 07 | 08 | 09 |
|------------------|----|----|----|----|----|----|----|----|----|
| = Shell size 8ST | 08 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |

Plating & fixing type:

- J: Olive green cadmium plating with metallic chain and ring
- D: Olive green cadmium plating with metallic chain and eyelet
- 44D: Nickel plating with metallic chain and eyelet

Plastic protective caps

| Shell size | ØA | | Part numbers | |
|------------|--------------------|--------------|--------------------|--------------|
| | Cap for receptacle | Cap for plug | Cap for receptacle | Cap for plug |
| 08 | 15.40 | 16.65 | 8500 5585 A | 70 777 |
| 10 | 18.30 | 19.72 | 8500 5586 A | 70 205 |
| 12 | 22.65 | - | 8500 5587 A | MS90376 16Y |
| 14 | 25.80 | 30.80 | 8500 5588 A | 8500 5600 |
| 16 | 29.20 | 33.90 | 8500 5589 A | 8500 5601 |
| 18 | 32.40 | 37.00 | 8500 5590 A | 8500 5602 |
| 20 | 35.60 | 39.00 | 8500 5591 A | 8500 5592A |
| 22 | 39.00 | 42.20 | 8500 5592 A | 8500 5593A |
| 24 | 42.20 | 44.50 | 8500 5593 A | 70 472 |



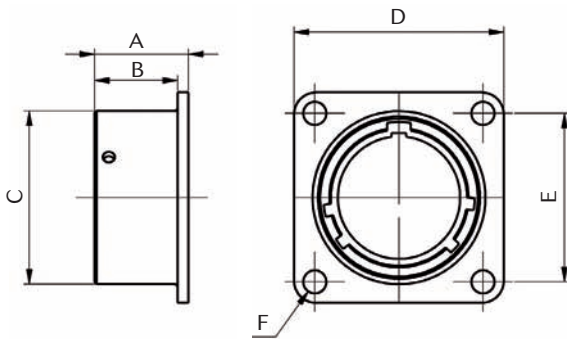
Note: All dimensions are in millimeters (mm)

8ST Series

VG96912 & JN1003



Dummy receptacles



| Shell size | Part numbers | A Max | B Max | ØC | D Max | E | ØF ±0.13 |
|------------|--------------|-------|-------|-------|-------|-------|----------|
| 08 | 8ST0-08GUR | 18.35 | 16.05 | 12.04 | 21.00 | 15.10 | 3.05 |
| 10 | 8ST0-10GUR | 18.35 | 16.05 | 15.02 | 24.20 | 18.26 | 3.05 |
| 12 | 8ST0-12GUR | 18.35 | 16.05 | 19.08 | 26.60 | 20.62 | 3.05 |
| 14 | 8ST0614GUR | 18.35 | 16.05 | 22.26 | 29.00 | 23.01 | 3.05 |
| 16 | 8ST0-16GUR | 18.35 | 16.05 | 25.43 | 31.35 | 24.61 | 3.05 |
| 18 | 8ST0-18GUR | 18.35 | 16.05 | 28.61 | 33.70 | 26.98 | 3.05 |
| 20 | 8ST0-20GUR | 18.35 | 15.29 | 31.78 | 36.90 | 29.38 | 3.05 |
| 22 | 8ST0-22GUR | 18.35 | 15.29 | 34.96 | 40.10 | 31.77 | 3.05 |
| 24 | 8ST0-24GUR | 18.35 | 15.29 | 38.13 | 43.30 | 34.92 | 3.73 |

Panel gasket

| Shell size | Part numbers | | |
|------------|------------------------------|-----------|------------------------------|
| | Gasket for receptacle type 0 | | O ring for receptacle type 7 |
| 08 | 8525-1431 | 8590-2251 | AS3582-017 |
| 10 | 8525-1432 | 8590-2252 | AS3582-019 |
| 12 | 8525-1433 | 8590-2253 | AS3582-022 |
| 14 | 8525-1434 | 8590-2254 | AS3582-024 |
| 16 | 8525-1435 | 8590-2255 | AS3582-026 |
| 18 | 8525-1436 | 8590-2256 | AS3582-028 |
| 20 | 8525-1437 | 8590-2257 | AS3582-128 |
| 22 | 8525-1438 | 8590-2258 | AS3582-130 |
| 24 | 8525-1439 | 8590-2259 | AS3582-132 |

Notes:

- 8ST0 gasket must be ordered separately
- Compliant to 8ST Series temperature range - max 200°C
- For use up to 125°C, gaskets in accordance with VG95328:
 VG95328T07A...= non conductive
 VG95328 07B...= conductive (for HF application)

8ST Series

VG96912 & JN1003



Reducers

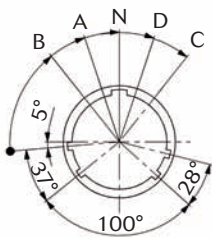
| Reductor Size | Part number | For cable | For pin contacts | For socket contacts |
|---------------|-------------|--------------------|------------------|---------------------|
| #8 Power | 8599-7645 | #10 | 8599-7580 | 8599-7581 |
| #4 Power | 8400-2352A | 10 mm ² | 8599-7534A | 8599-7535A |

Boots

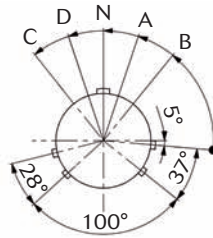
| Boot Size | Part number | Admissible wire section mm ² | | For cable |
|-----------|-------------|---|-----|---------------------------|
| #8 Power | 8599-4542 | 5 | 6.5 | 8.48 à 10 mm ² |
| | 8599-4547 | 2.5 | 4 | #10 |
| #4 Power | 8599-4594 | 6.35 | 7.5 | #4 - #5 |
| | 8599-4593 | 4 | 5.8 | #6 - #8 |

Orientations

Polarization is determined by the master keyway position. The secondary keyway positions remain fixed.



View from front face of receptacle



View from front face of plug

| Shell size | Angles (degrees) | | | | |
|------------|------------------|----|----|-----|-----|
| | N | A | B | C | D |
| 08 | 95 | 77 | - | - | 113 |
| 10 | 95 | 81 | 67 | 123 | 109 |
| 12 | 95 | 75 | 63 | 127 | 115 |
| 14 | 95 | 74 | 61 | 129 | 116 |
| 16 | 95 | 77 | 65 | 125 | 113 |
| 18 | 95 | 77 | 65 | 125 | 113 |
| 20 | 95 | 77 | 65 | 125 | 113 |
| 22 | 95 | 80 | 69 | 121 | 110 |
| 24 | 95 | 80 | 69 | 121 | 110 |



Coordinates for straight PC tail terminations Viewed from front face of male insulator

Hole sizes: 1mm min. (#22 and #20 contacts) and 1.3mm min. (#16 contact) coordinates in mm.

08

12

| Ctc | X | y |
|-----|-------|-------|
| 1 | +0.92 | +2.54 |
| 2 | +2.34 | +1.35 |
| 3 | +2.66 | -0.47 |
| 4 | +1.74 | -2.07 |
| 5 | 0.00 | -2.70 |
| 6 | -1.74 | -2.07 |

35

| Ctc | X | y |
|-----|-------|-------|
| 1 | +1.14 | +1.98 |
| 2 | +1.98 | -1.14 |
| 3 | 0.00 | -2.29 |
| 4 | +1.98 | -1.14 |
| 5 | +1.14 | +1.98 |
| 6 | 0.00 | 0.00 |

98

| Ctc | X | y |
|-----|-------|-------|
| A | +1.65 | +0.97 |
| B | 0.00 | -1.90 |
| C | -1.65 | +0.97 |

10

02

| Ctc | X | y |
|-----|------|-------|
| A | 0.00 | +2.41 |
| B | 0.00 | -2.41 |

04

| Ctc | X | y |
|-----|-------|-------|
| A | +1.65 | +1.65 |
| B | +1.65 | -1.65 |
| C | -1.65 | -1.65 |
| D | -1.65 | +1.65 |

05

| Ctc | X | y |
|-----|-------|-------|
| A | +1.65 | +1.42 |
| B | +2.86 | -1.65 |
| C | 0.00 | -3.30 |
| D | -2.86 | -1.65 |
| E | -1.65 | +1.42 |

26

| Ctc | X | y |
|-----|-------|-------|
| 1 | +1.69 | +3.79 |
| 2 | +3.09 | +2.77 |
| 3 | +3.95 | +1.28 |
| 4 | +4.13 | -0.44 |
| 5 | +3.58 | -2.10 |
| 6 | +2.40 | -3.37 |
| 7 | 0.00 | -4.13 |
| 8 | -2.40 | -3.37 |
| 9 | -3.58 | -2.10 |
| 10 | -4.13 | -0.44 |
| 11 | -3.95 | +1.28 |
| 12 | -3.09 | +2.77 |
| 13 | -1.69 | +3.79 |
| 14 | 0.00 | +3.50 |
| 15 | +1.70 | +1.76 |
| 16 | +2.55 | +0.29 |
| 17 | +1.70 | -1.18 |
| 18 | +0.85 | -2.65 |
| 19 | -0.85 | -2.65 |
| 20 | -1.70 | -1.18 |
| 21 | -2.55 | +0.29 |
| 22 | -1.70 | +1.76 |
| 23 | 0.00 | +1.76 |
| 24 | +0.85 | +0.29 |
| 25 | 0.00 | -1.18 |
| 26 | -0.85 | +0.29 |

