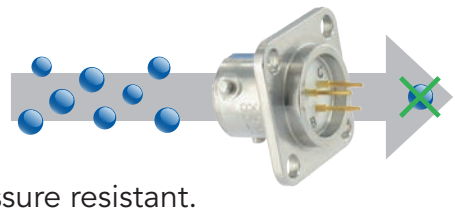
8525 Series
Hermetic Connectors

# Hermetic and Small Bayonet Connectors EN3646 Standard Qualified

**Combination of pressure robustness and compacity. For sensors and space constrained applications.**

**High pressure performance**

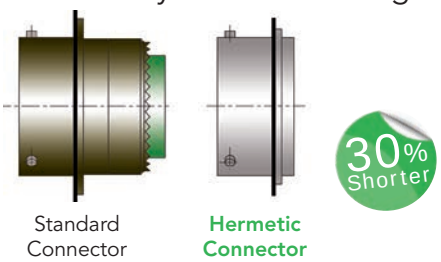
- Glass to metal sealing.
  Helium leakage of less than $10^{-7}$ atm.cm$^3$/s.



Pressure resistant.

**Compact design**

- No rear accessory thread and no grommet.




Standard Connector

Hermetic Connector

**High environmental performance**

- Robust and corrosion resistant stainless shell.
  Rated for up to 200°C use.

SOURIAU
Connection Technologies

## Description

- EN3646 standard qualified robust bayonet coupling according to HE302 standard
- Glass sealed hermetic
- Compact low profile - 30% shorter than the standard version
- Solder cup contacts as well as PCB contacts
- Specific fuel tank version for long term fuel immersion
- Specific large square flange option to adapt an O'ring for an improved panel to connector sealing

# Technical features

## Mechanical

- **Shell:**
  Passivated stainless steel
- **Seals:**
  Silicone elastomer
- **Contact:**
  Gold plated ferrous alloy
- **Shock:**
  As per EN3646
- **Endurance:**
  500 mating/unmating operations
- **Vibrations:**
  5Hz to 3000Hz at constant acceleration of 10g (3 x 4 hours)

## Electrical

- **Max current rating per contact:**

| Contact size | 20 | 16 | 12 |
|---|---|---|---|
| Rating (A) | 5 | 10 | 17 |

- **Dielectric withstanding voltage:**

| Service | Sea level | 21 000 m |
|---|---|---|
| I | 1 500 Vrms | 375 Vrms |
| II | 2 300 Vrms | 500 Vrms |

- **Shell continuity:**
  ≤ 50 mΩ
- **Contact resistance at rated current:**
  Maximum initial contact resistance at ambient temperature

| Contact size | 20 | 16 | 12 |
|---|---|---|---|
| Resistance mΩ | 12 | 8 | 5 |

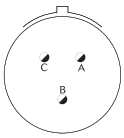
## Environmental

- **Operating temperature:**
  -65°C to 200°C
- **Hermeticity:**
  $10^{-7}$ atm.cm³/s (helium gas test)
- **Salt spray:**
  48 hours min. as per EN3646
- **Resistance to fluids (standard):**
  As per EN3646, including fuel, hydraulic fluids and oils
- **Fuel immersion version:**
  . JP5 long term immersion
  . 105°C maximum