35

| Ctc | X | y |
|-----|-------|-------|
| 1 | 0.00 | +3.71 |
| 2 | +2.16 | +3.00 |
| 3 | +3.51 | +1.14 |
| 4 | +3.51 | -1.14 |
| 5 | +2.16 | -3.00 |
| 6 | 0.00 | -3.71 |
| 7 | -2.16 | -3.00 |
| 8 | -3.51 | -1.14 |
| 9 | -3.51 | +1.14 |
| 10 | -2.16 | +3.00 |
| 11 | 0 | +1.42 |
| 12 | +1.24 | -0.89 |
| 13 | -1.24 | -0.89 |

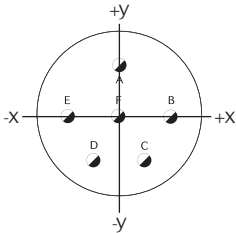
8ST Series

VG96912 & JN1003



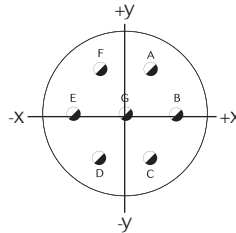
10

98



| Ctc | X | y |
|-----|-------|-------|
| A | 0.00 | +3.30 |
| B | +3.30 | 0.00 |
| C | +1.65 | -2.87 |
| D | -1.65 | -2.87 |
| E | -3.30 | 0.00 |
| F | 0.00 | 0.00 |

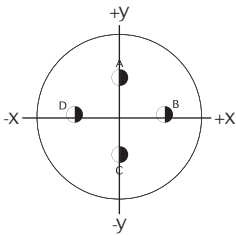
99



| Ctc | X | y |
|-----|-------|-------|
| A | +1.65 | +2.85 |
| B | +3.30 | 0.00 |
| C | +1.65 | -2.87 |
| D | -1.65 | -2.87 |
| E | -3.30 | 0.00 |
| F | -1.65 | +2.87 |
| G | 0.00 | 0.00 |

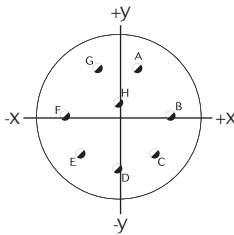
12

04



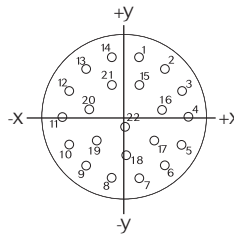
| Ctc | X | y |
|-----|-------|-------|
| A | 0.00 | +3.81 |
| B | +3.71 | +0.89 |
| C | 0.00 | -2.11 |
| D | -3.71 | +0.89 |

08



| Ctc | X | y |
|-----|-------|-------|
| A | +1.65 | +3.99 |
| B | +4.32 | 0.00 |
| C | +3.05 | -3.05 |
| D | 0.00 | -4.32 |
| E | -3.05 | -3.05 |
| F | -4.32 | 0.00 |
| G | -1.65 | +3.99 |
| H | 0.00 | +1.12 |

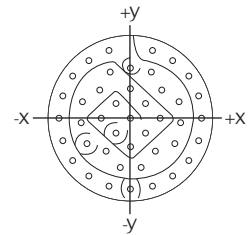
35



| Ctc | X | y |
|-----|-------|-------|
| 1 | +1.14 | +5.00 |
| 2 | +3.20 | +4.01 |
| 3 | +4.62 | +2.24 |
| 4 | +5.16 | 0.00 |
| 5 | +4.62 | -2.24 |
| 6 | +3.20 | -4.01 |
| 7 | +1.14 | -5.00 |
| 8 | -1.14 | -5.00 |
| 9 | -3.20 | -4.01 |
| 10 | -4.62 | -2.24 |
| 11 | -5.16 | 0.00 |

| Ctc | X | y |
|-----|-------|-------|
| 12 | -4.62 | +2.24 |
| 13 | -3.20 | +4.01 |
| 14 | -1.14 | +5.00 |
| 15 | +1.14 | +2.72 |
| 16 | +2.97 | +0.66 |
| 17 | +2.36 | -1.91 |
| 18 | 0.00 | -3.05 |
| 19 | -2.36 | -1.91 |
| 20 | -2.97 | +0.66 |
| 21 | -1.14 | +2.72 |
| 22 | 0.00 | -0.76 |

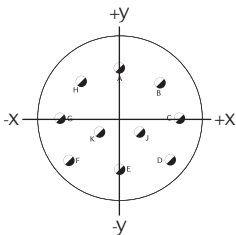
43



| Ctc | X | y |
|-----|-------|-------|
| 1 | +1.80 | +5.54 |
| 2 | -1.80 | +5.54 |
| 3 | +3.42 | +4.71 |
| 4 | +4.71 | +3.42 |
| 5 | +5.54 | +1.80 |
| 6 | +5.82 | 0.00 |
| 7 | +5.54 | -1.80 |
| 8 | +4.71 | -3.42 |
| 9 | +3.42 | -4.71 |
| 10 | +1.80 | -5.54 |
| 11 | 0.00 | -5.82 |
| 12 | -1.80 | -5.54 |
| 13 | -3.42 | -4.71 |
| 14 | -4.71 | -3.42 |
| 15 | -5.54 | -1.80 |
| 16 | -5.82 | 0.00 |
| 17 | -5.54 | +1.80 |
| 18 | -4.71 | +3.42 |
| 19 | -3.42 | +4.71 |
| 20 | 0.00 | +4.12 |
| 21 | +1.68 | +3.76 |
| 22 | +2.54 | +2.28 |

| Ctc | X | y |
|-----|-------|-------|
| 23 | +3.92 | +1.27 |
| 24 | +4.10 | -0.43 |
| 25 | +3.57 | -2.06 |
| 26 | +1.99 | -2.74 |
| 27 | +0.86 | -4.03 |
| 28 | -0.86 | -4.03 |
| 29 | -1.99 | -2.74 |
| 30 | -3.57 | -2.06 |
| 31 | -4.10 | -0.43 |
| 32 | -3.92 | +1.27 |
| 33 | -2.54 | +2.28 |
| 34 | -1.68 | +3.76 |
| 35 | 0.00 | +2.42 |
| 36 | +1.21 | +1.21 |
| 37 | +2.42 | 0.00 |
| 38 | +1.21 | -1.21 |
| 39 | 0.00 | -2.42 |
| 40 | -1.21 | -1.21 |
| 41 | -2.42 | 0.00 |
| 42 | -1.21 | +1.21 |
| 43 | 0.00 | 0.00 |

98



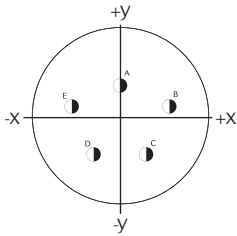
| Ctc | X | y |
|-----|-------|-------|
| A | 0.00 | +4.95 |
| B | +3.18 | +3.81 |
| C | +4.90 | +0.76 |
| D | +4.17 | -2.67 |
| E | 0.00 | -3.43 |

| Ctc | X | y |
|-----|-------|-------|
| F | -4.17 | -2.67 |
| G | -4.90 | +0.76 |
| H | -3.18 | +3.81 |
| J | +1.65 | -0.38 |
| K | -1.65 | -0.38 |



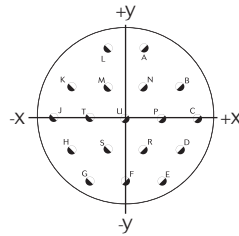
14

05



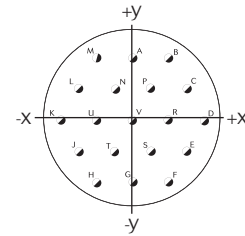
| Ctc | X | y |
|-----|-------|-------|
| A | 0 | +2.54 |
| B | +4.42 | +0.61 |
| C | +2.39 | +3.76 |
| D | -2.39 | -3.76 |
| E | -4.42 | +0.61 |

18



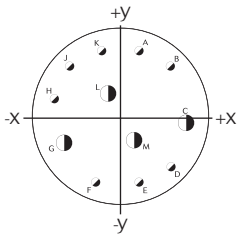
| Ctc | X | y | Ctc | X | y |
|-----|-------|-------|-----|-------|-------|
| A | +1.65 | +6.40 | K | -4.95 | +2.87 |
| B | +4.95 | +2.87 | L | -1.65 | +6.40 |
| C | +6.60 | 0.00 | M | -1.65 | +2.87 |
| D | +4.95 | -2.87 | N | +1.65 | +2.87 |
| E | +3.30 | -5.72 | P | +3.30 | 0.00 |
| F | 0.00 | -5.72 | R | +1.65 | -2.87 |
| G | -3.30 | -5.72 | S | -1.65 | -2.87 |
| H | -4.95 | -2.87 | T | -3.30 | 0.00 |
| J | -6.60 | 0.00 | U | 0.00 | 0.00 |

19



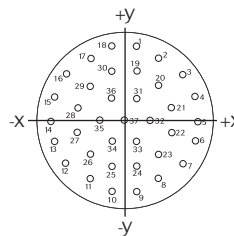
| Ctc | X | y | Ctc | X | y |
|-----|-------|-------|-----|-------|-------|
| A | 0.00 | +5.72 | L | -4.95 | +2.87 |
| B | +3.30 | +5.72 | M | -3.30 | +5.72 |
| C | +4.95 | +2.87 | N | -1.65 | +2.87 |
| D | +6.60 | 0.00 | P | +1.65 | +2.87 |
| E | +4.95 | -2.87 | R | +3.30 | 0.00 |
| F | +3.30 | -5.72 | S | +1.65 | -2.87 |
| G | 0.00 | -5.72 | T | -1.65 | -2.87 |
| H | -3.30 | -5.72 | U | -3.30 | 0.00 |
| J | -4.95 | -2.87 | V | 0.00 | 0.00 |
| K | -6.60 | 0.00 | | | |

97



| Ctc | X | y |
|-----|-------|-------|
| A | +1.65 | +5.94 |
| B | +4.52 | +4.52 |
| C | +5.84 | -0.58 |
| D | +4.52 | -4.52 |
| E | +1.65 | -5.94 |
| F | -2.26 | -5.97 |
| G | -5.26 | -2.41 |
| H | -5.94 | +1.65 |
| J | -4.52 | +4.52 |
| K | -1.65 | +5.94 |
| L | -1.19 | +2.06 |
| M | +1.19 | -2.06 |

35

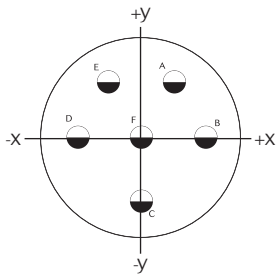


| Ctc | X | y | Ctc | X | y |
|-----|-------|-------|-----|-------|-------|
| 1 | +1.14 | +6.65 | 20 | +3.12 | +3.02 |
| 2 | +3.12 | +5.51 | 21 | +4.32 | +1.02 |
| 3 | +5.36 | +4.06 | 22 | +4.32 | -1.27 |
| 4 | +6.45 | +2.03 | 23 | +3.12 | -3.23 |
| 5 | +6.75 | -0.25 | 24 | +1.14 | -4.37 |
| 6 | +6.27 | -2.49 | 25 | -1.14 | -4.37 |
| 7 | +5.08 | -4.45 | 26 | -3.12 | -3.23 |
| 8 | +3.30 | -5.89 | 27 | -4.32 | -1.27 |
| 9 | +1.14 | -6.65 | 28 | -4.32 | +1.02 |
| 10 | -1.14 | -6.65 | 29 | -3.12 | +3.02 |
| 11 | -3.30 | -5.89 | 30 | -1.14 | +4.37 |
| 12 | -5.08 | -4.45 | 31 | +1.14 | +1.88 |
| 13 | -6.27 | -2.49 | 32 | +2.29 | -0.10 |
| 14 | -6.76 | -0.25 | 33 | +1.14 | -2.08 |
| 15 | -6.45 | +2.03 | 34 | -1.14 | -2.08 |
| 16 | -5.36 | +4.06 | 35 | -2.29 | -0.10 |
| 17 | -3.12 | +5.51 | 36 | -1.14 | +1.88 |
| 18 | -1.14 | +6.65 | 37 | 0.00 | -0.10 |
| 19 | +1.14 | +4.37 | | | |



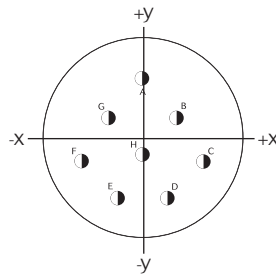
16

06



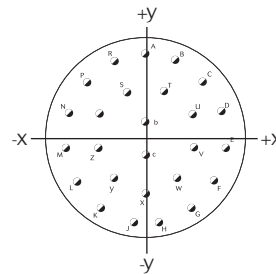
| Ctc | X | y |
|-----|-------|-------|
| A | +3.07 | +5.31 |
| B | +6.12 | 0.00 |
| C | 0.00 | -6.12 |
| D | -6.12 | 0.00 |
| E | -3.07 | +5.31 |
| F | 0.00 | 0.00 |

08



| Ctc | X | y |
|-----|-------|-------|
| A | 0.00 | +5.99 |
| B | +3.25 | +2.18 |
| C | +5.84 | -1.98 |
| D | +2.39 | -5.49 |
| E | -2.39 | -5.49 |
| F | -5.84 | -1.98 |
| G | -3.25 | +2.18 |
| H | 0.00 | -1.32 |

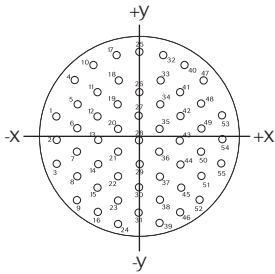
26



| Ctc | X | y |
|-----|-------|-------|
| A | 0.00 | +8.15 |
| B | +3.33 | +7.44 |
| C | +6.07 | +5.44 |
| D | +7.75 | +2.51 |
| E | +8.10 | -0.86 |
| F | +7.06 | -4.09 |
| G | +4.80 | -6.60 |
| H | +1.70 | -7.98 |

| Ctc | X | y |
|-----|-------|-------|
| J | -1.70 | -7.98 |
| K | -4.80 | -6.60 |
| L | -7.06 | -4.09 |
| M | -8.10 | -0.86 |
| N | -7.75 | +2.51 |
| P | -6.07 | +5.44 |
| R | -3.33 | +7.44 |
| S | -1.78 | +4.50 |
| T | +1.78 | +4.50 |
| U | +4.45 | +2.39 |
| V | +4.53 | -0.91 |
| W | +3.02 | -3.84 |
| X | 0.00 | -5.16 |
| Y | -3.02 | -3.84 |
| Z | -4.53 | -0.91 |
| a | -4.45 | +2.39 |
| b | 0.00 | +1.65 |
| c | 0.00 | -1.65 |

35



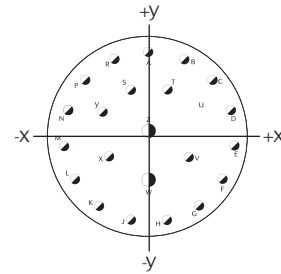
| Ctc | X | y |
|-----|-------|-------|
| 1 | -7.92 | +2.18 |
| 2 | -7.92 | -0.10 |
| 3 | -7.92 | -2.39 |
| 4 | -6.15 | +5.61 |
| 5 | -5.94 | +3.33 |
| 6 | -5.94 | +1.04 |
| 7 | -5.94 | -1.24 |
| 8 | -5.94 | -3.53 |
| 9 | -5.94 | -5.82 |
| 10 | -4.37 | +7.09 |
| 11 | -3.96 | +4.47 |
| 12 | -3.96 | +2.18 |

| Ctc | X | y |
|-----|-------|-------|
| 13 | -3.96 | -0.10 |
| 14 | -3.96 | -2.39 |
| 15 | -3.96 | -4.67 |
| 16 | -3.96 | -6.96 |
| 17 | -2.26 | +8.03 |
| 18 | -1.98 | +5.61 |
| 19 | -1.98 | +3.33 |
| 20 | -1.98 | +1.04 |
| 21 | -1.98 | -1.24 |
| 22 | -1.98 | -3.53 |
| 23 | -1.98 | -5.82 |
| 24 | -1.98 | -8.10 |

| Ctc | X | y |
|-----|-------|-------|
| 25 | 0.00 | +8.36 |
| 26 | 0.00 | +4.47 |
| 27 | 0.00 | +2.18 |
| 28 | 0.00 | -0.10 |
| 29 | 0.00 | -2.39 |
| 30 | 0.00 | +4.67 |
| 31 | 0.00 | -6.96 |
| 32 | +2.26 | +8.03 |
| 33 | +1.98 | +5.61 |
| 34 | +1.98 | +3.33 |
| 35 | +1.98 | +1.04 |
| 36 | +1.98 | -1.24 |
| 37 | +1.98 | -3.53 |
| 38 | +1.98 | -5.82 |
| 39 | +1.98 | -8.10 |
| 40 | +4.37 | +7.09 |

| Ctc | X | y |
|-----|-------|-------|
| 41 | +3.96 | +4.47 |
| 42 | +3.96 | +2.18 |
| 43 | +3.96 | -0.10 |
| 44 | +3.96 | -2.39 |
| 45 | +3.96 | -4.67 |
| 46 | +3.96 | -6.96 |
| 47 | +6.15 | +5.61 |
| 48 | +5.94 | +3.33 |
| 49 | +5.94 | +1.04 |
| 50 | +5.94 | -1.24 |
| 51 | +5.94 | -3.53 |
| 52 | +5.94 | -5.82 |
| 53 | +7.92 | +2.18 |
| 54 | +7.92 | -0.10 |
| 55 | +7.92 | -2.39 |