## Contact layouts

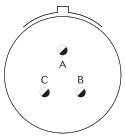
### 08

**B3A**



3#20
Service I

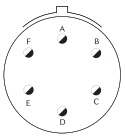
**B33**



3#20
Service I

### 10

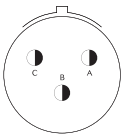
**B6**



6#20
Service I

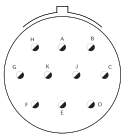
### 12

**B3**



3#16
Service II

**B10**

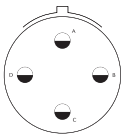


10#20
Service I

Contact #20
Contact #16
Contact #12

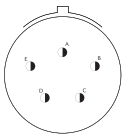
### 14

**B4**



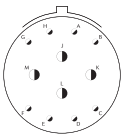
4#12
Service I

**B5**



5#16
Service II

**B12**

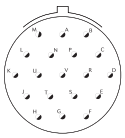


8#20
4#16
Service I

**B15**

14#20
1#16
Service I

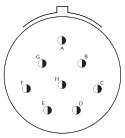
**B19**



19#20
Service I

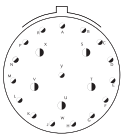
### 16

**B8**



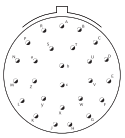
8#16
Service II

**B21**



16#20
5#16
Service I

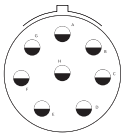
**B26**



26#20
Service I

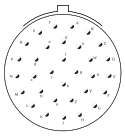
### 18

**B8**



8#12
Service I

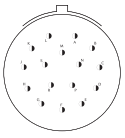
**B32**



32#20
Service I

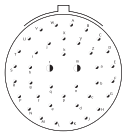
### 20

**B16**



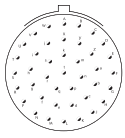
16#16
Service II

**B39**



37#20
2#16
Service I

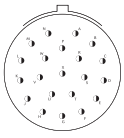
**B41**



41#20
Service I

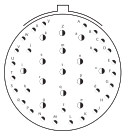
### 22

**B21**



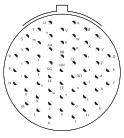
21#16
Service II

**B41**



27#20
14#16
Service I

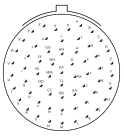
**B55**



55#20
Service I

### 24

**B61**



61#20
Service I

## Contact layouts (matrix)

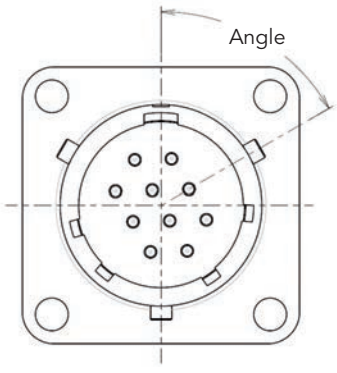
| Shell size | Layout | Hermetic 8525 | Hermetic EN3646 | 8525 spec. 002 | 8525 spec. 022 | 8525 spec. A76 | Number of contacts | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | #20 | #16 | #12 |
| 08 | 8B3A | OK | Q | OK | OK | | 3 | | |
| | 8B33 | OK | Q | OK | | | 3 | | |
| 10 | 10B6 | OK | Q | OK | | | 6 | | |
| 12 | 12B3 | OK | Q | OK | | | | 3 | |
| | 12B8 | Available on request, please consult us | | | | | 8 | | |
| | 12B10 | OK | Q | OK | OK | OK | 10 | | |
| 14 | 14B4 | OK | Q | OK | OK | | | | 4 |
| | 14B5 | OK | Q | OK | | | | 5 | |
| | 14B12 | OK | Q | OK | | | 8 | 4 | |
| | 14B15 | OK | Q | OK | | | 14 | 1 | |
| | 14B19 | OK | Q | OK | OK | OK | 19 | | |
| 16 | 16B8 | OK | Q | OK | | | | 8 | |
| | 16B21 | OK | Q | OK | | | 16 | 5 | |
| | 16B23 | Available on request, please consult us | | | | | 22 | 1 | |
| | 16B26 | OK | Q | OK | OK | | 26 | | |
| 18 | 18B8 | OK | Q | OK | | | | | 8 |
| | 18B11 | Available on request, please consult us | | | | | | 11 | |
| | 18B32 | OK | Q | OK | | | 32 | | |