99



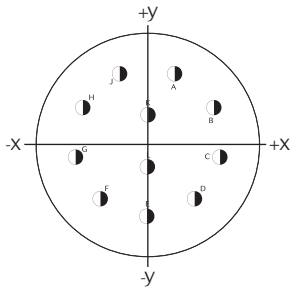
| Ctc | X | y |
|-----|-------|-------|
| A | 0.00 | +8.15 |
| B | +3.33 | +7.44 |
| C | +6.07 | +5.44 |
| D | +7.75 | +2.51 |
| E | +8.10 | -0.86 |
| F | +7.06 | -4.09 |
| G | +4.80 | -6.60 |
| H | +1.70 | -7.98 |
| J | -1.70 | -7.98 |
| K | -4.80 | -6.60 |
| L | -7.06 | -4.09 |
| M | -8.10 | -0.86 |

| Ctc | X | y |
|-----|-------|-------|
| N | -7.75 | +2.51 |
| P | -6.07 | +5.44 |
| R | -3.33 | +7.44 |
| S | -1.78 | +4.50 |
| T | +1.78 | +4.50 |
| U | +4.45 | +2.39 |
| V | +3.81 | -1.91 |
| W | 0.00 | -4.09 |
| X | -3.81 | -1.91 |
| Y | -4.45 | +2.39 |
| Z | 0.00 | +0.64 |



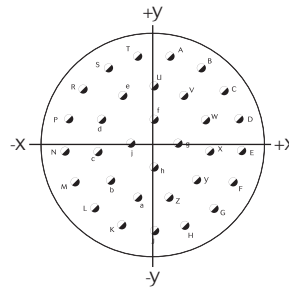
18

11



| Ctc | X | y |
|-----|-------|-------|
| A | +2.67 | +6.60 |
| B | +6.35 | +3.35 |
| C | +6.99 | -1.35 |
| D | +4.55 | -5.46 |
| E | 0.00 | -7.14 |
| F | -4.55 | -5.46 |
| G | -6.99 | -1.35 |
| H | -6.35 | +3.35 |
| J | -2.67 | +6.60 |
| K | 0.00 | +2.67 |
| L | 0.00 | -2.34 |

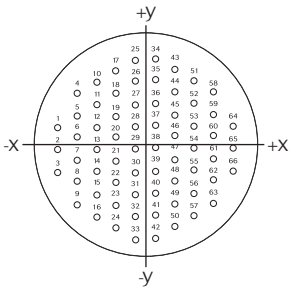
32



| Ctc | X | y |
|-----|-------|-------|
| A | +1.68 | +8.97 |
| B | +4.80 | +7.75 |
| C | +7.26 | +5.51 |
| D | +8.76 | +2.49 |
| E | +9.07 | -0.84 |
| F | +8.15 | -4.06 |
| G | +6.15 | -6.73 |
| H | +3.30 | -8.51 |
| J | 0.00 | -9.12 |
| K | -3.30 | -8.51 |
| L | -6.15 | -6.73 |
| M | -8.15 | -4.06 |
| N | -9.07 | -0.84 |
| P | -8.76 | +2.49 |
| R | -7.26 | +5.51 |
| S | -4.80 | +7.75 |

| Ctc | X | y |
|-----|-------|-------|
| T | -1.68 | +8.97 |
| U | 0.00 | +5.84 |
| V | +3.15 | +4.90 |
| W | +5.31 | +2.41 |
| X | +5.79 | -0.84 |
| Y | +4.42 | -3.84 |
| Z | +1.65 | -5.61 |
| a | -1.65 | -5.61 |
| b | -4.42 | -3.84 |
| c | -5.79 | -0.84 |
| d | -5.31 | +2.41 |
| e | -3.15 | +4.90 |
| f | 0.00 | +2.44 |
| g | +2.44 | 0.00 |
| h | 0.00 | -2.44 |
| j | -2.44 | 0.00 |

35



| Ctc | X | y |
|-----|-------|-------|
| 1 | -9.07 | +2.29 |
| 2 | -9.07 | +0.08 |
| 3 | -9.07 | -2.29 |
| 4 | -7.09 | +5.72 |
| 5 | -7.09 | +3.43 |
| 6 | -7.09 | +1.14 |
| 7 | -7.09 | -1.14 |
| 8 | -7.09 | -3.43 |
| 9 | -7.09 | -5.72 |
| 10 | -5.11 | +6.86 |
| 11 | -5.11 | +4.57 |
| 12 | -5.11 | +2.29 |
| 13 | -5.11 | 0.00 |
| 14 | -5.11 | -2.29 |

| Ctc | X | y |
|-----|-------|-------|
| 15 | -5.11 | -4.57 |
| 16 | -5.11 | -6.86 |
| 17 | -3.12 | +8.00 |
| 18 | +3.12 | +5.72 |
| 19 | -3.12 | +3.43 |
| 20 | -3.12 | +1.14 |
| 21 | -3.12 | -1.14 |
| 22 | -3.12 | -3.43 |
| 23 | -3.12 | -5.72 |
| 24 | -3.12 | -8.00 |
| 25 | -1.14 | +9.14 |
| 26 | -1.14 | +6.86 |
| 27 | -1.14 | +4.57 |

| Ctc | X | y |
|-----|-------|-------|
| 28 | -1.14 | +2.29 |
| 29 | -1.14 | 0.00 |
| 30 | -1.14 | -2.29 |
| 31 | -1.14 | -4.57 |
| 32 | -1.14 | -6.86 |
| 33 | -1.14 | -9.14 |
| 34 | +1.14 | +9.14 |
| 35 | +1.14 | +6.86 |
| 36 | +1.14 | +4.57 |
| 37 | +1.14 | +2.29 |
| 38 | +1.14 | 0.00 |
| 39 | +1.14 | -2.29 |
| 40 | +1.14 | -4.57 |

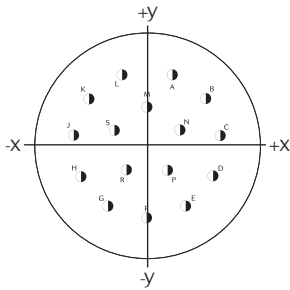
| Ctc | X | y |
|-----|-------|-------|
| 41 | +1.14 | -6.86 |
| 42 | +1.14 | -9.14 |
| 43 | +3.12 | +8.00 |
| 44 | +3.12 | +5.72 |
| 45 | +3.12 | +3.43 |
| 46 | +3.12 | +1.14 |
| 47 | +3.12 | -1.14 |
| 48 | +3.12 | -3.43 |
| 49 | +3.12 | -5.72 |
| 50 | +3.12 | -8.00 |
| 51 | +5.11 | +6.86 |
| 52 | +5.11 | +4.57 |
| 53 | +5.11 | +2.29 |

| Ctc | X | y |
|-----|-------|-------|
| 54 | +5.11 | 0.00 |
| 55 | +5.11 | -2.29 |
| 56 | +5.11 | -4.57 |
| 57 | +5.11 | -6.86 |
| 58 | +7.09 | +5.72 |
| 59 | +7.09 | +3.43 |
| 60 | +7.09 | +1.14 |
| 61 | +7.09 | -1.14 |
| 62 | +7.09 | -3.43 |
| 63 | +7.09 | -5.72 |
| 64 | +9.07 | +2.29 |
| 65 | +9.07 | 0.00 |
| 66 | +9.07 | -2.29 |



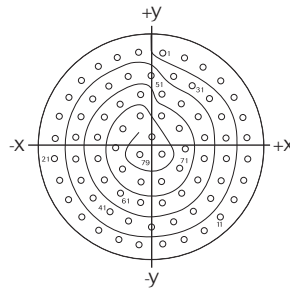
20

16



| Ctc | X | y | Ctc | X | y |
|-----|-------|-------|-----|-------|-------|
| A | +3.00 | +8.18 | J | -8.66 | +0.91 |
| B | +6.88 | +5.36 | K | -6.88 | +5.36 |
| C | +8.66 | +0.91 | L | -3.00 | +8.18 |
| D | +7.82 | -3.81 | M | 0.00 | +4.45 |
| E | +4.62 | -7.37 | N | +3.91 | +1.57 |
| F | 0.00 | -8.71 | P | +2.39 | -3.10 |
| G | -4.62 | -7.37 | R | -2.39 | -3.10 |
| H | -7.82 | -3.81 | S | -3.91 | +1.57 |