| Shell size | Layout | Hermetic 8525 | Hermetic EN3646 | 8525 spec. 002 | 8525 spec. 022 | 8525 spec. A76 | Number of contacts | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | #20 | #16 | #12 |
| 20 | 20B16 | OK | Q | OK | | | | 16 | |
| | 20B34 | Available on request, please consult us | | | | | 26 | 8 | |
| | 20B39 | OK | | OK | | | 37 | 2 | |
| | 20B41 | OK | Q | OK | OK | OK | 41 | | |
| 22 | 22B12 | Available on request, please consult us | | | | | | | 12 |
| | 22B21 | OK | Q | OK | | | | 21 | |
| | 22B41 | OK | Q | OK | | | 27 | 14 | |
| | 22B55 | OK | Q | OK | OK | | 55 | | |
| 24 | 24B19 | Available on request, please consult us | | | | | | | 19 |
| | 24B31 | Available on request, please consult us | | | | | | 31 | |
| | 24B61 | OK | Q | OK | | | 61 | | |

OK = SOURIAU's layout
Q = SOURIAU's qualified layout

## Orientation

### Polarization code




Viewed from receptacle front face.
Insulator rotated inside metal body.

| Shell size | Layout | N | W | X | Y | Z |
|---|---|---|---|---|---|---|
| 08 | B3A | 0 | 60 | 210 | - | - |
| | B33 | 0 | 90 | - | - | - |
| 10 | B6 | 0 | 90 | - | - | - |
| 12 | B3 | 0 | 140 | 220 | 180 | - |
| | B10 | 0 | 60 | 155 | 270 | 295 |
| 14 | B4 | 0 | 45 | - | - | - |
| | B5 | 0 | 40 | 92 | 184 | 273 |
| | B12 | 0 | 43 | 90 | - | - |
| | B15 | 0 | 17 | 110 | 155 | 234 |
| | B19 | 0 | 30 | 165 | 315 | - |

| Shell size | Layout | N | W | X | Y | Z |
|---|---|---|---|---|---|---|
| 16 | B8 | 0 | 54 | 152 | 180 | 331 |
| | B21 | 0 | - | - | - | - |
| | B26 | 0 | 60 | - | 275 | 338 |
| 18 | B8 | 0 | 180 | - | - | - |
| | B32 | 0 | 85 | 138 | 222 | 265 |
| 20 | B16 | 0 | 238 | 318 | 333 | 347 |
| | B39 | 0 | 63 | 144 | 252 | 333 |
| | B41 | 0 | 45 | 126 | 225 | - |
| 22 | B21 | 0 | 16 | 135 | 175 | 349 |
| | B41 | 0 | 39 | 135 | 264 | - |
| | B55 | 0 | 30 | 142 | 226 | 314 |
| 24 | B61 | 0 | 90 | 180 | 270 | 324 |

# Ordering information

## SOURIAU part numbers

| Basic series | 8525 | IH | 18B32 | P | N | H |
|---|---|---|---|---|---|---|

**Shell type**
**IH:** Solder mount receptacle
**02H:** Square flange receptacle
**07H:** Jam nut receptacle

**Contact layout**
See page 3

**Contact type**
**P:** Pin

**Orientation**
**N, W, X, Y, Z** - see previous page

**Specification**
**H:** Standard hermetic version
**H002:** Large flange - 02H version only
**022:** Fuel tank version
Other specification (PCB contacts): see page 10

## EN3646 qualified products

| Basic series | EN3646 | Y | 0 | 08 | 03 | M | N |
|---|---|---|---|---|---|---|---|

**Mandatory suffix:**
**Y:** Hermetic

**Shell type:**
**0:** Square flange receptacle
**1:** Solder mount receptacle
**7:** Jam nut receptacle

**Shell size:**
**08, 10, 12, 14, 16, 18, 20, 22, 24**

**Contact layout:**
See page 3

**Contact type:**
**M:** Pin

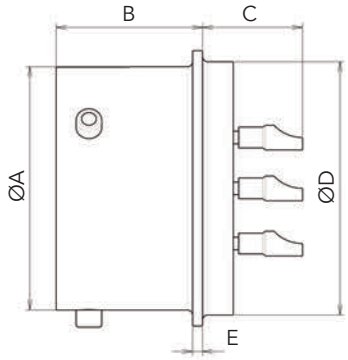
**Orientation:**
**N, W, X, Y, Z** - see previous page