35



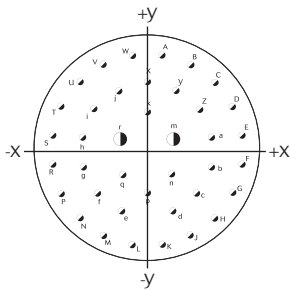
| Ctc | X | y |
|-----|--------|--------|
| 1 | +1.35 | +10.82 |
| 2 | +3.71 | +10.26 |
| 3 | +5.89 | +9.19 |
| 4 | +7.77 | +7.67 |
| 5 | +9.27 | +5.77 |
| 6 | +10.31 | +3.58 |
| 7 | +10.85 | +1.22 |
| 8 | +10.85 | -1.22 |
| 9 | +10.31 | -3.58 |
| 10 | +9.27 | -5.77 |
| 11 | +7.77 | -7.67 |
| 12 | +5.89 | -9.19 |
| 13 | +3.71 | -10.26 |

| Ctc | X | y |
|-----|--------|--------|
| 14 | +1.35 | -10.82 |
| 15 | -1.35 | -10.82 |
| 16 | -3.71 | -10.26 |
| 17 | -5.89 | -9.19 |
| 18 | -7.77 | -7.67 |
| 19 | -9.27 | -5.77 |
| 20 | -10.31 | -3.58 |
| 21 | -10.85 | -1.22 |
| 22 | -10.85 | +1.22 |
| 23 | -10.31 | +3.58 |
| 24 | -9.27 | +5.77 |
| 25 | -7.77 | +7.67 |
| 26 | -5.89 | +9.19 |
| 27 | -3.71 | +10.26 |
| 28 | -1.35 | +10.82 |
| 29 | 0.00 | +8.20 |
| 30 | +2.49 | +8.18 |
| 31 | +4.67 | +7.11 |
| 32 | +6.55 | +5.59 |
| 33 | +7.90 | +3.58 |
| 34 | +8.43 | +1.22 |
| 35 | +8.43 | -1.22 |

| Ctc | X | y |
|-----|-------|-------|
| 36 | +7.90 | -3.58 |
| 37 | +6.55 | -5.59 |
| 38 | +4.67 | -7.11 |
| 39 | +2.49 | -8.18 |
| 40 | 0.00 | -8.81 |
| 41 | -2.49 | -8.18 |
| 42 | -4.67 | -7.11 |
| 43 | -6.55 | -5.59 |
| 44 | -7.90 | -3.58 |
| 45 | -8.43 | -1.22 |
| 46 | -8.43 | +1.22 |
| 47 | -7.90 | +3.58 |
| 48 | -6.55 | +5.59 |
| 49 | -4.67 | +7.11 |
| 50 | -2.49 | +8.18 |
| 51 | -1.22 | +6.12 |
| 52 | +1.22 | +6.12 |
| 53 | +3.40 | +5.05 |
| 54 | +5.28 | +3.53 |
| 55 | +6.02 | +1.22 |
| 56 | +6.02 | -1.22 |
| 57 | +5.28 | -3.53 |

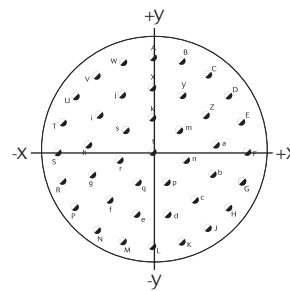
| Ctc | X | y |
|-----|-------|-------|
| 58 | +3.40 | -5.05 |
| 59 | +1.22 | -6.12 |
| 60 | -1.22 | -6.12 |
| 61 | -3.40 | -5.05 |
| 62 | -5.28 | -3.53 |
| 63 | -6.02 | -1.22 |
| 64 | -6.02 | +1.22 |
| 65 | -5.28 | +3.53 |
| 66 | -3.40 | +5.05 |
| 67 | -1.22 | +3.71 |
| 68 | +1.22 | +3.71 |
| 69 | +3.18 | +2.29 |
| 70 | +3.94 | 0.00 |
| 71 | +3.18 | -2.29 |
| 72 | +1.22 | -3.71 |
| 73 | -1.22 | -3.71 |
| 74 | -3.18 | -2.29 |
| 75 | -3.94 | 0.00 |
| 76 | -3.18 | +2.29 |
| 77 | 0.00 | +1.35 |
| 78 | +1.22 | -0.74 |
| 79 | -1.22 | -0.74 |

39



| Ctc | X | y | Ctc | X | y | Ctc | X | y |
|-----|--------|--------|-----|--------|--------|-----|-------|-------|
| A | +1.65 | +10.44 | P | -9.42 | -4.80 | d | +2.84 | -6.73 |
| B | +4.80 | +9.42 | R | -10.44 | -1.65 | e | -2.84 | -6.73 |
| C | +7.47 | +7.47 | S | -10.44 | +1.65 | f | -5.51 | -4.80 |
| D | +9.42 | +4.80 | T | -9.42 | +4.80 | g | -7.11 | -1.88 |
| E | +10.44 | +1.65 | U | -7.47 | +7.47 | h | -7.11 | +1.45 |
| F | +10.44 | -1.65 | V | -4.80 | +9.42 | i | -5.89 | +4.55 |
| G | +9.42 | -4.80 | W | -1.65 | +10.44 | j | -3.20 | +6.50 |
| H | +7.47 | -7.47 | X | 0.00 | +7.49 | k | 0.00 | +4.17 |
| J | +4.80 | -9.42 | Y | +3.20 | +6.50 | m | +2.90 | +1.22 |
| K | +1.65 | -10.44 | Z | +5.89 | +4.55 | n | +2.69 | -2.72 |
| L | -1.65 | -10.44 | a | +7.11 | +1.45 | p | 0.00 | -4.80 |
| M | -4.80 | -9.42 | b | +7.11 | -1.88 | q | -2.69 | -2.72 |
| N | -7.47 | -7.47 | c | +5.51 | -4.80 | r | -2.90 | +1.22 |

41



| Ctc | X | y |
|-----|--------|--------|
| A | 0.00 | +10.60 |
| B | +3.28 | +10.09 |
| C | +6.23 | +8.58 |
| D | +8.58 | +6.23 |
| E | +10.09 | +3.28 |
| F | +10.60 | 0.00 |
| G | +10.09 | -3.28 |
| H | +8.58 | -6.23 |
| J | +6.23 | -8.58 |
| K | +3.28 | -10.09 |
| L | 0.00 | -10.60 |

| Ctc | X | y |
|-----|--------|--------|
| M | -3.26 | -10.09 |
| N | -6.23 | -8.58 |
| P | -8.58 | -6.23 |
| R | -10.09 | -3.28 |
| S | -10.60 | 0.00 |
| T | -10.09 | +3.28 |
| U | -8.58 | +6.23 |
| V | -6.23 | +8.58 |
| W | -3.28 | +10.09 |
| X | 0.00 | +7.20 |
| Y | +3.35 | +6.38 |

| Ctc | X | y |
|-----|-------|-------|
| Z | +5.92 | +4.09 |
| a | +7.15 | +0.87 |
| b | +6.73 | -2.55 |
| c | +4.78 | -5.39 |
| d | +1.73 | -6.99 |
| e | -1.73 | -6.99 |
| f | -4.78 | -5.39 |
| g | -6.73 | -2.55 |
| h | -7.15 | +0.87 |
| i | -5.92 | +4.09 |
| j | -3.35 | +6.38 |
| k | 0.00 | +3.81 |
| m | +2.98 | +2.38 |
| n | +3.71 | -0.85 |
| p | -1.66 | -3.43 |
| q | +1.66 | -3.43 |
| r | -3.71 | -0.85 |
| s | -2.98 | +2.38 |
| t | 0.00 | 0.00 |

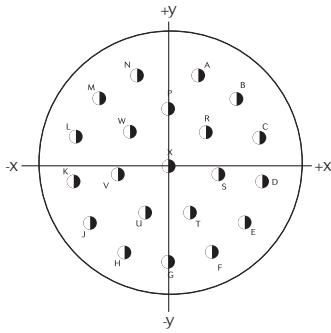
8ST Series

VG96912 & JN1003



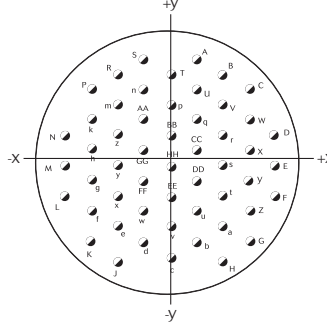
22

21



| Ctc | X | y |
|-----|--------|--------|
| A | +3.25 | +9.78 |
| B | +7.34 | +7.24 |
| C | +9.80 | +3.12 |
| D | +10.16 | -1.65 |
| E | +8.33 | -6.07 |
| F | +4.65 | -9.19 |
| G | 0.00 | -10.31 |
| H | -4.65 | -9.19 |
| J | -8.33 | -6.07 |
| K | -10.16 | -1.65 |
| L | -9.80 | +3.12 |
| M | -7.34 | +7.24 |
| N | -3.25 | +9.78 |
| P | 0.00 | +6.22 |
| R | +4.06 | +3.71 |
| S | +5.44 | -0.89 |
| T | +2.39 | -4.93 |
| U | -2.39 | -4.93 |
| V | -5.44 | -0.89 |
| W | -4.06 | +3.71 |
| X | 0.00 | 0.00 |