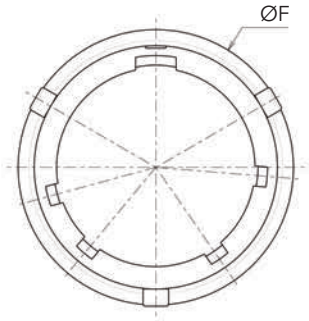
# Maximum connector weights (in grams)

| Shell type \ Shell size | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|---|---|---|---|---|---|---|---|---|---|
| Solder mount receptacle (type IH) | 7 | 9 | 13 | 17 | 21 | 26 | 32 | 37 | 43 |
| Square flange receptacle (type 02H) | 10 | 12 | 16 | 21 | 26 | 33 | 41 | 47 | 55 |
| Large square flange receptacle (type 02H spec. 002) | 16 | 18 | 24 | 29 | 34 | 40 | 56 | 60 | 70 |
| Jam nut receptacle (type 07H) | 20 | 25 | 38 | 45 | 52 | 63 | 86 | 96 | 115 |

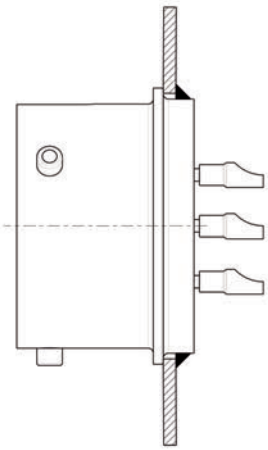
# Dimensions

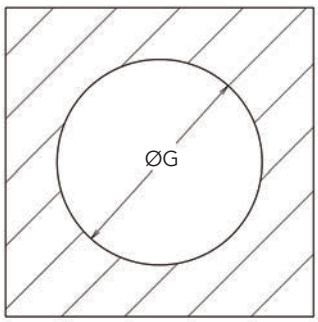
## Solder mount receptacle (type IH)



| Shell size | A max | B ±0.5 | C max | D +0.02 -0.13 | E ±0.14 | F max | G +0.25 0 |
|---|---|---|---|---|---|---|---|
| **8** | 12.02 | 11.5 | 10 | 14.27 | 0.8 | 16.1 | 14.79 |
| **10** | 14.99 | 11.5 | 10 | 17.07 | 0.8 | 19.3 | 17.59 |
| **12** | 19.05 | 11.5 | 10 | 19.84 | 0.8 | 21.7 | 20.36 |
| **14** | 22.23 | 11.5 | 10 | 23.01 | 0.8 | 24.9 | 23.53 |
| **16** | 25.4 | 11.5 | 10 | 26.19 | 0.8 | 28.1 | 26.71 |
| **18** | 28.58 | 11.5 | 10 | 29.36 | 0.8 | 31.2 | 29.88 |
| **20** | 31.75 | 13.5 | 10 | 31.75 | 0.8 | 33.8 | 32.27 |
| **22** | 34.93 | 13.5 | 11 | 34.92 | 0.8 | 36.8 | 35.42 |
| **24** | 38.1 | 13.9 | 11 | 38.1 | 0.8 | 40 | 38.60 |

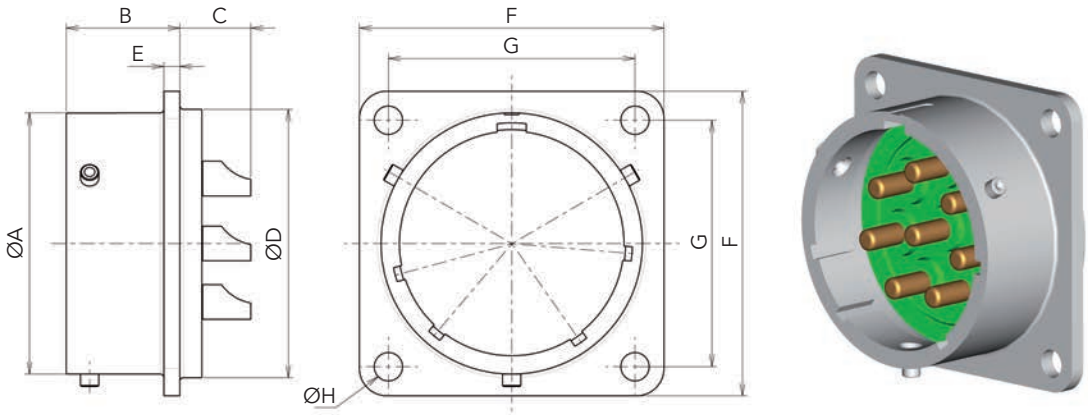




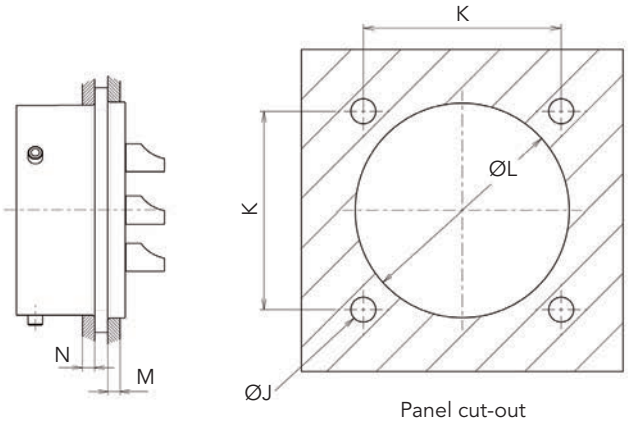

Panel cut-out

Note: All dimensions are in millimeters (mm)