53



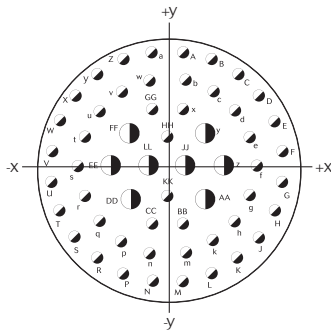
| Ctc | X | y |
|-----|--------|--------|
| N | -11.43 | +3.30 |
| P | -8.53 | +8.26 |
| R | -5.72 | +9.91 |
| S | -2.84 | +11.56 |
| T | 0.00 | +9.91 |
| U | +2.84 | +8.26 |
| V | +5.72 | +6.60 |
| W | +8.53 | +4.95 |
| X | +8.53 | +1.65 |
| Y | +8.53 | -1.65 |
| Z | +8.53 | -4.95 |
| a | +5.72 | -6.60 |
| b | +2.84 | -8.26 |
| c | 0.00 | -9.91 |
| d | -2.84 | -8.26 |
| e | -5.72 | -6.60 |
| f | -8.53 | -4.95 |
| g | -8.53 | -1.65 |
| h | -8.53 | +1.65 |
| k | -8.53 | +4.95 |
| m | -5.72 | +6.60 |
| n | -2.84 | +8.26 |
| p | 0.00 | +6.60 |
| q | +2.84 | +4.95 |
| r | +5.72 | +3.30 |
| s | +5.72 | 0.00 |
| t | +5.72 | -3.30 |
| u | +2.84 | -4.95 |
| v | 0.00 | -6.60 |
| w | -2.84 | -4.95 |
| x | -5.72 | -3.30 |
| y | -5.72 | 0.00 |
| z | -5.72 | +3.30 |
| AA | -2.84 | +4.95 |
| BB | 0.00 | +3.30 |
| CC | +2.84 | +1.65 |
| DD | +2.84 | -1.65 |
| EE | 0.00 | -3.30 |
| FF | -2.84 | -1.65 |
| GG | -2.84 | +1.65 |
| HH | 0.00 | 0.00 |

| Ctc | X | y |
|-----|--------|--------|
| A | +2.84 | +11.56 |
| B | +5.72 | +9.91 |
| C | +8.53 | +8.26 |
| D | +11.43 | +3.30 |
| E | +11.43 | 0.00 |
| F | +11.43 | -3.30 |

| Ctc | X | y |
|-----|--------|--------|
| G | +8.53 | -8.26 |
| H | +5.72 | -10.41 |
| J | -5.72 | -10.41 |
| K | -8.53 | -8.26 |
| L | -11.43 | -3.30 |
| M | -11.43 | 0.00 |

24

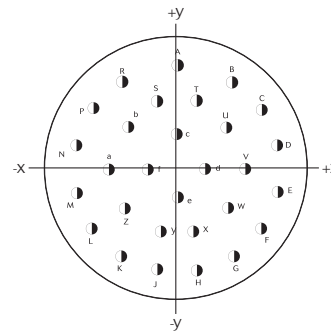
04



| Ctc | X | y |
|-----|--------|--------|
| R | -8.23 | -10.80 |
| S | -10.77 | -8.28 |
| T | -12.52 | -5.21 |
| U | -13.49 | -1.75 |
| V | -13.49 | +1.75 |
| W | -12.52 | +5.21 |
| X | -10.77 | +8.28 |
| Y | -8.23 | +10.80 |
| Z | -5.16 | +12.57 |
| a | -1.75 | +13.49 |
| b | +2.18 | +10.08 |
| c | +5.38 | +8.78 |
| d | +7.90 | +6.38 |
| e | +9.58 | +3.35 |
| f | +10.46 | 0.00 |
| g | +9.58 | -3.35 |
| h | +7.90 | -6.38 |
| k | +5.38 | -8.78 |
| m | +2.18 | -10.08 |
| n | -2.18 | -10.08 |
| p | -5.38 | -8.78 |

| Ctc | X | y |
|-----|--------|--------|
| q | -7.90 | -6.38 |
| r | -9.58 | -3.35 |
| s | -10.46 | 0.00 |
| t | -9.58 | +3.35 |
| u | -7.90 | +6.38 |
| v | -5.38 | +8.78 |
| w | -2.18 | +10.08 |
| x | +1.75 | +6.66 |
| y | +4.37 | +3.78 |
| z | +6.55 | 0.00 |
| AA | +4.37 | -3.78 |
| BB | +1.75 | -6.66 |
| CC | -1.75 | -6.66 |
| DD | -4.37 | -3.78 |
| EE | -6.55 | 0.00 |
| FF | -4.37 | -3.78 |
| GG | -1.75 | -6.66 |
| HH | 0.00 | +3.35 |
| JJ | +2.18 | 0.00 |
| KK | 0.00 | -3.35 |
| LL | -2.18 | 0.00 |

29



| Ctc | X | y |
|-----|--------|--------|
| A | 0.00 | +12.22 |
| B | +6.55 | +10.31 |
| C | +10.03 | +7.04 |
| D | +11.91 | +2.77 |
| E | +11.91 | -2.77 |
| F | +10.03 | -7.04 |
| G | +6.68 | -10.31 |
| H | +2.31 | -11.99 |

| Ctc | X | y |
|-----|--------|--------|
| J | -2.31 | -11.99 |
| K | -6.68 | -10.31 |
| L | -10.03 | -7.04 |
| M | -11.91 | -2.77 |
| N | -11.91 | +2.77 |
| P | -10.03 | +7.04 |
| R | -6.55 | +10.31 |
| S | -2.31 | +8.15 |
| T | +2.31 | +8.15 |
| U | +5.79 | +4.93 |
| V | +8.10 | 0.00 |
| W | +6.10 | -4.60 |
| X | +2.31 | -7.37 |
| Y | -2.31 | -7.37 |
| Z | -6.10 | -4.60 |
| a | -8.10 | 0.00 |
| b | -5.79 | +4.93 |
| c | 0.00 | +4.09 |
| d | +3.40 | 0.00 |
| e | 0.00 | -3.30 |
| f | -3.40 | 0.00 |

| Ctc | X | y |
|-----|--------|--------|
| A | +1.75 | +13.49 |
| B | +5.16 | +12.57 |
| C | +8.23 | +10.80 |
| D | +10.77 | +8.28 |
| E | +12.52 | +5.21 |
| F | +13.49 | +1.75 |
| G | +13.49 | -1.75 |

| Ctc | X | y |
|-----|--------|--------|
| H | +12.52 | -5.21 |
| J | +10.77 | -8.28 |
| K | +8.23 | -10.80 |
| L | +5.16 | -12.57 |
| M | +1.75 | -13.49 |
| N | -1.75 | -13.49 |
| P | -5.16 | -12.57 |