## Square flange receptacle (type 02H)



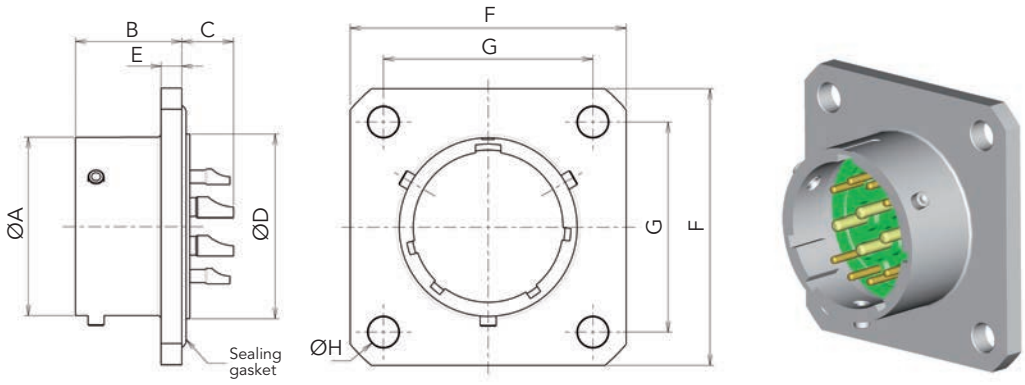

| Shell size | A max | B ±0.55 | C max | D +0 -0.3 | E | F max | G | H ±0.15 | J ±0.15 | K | L +0 -0.3 | M | N max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **8** | 12.02 | 12.65 | 8.4 | 14.3 | 1.63±0.28 | 21.03 | 15.1 | 3.15 | 3.15 | 15.1 | 14.79 | 3.5 | 2.3 |
| **10** | 14.99 | 12.65 | 8.4 | 17.1 | 1.63±0.28 | 24.23 | 18.26 | 3.15 | 3.15 | 18.26 | 17.59 | 3.5 | 2.3 |
| **12** | 19.05 | 12.65 | 8.4 | 19.9 | 1.63±0.28 | 26.59 | 20.62 | 3.15 | 3.15 | 20.62 | 20.36 | 3.5 | 2.3 |
| **14** | 22.23 | 12.65 | 8.4 | 23.05 | 1.63±0.28 | 28.98 | 23.01 | 3.15 | 3.15 | 23.01 | 23.53 | 3.5 | 2.3 |
| **16** | 25.4 | 12.65 | 8.4 | 26.25 | 1.63±0.28 | 31.34 | 24.61 | 3.15 | 3.15 | 24.61 | 26.71 | 3.5 | 2.3 |
| **18** | 28.58 | 12.65 | 8.4 | 29.4 | 1.63±0.28 | 33.73 | 26.97 | 3.15 | 3.15 | 26.97 | 29.88 | 3.5 | 2.3 |
| **20** | 31.75 | 14.25 | 9.6 | 31.8 | 1.93±0.58 | 36.91 | 29.36 | 3.15 | 3.15 | 29.36 | 32.27 | 3.5 | 5.4 |
| **22** | 34.93 | 14.25 | 9.6 | 35 | 1.93±0.58 | 40.1 | 31.75 | 3.15 | 3.15 | 31.75 | 35.42 | 3.5 | 5.4 |
| **24** | 38.1 | 15.05 | 9.6 | 38.2 | 1.93±0.58 | 43.27 | 34.92 | 3.73 | 3.73 | 34.92 | 38.60 | 3.5 | 5.4 |



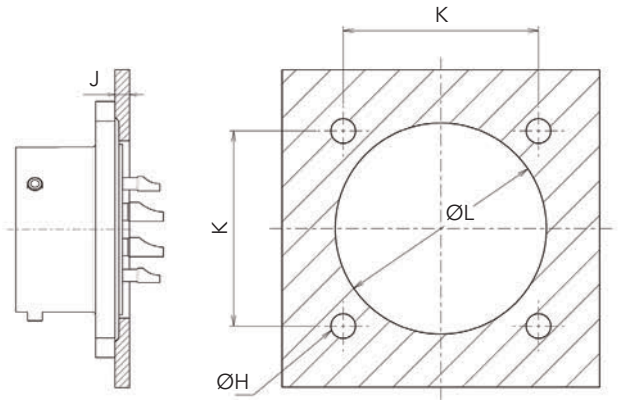

Panel cut-out

Note: All dimensions are in millimeters (mm)