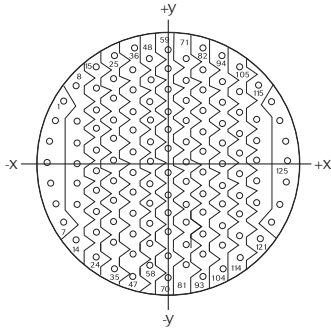
8ST Series

VG96912 & JN1003



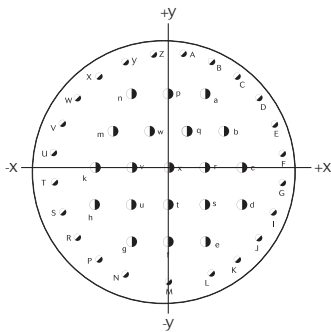
24

35



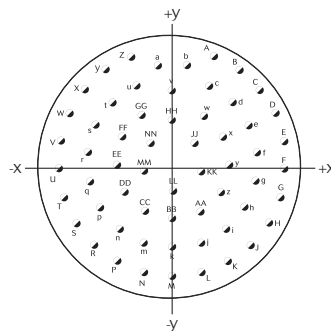
| Ctc | X | y | Ctc | X | y | Ctc | X | y | Ctc | X | y | Ctc | X | y |
|-----|--------|--------|-----|-------|--------|-----|-------|--------|-----|-------|--------|-----|--------|--------|
| 1 | -12.17 | +7.09 | 27 | -6.32 | +7.24 | 53 | -2.11 | 0.00 | 79 | +2.11 | -7.24 | 104 | +6.32 | -12.07 |
| 2 | -13.21 | +4.83 | 28 | -6.32 | +4.83 | 54 | -2.11 | -2.41 | 80 | +2.11 | -9.65 | 105 | +8.43 | +11.28 |
| 3 | -13.87 | +2.41 | 29 | -6.32 | +2.41 | 55 | -2.11 | -4.83 | 81 | +2.11 | -12.07 | 106 | +8.43 | +8.43 |
| 4 | -14.10 | 0.00 | 30 | -6.32 | 0.00 | 56 | -2.11 | -7.24 | 82 | +4.06 | +13.49 | 107 | +8.43 | +6.02 |
| 5 | -13.87 | -2.41 | 31 | -6.32 | -2.41 | 57 | -2.11 | -9.65 | 83 | +4.22 | +10.85 | 108 | +8.43 | +3.61 |
| 6 | -13.21 | -4.83 | 32 | -6.32 | -4.83 | 58 | -2.11 | -12.07 | 84 | +4.22 | +8.43 | 109 | +8.43 | +1.19 |
| 7 | -12.17 | -7.09 | 33 | -6.32 | -7.24 | 59 | 0.00 | +13.26 | 85 | +4.22 | +6.02 | 110 | +8.43 | -1.19 |
| 8 | -10.77 | +9.07 | 34 | -6.32 | -9.65 | 60 | 0.00 | +10.85 | 86 | +4.22 | +3.61 | 111 | +8.43 | -3.61 |
| 9 | -10.54 | +4.83 | 35 | -6.32 | -12.07 | 61 | 0.00 | +8.43 | 87 | +4.22 | +1.19 | 112 | +8.43 | -6.02 |
| 10 | -10.54 | +2.41 | 36 | -4.06 | +13.49 | 62 | 0.00 | +6.02 | 88 | +4.22 | -1.19 | 113 | +8.43 | -8.43 |
| 11 | -10.54 | 0.00 | 37 | -4.22 | +10.85 | 63 | 0.00 | +3.61 | 89 | +4.22 | -3.61 | 114 | +8.43 | -10.85 |
| 12 | -10.54 | -2.41 | 38 | -4.22 | +8.43 | 64 | 0.00 | +1.19 | 90 | +4.22 | -6.02 | 115 | +10.77 | +9.07 |
| 13 | -10.54 | -4.83 | 39 | -4.22 | +6.02 | 65 | 0.00 | -1.19 | 91 | +4.22 | -8.43 | 116 | +10.54 | +4.83 |
| 14 | -10.77 | -9.07 | 40 | -4.22 | +3.61 | 66 | 0.00 | -3.61 | 92 | +4.22 | -10.85 | 117 | +10.54 | +2.41 |
| 15 | -8.43 | +11.28 | 41 | -4.22 | +1.19 | 67 | 0.00 | -6.02 | 93 | +4.22 | -13.26 | 118 | +10.54 | 0.00 |
| 16 | -8.43 | +8.43 | 42 | -4.22 | -1.19 | 68 | 0.00 | -8.43 | 94 | +6.32 | +12.60 | 119 | +10.54 | -2.41 |
| 17 | -8.43 | +6.02 | 43 | -4.22 | -3.61 | 69 | 0.00 | -10.85 | 95 | +6.32 | +9.65 | 120 | +10.54 | -4.83 |
| 18 | -8.43 | +3.61 | 44 | -4.22 | -6.02 | 70 | 0.00 | -14.10 | 96 | +6.32 | +7.24 | 121 | +10.77 | -9.07 |
| 19 | -8.43 | +1.19 | 45 | -4.22 | -8.43 | 71 | +2.11 | +12.07 | 97 | +6.32 | +4.83 | 122 | +12.17 | +7.09 |
| 20 | -8.43 | -1.19 | 46 | -4.22 | -10.85 | 72 | +2.11 | +9.65 | 98 | +6.32 | +2.41 | 123 | +13.21 | +4.83 |
| 21 | -8.43 | -3.61 | 47 | -4.22 | -13.26 | 73 | +2.11 | +7.34 | 99 | +6.32 | 0.00 | 124 | +13.87 | +2.41 |
| 22 | -8.43 | -6.02 | 48 | -2.11 | +12.07 | 74 | +2.11 | +4.83 | 100 | +6.32 | -2.41 | 125 | +14.10 | 0.00 |
| 23 | -8.43 | -8.43 | 49 | -2.11 | +9.65 | 75 | +2.11 | +2.41 | 101 | +6.32 | -4.83 | 126 | +13.87 | -2.41 |
| 24 | -8.43 | -10.85 | 50 | -2.11 | +7.24 | 76 | +2.11 | 0.00 | 102 | +6.32 | -7.24 | 127 | +13.21 | -4.83 |
| 25 | -6.32 | +12.60 | 51 | -2.11 | +4.83 | 77 | +2.11 | -2.41 | 103 | +6.32 | -9.65 | 128 | +12.17 | -7.09 |
| 26 | -6.32 | +9.65 | 52 | -2.11 | +2.41 | 78 | +2.11 | -4.83 | | | | | | |

43



| Ctc | X | y | Ctc | X | y |
|-----|--------|--------|-----|-------|-------|
| A | +1.75 | +13.49 | Z | -1.75 | +13.4 |
| B | +5.16 | +12.57 | a | +4.37 | +8.74 |
| C | +8.23 | +10.80 | b | +6.55 | +4.37 |
| D | +10.77 | +8.28 | c | +8.74 | 0.00 |
| E | +12.52 | +5.21 | d | +8.74 | -4.37 |
| F | +13.49 | +1.75 | e | +4.37 | -8.74 |
| G | +13.49 | -1.75 | f | 0.00 | -8.74 |
| H | +12.52 | -5.21 | g | -4.37 | -8.74 |
| J | +10.77 | -8.28 | h | -8.74 | -4.37 |
| K | +8.23 | -10.80 | k | -8.74 | 0.00 |
| L | +5.16 | -12.57 | m | -6.55 | +4.37 |
| M | 0.00 | -13.49 | n | -4.37 | +8.74 |
| N | -5.16 | -12.57 | p | 0.00 | +8.74 |
| P | -8.23 | -10.80 | q | +2.18 | +4.37 |
| R | -10.77 | -8.28 | r | +4.37 | 0.00 |
| S | -12.52 | -5.21 | s | +4.37 | -4.37 |
| T | -13.49 | -1.75 | t | 0.00 | -4.37 |
| U | -13.49 | +1.75 | u | -4.37 | -4.37 |
| V | -12.52 | +5.21 | v | -4.37 | 0.00 |
| W | -10.77 | +8.28 | w | -2.18 | +4.37 |
| X | -8.23 | +10.80 | x | 0.00 | 0.00 |
| Y | -5.16 | +12.57 | | | |

61



| Ctc | X | y | Ctc | X | y |
|-----|--------|--------|-----|--------|--------|
| A | +4.98 | +12.70 | K | +6.58 | -11.94 |
| B | +7.98 | +11.05 | L | +3.40 | -13.18 |
| C | +10.49 | +8.71 | M | 0.00 | -13.64 |
| D | +12.32 | +5.84 | N | -3.40 | -13.18 |
| E | +13.39 | +2.57 | P | -6.58 | -11.94 |
| F | +13.61 | -0.76 | R | -9.35 | -9.93 |
| G | +12.98 | -4.17 | S | -11.53 | -7.29 |
| H | +11.53 | -7.29 | T | -12.98 | -4.17 |
| J | +9.35 | -9.93 | U | -13.61 | -0.76 |

| Ctc | X | y | Ctc | X | y |
|-----|--------|--------|-----|-------|-------|
| V | -13.39 | +2.57 | t | -7.24 | +7.19 |
| W | -12.32 | +5.84 | u | -4.39 | +9.22 |
| X | -10.49 | +8.71 | v | 0.00 | +8.59 |
| Y | -7.98 | -11.05 | w | +3.73 | +5.66 |
| Z | -4.98 | +12.10 | x | +6.02 | +3.10 |
| a | -1.73 | +11.53 | y | +6.78 | -0.25 |
| b | +1.73 | +11.53 | z | +5.79 | -3.53 |
| c | +4.39 | +9.22 | AA | +3.33 | -5.92 |
| d | +7.24 | +7.19 | BB | 0.00 | -6.78 |
| e | +9.19 | +4.45 | CC | -3.33 | -5.92 |
| f | +10.13 | +1.17 | DD | -5.79 | -3.53 |
| g | +9.96 | -2.24 | EE | -6.78 | -0.25 |
| h | +8.66 | -5.41 | FF | -6.02 | +3.10 |
| i | +6.38 | -7.98 | GG | -3.73 | +5.66 |
| j | +3.38 | -9.63 | HH | 0.00 | +5.08 |
| k | 0.00 | -10.21 | JJ | +2.67 | +2.39 |
| m | -3.38 | -9.63 | KK | +3.43 | -1.04 |
| n | -6.38 | -7.98 | LL | 0.00 | -3.35 |
| p | -8.66 | -5.41 | MM | -3.43 | -1.04 |
| q | -9.96 | -2.24 | NN | -2.67 | +2.39 |
| r | -10.13 | +1.17 | PP | 0.00 | 0.00 |
| s | -9.19 | +4.45 | | | |

OST Series



8ST Series

Range Extension

| | |
|---|----|
| ■ 8STA Series & 8STA derived Series | 52 |
| ■ 847/848 Series | 53 |
| ■ VGE1 Series | 53 |
| ■ micro38999 Series | 54 |
| ■ 851 Series | 54 |





Range Extension

Product range extension

8STA Series

8STA Series circular connectors are derived from international military specifications MIL-DTL-38999 and JN1003. Dedicated to Motorsport markets, 8STA Series connectors are designed to withstand high levels of shock and vibration in harsh environments.

The world smallest and most popular connector:

- . 8STA Series Size 02.
- . Miniature lightweight connector.
- . Ideal for areas where space is a premium.

Versatility:

- . Removable crimp contacts.
- . Available with PCB contacts.

User friendly:

- . Quick bayonet locking.
- . Integrated backshell
- . Visual color indication when mated.
- . Up to 7 color coded keyway orientations.



See «Compact Circular Connectors 8STA/8TA Series» catalog on www.souriau.com

8STA Derived Series

One of the primary objectives with 8STA Series family is to push the boundaries of innovation ! Continuing on with this theme, many new 8STA products are developed by SOURIAU teams.

Blind mating plug:

- . Quick connection in hard-to-reach areas.
- . Compensating misalignment in 3 axes.

Steering boss system:

- . Quick release.

Hermetic & fuel tank version:

- . Excellent hermeticity and corrosion resistance.
- . Resistance to racing fuels and fluids.

Integrated clinch nuts:

- . Elimination of nut plates - convenient, weight and time saving.

High density layouts and power contacts available.



See «Compact Circular Connectors 8STA/8TA Series» catalog on www.souriau.com



Range Extension

Product range extension

847/848 Series

Especially designed for light and harsh environment. Its physical characteristics and performances are appreciated in a large range of applications: military ground equipment, heavy weapons, ...

Environment friendly:

- . RoHS black zinc nickel: 848 Series.
- . 500 hours salt spray.

Safety:

- . DIN EN 60664-1 (VDE 0110-1) approved.

Reliable:

- . Robust circular aluminum connector.
- . Power supply up to 63A (DC to 3 phase AC)
- . Large variety of backshells and wide range of wire gauges and current carrying capabilities.

Standards:

- . VG96918 approved and qualified.



See «847/848 Series - Power Supply up to 63A» product news on www.souriau.com

VGE1 Series

The solution for outdoor/indoor data transmission in harsh environments. Ruggedised bayonet connection. Signal and Quadrax layouts. Tested following NF F 61-030

Quick coupling:

- . Bayonet coupling.

Suitable for indoor applications:

- . Flame retardant material.

High corrosion resistance:

- . 500 hours salt spray resistant.

4 layouts with standard # 16 contacts:

- . 10, 19, 37, 60 contacts.



See «VGE1/FER1 Series - Railway Connectors» catalog on www.souriau.com



Range Extension

Product range extension

micr 38999

A complete miniature range: threaded (8DA), break away (8BA) & bayonet (8LTA). Space saving with scoop proof connector for harsh applications.

A compact solution:

- . Diameter up to 45% smaller than size 9 (D38999).
- . Up to 50% shorter.
- . Integrated backshell: Cost and space saving.

A high density solution:

- . With #26 contacts (according to 39029).
- . 5 layouts (size 3, 5 and 7 with #22 & #26).

Excellent features:

- . Designed for D38999 requirements.
- . IP67 sealing when mated.
- . Stainless steel shell (1500 matings) & aluminum shell (500 matings).

RoHS and Cadmium free:

- . Available in zinc nickel (RoHS) plating, as well as nickel and olive drab cadmium.



See «micro38999, A Complete Miniature Range» catalog on www.souriau.com

851 Series

Designed to ensure reliable and rapid electrical connections thanks to a bayonet locking system. General characteristics and lightweight compact size contribute to successful adoption in numerous applications.

High corrosion resistance:

- . 500 hours salt spray.

Quick coupling:

- . Bayonet coupling (1/3 turn).

Polarization:

- . Five keys.

EMC requirements:

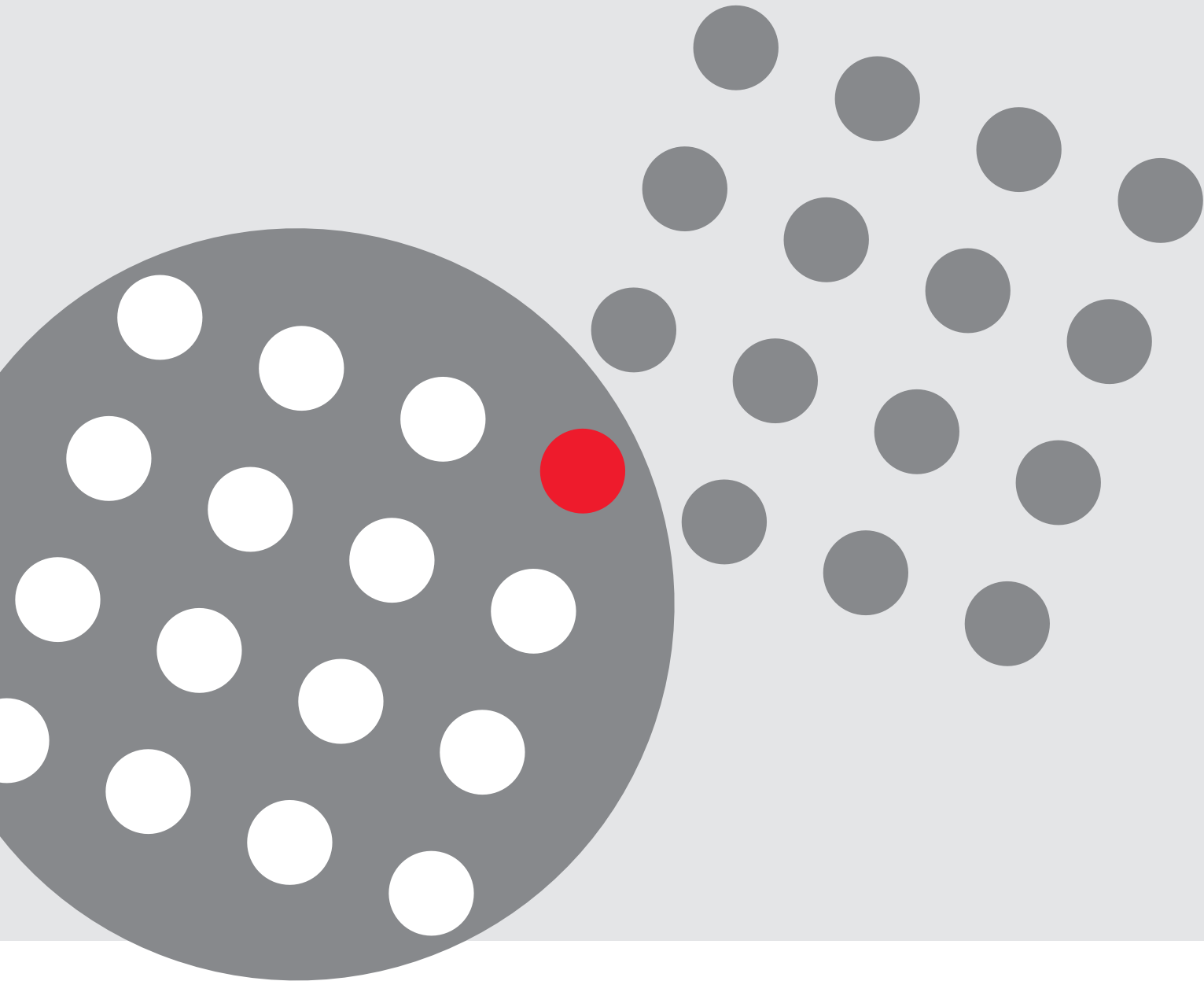
- . Shielded plug available.

Endurance:

- . 500 mating cycles.



See «851 Series - MIL-DTL-26482 Connectors» catalog on www.souriau.com



SOURIAU

www.souriau.com

contactmilaero@souriau.com



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Souriau:

[8STA0F0235SN](#) [8STA20205PN](#) [8STA20205PA](#) [8STA20205PB](#) [8STA20205PC](#) [8STA20205PD](#) [8STA20205PE](#)
[8STA20205SN](#) [8STA20205SA](#) [8STA20205SB](#) [8STA20205SC](#) [8STA20205SE](#) [8STA20205SU](#) [8STA60406PN](#)
[8STA60435PB](#) [8STA0X0635SN](#) [8STA60205PN](#) [8ST0L12G35SN](#) [8STA1Y0205PC170](#) [8ST5-16G35PN](#) [8ST5-](#)
[24F61SN](#) [8STA00205SN](#) [8STA02M20](#) [8STA60835SN](#) [8STA61098PN](#) [8STA10405PC](#) [8STA1X0635PN](#)
[8STA61832PN](#) [8STA71435PA](#) [8STA6F0205PN](#) [8STA71026sa](#) [8STA10205SN](#) [8STA20235PN](#) [8STA60635PC](#)
[8STA11626SN](#) [8STA71419SB](#) [8STA01035PB](#) [8STA11608SN](#) [8STA60406PD](#) [8STA01835SN](#) [8STA02444PA](#)
[8STA01298PD](#) [8STA20405PB](#) [8STA02419SN](#) [8STA00235SA499](#) [8STA21435PB](#) [8STA21835PU](#) [8STA62235SB](#)
[8STA01235SN](#) [8STA61497SN](#) [8STA11435SA](#) [8STA61818SN251](#) [8STA21035PA](#) [8STA00898SD](#) [8STA71608PN](#)
[8STA61098PN824](#) [8STA0X0635PB](#) [8STA01098SB](#) [8STA62039PN](#) [8STAG08](#) [8STA00406SA](#) [8STA60605SC](#)
[8STA01002SB](#) [8STA22035PA](#) [8STA60835PN](#) [8STA1F0235SN](#) [8STA02255PN](#) [8STA60406SB](#) [8STA21298PN](#)
[8STA61635SB](#) [8STA00405SU](#) [8STA70835SN](#) [8STA01298SA](#) [8STA71099SN](#) [8STA21435PU](#) [8STA01435PN499](#)
[8STA21098PD823](#) [8STA60235PE](#) [8STA00609PN](#) [8STA61002PB](#) [8STA01832SN](#) [8STA20635SD528](#) [8STA72235SN](#)
[8STA62424SN](#) [8STA21026sa](#) [8STA71635SN](#) [8STA71002PN](#) [8STA10609SN](#) [8STA00205SA](#) [8STA61201SN261](#)
[8STA01626SB](#) [8STA12016PN](#) [8STA6F0635PA](#) [8STA01435SN](#) [8STA01099PA](#) [8STA00609SN](#) [8STA11002SN](#)
[8STA02235PA](#) [8STA70435SD](#) [8STA71832SB](#)