## Large square flange receptacle (type 02H spec. 002)



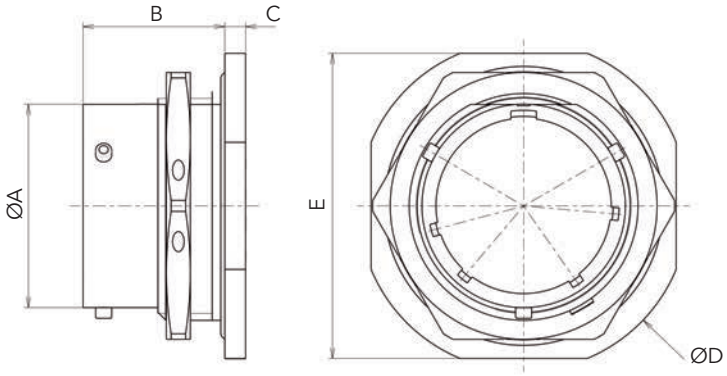

| Shell size | A max | B max | C | | D max | E max | F max | G | H | J | K | L $^{+0}_{-0.3}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | #20 | #12/#16 | | | | | | | | |
| **8** | 12.02 | 13.14 | 6.8 | - | 14.27 | 2.6 | 26.4 | 18.1 | 3.8 | 3.5 | 18.1 | 14.79 |
| **10** | 14.99 | 13.14 | 6.8 | - | 17.06 | 2.6 | 28.9 | 20.62 | 3.8 | 3.5 | 20.62 | 17.59 |
| **12** | 19.05 | 13.14 | 6.8 | 7.1 | 19.83 | 2.6 | 32.1 | 23.82 | 3.8 | 3.5 | 23.82 | 20.36 |
| **14** | 22.23 | 13.14 | 6.8 | 7.1 | 23.01 | 2.6 | 34.5 | 26.18 | 3.8 | 3.5 | 26.18 | 23.53 |
| **16** | 25.4 | 13.14 | 6.8 | 7.1 | 26.18 | 2.6 | 36.8 | 28.57 | 3.8 | 3.5 | 28.57 | 26.71 |
| **18** | 28.58 | 13.14 | 6.8 | 7.1 | 29.36 | 2.6 | 38.8 | 30.55 | 3.8 | 3.5 | 30.55 | 29.88 |
| **20** | 31.75 | 15.84 | 6 | 6.3 | 31.74 | 3.4 | 42.8 | 32.94 | 3.8 | 3.5 | 32.94 | 32.27 |
| **22** | 34.93 | 15.84 | 6 | 6.3 | 34.92 | 3.4 | 44.8 | 34.92 | 3.8 | 3.5 | 34.92 | 35.42 |
| **24** | 38.1 | 16.64 | 5.2 | 5.5 | 38.09 | 3.4 | 47.9 | 38.1 | 3.8 | 3.5 | 38.1 | 38.60 |



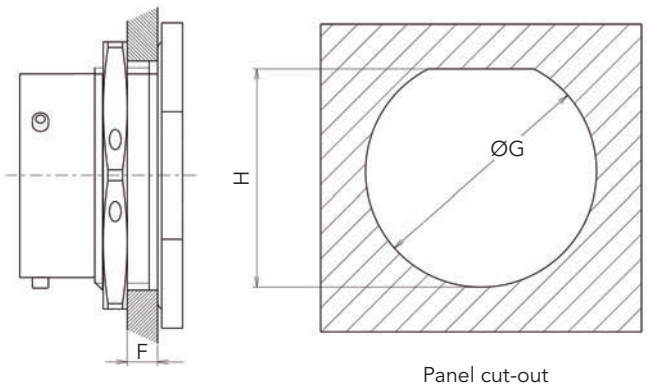

Panel cut-out

Note: All dimensions are in millimeters (mm)

## Jam nut receptacle (type 07H)



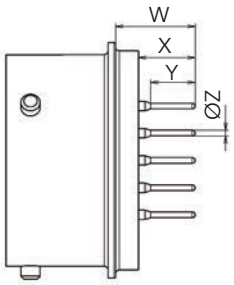

| Shell size | A max | B max | C ±0.-5 | D max | E ±0.25 | F | | G +0.25 -0 | H +0.25 -0 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | min | max | | |
| **8** | 12.02 | 18.34 | 2.4 | 27.37 | 23.82 | 1.57 | 4.75 | 14.4 | 13.48 |
| **10** | 14.99 | 18.34 | 2.4 | 30.57 | 26.97 | 1.57 | 4.75 | 17.58 | 16.66 |
| **12** | 19.05 | 18.34 | 2.4 | 35.32 | 31.75 | 1.57 | 4.75 | 22.6 | 20.8 |
| **14** | 22.23 | 18.34 | 2.4 | 38.5 | 34.92 | 1.57 | 4.75 | 25.52 | 23.95 |
| **16** | 25.4 | 18.34 | 2.4 | 41.67 | 38.1 | 1.57 | 4.75 | 28.7 | 27.1 |
| **18** | 28.58 | 18.34 | 2.4 | 44.85 | 41.27 | 1.57 | 4.75 | 31.87 | 30.27 |
| **20** | 31.75 | 23.12 | 3.2 | 49.62 | 46.02 | 1.57 | 6.35 | 35.05 | 33.45 |
| **22** | 34.93 | 23.12 | 3.2 | 52.77 | 49.22 | 1.57 | 6.35 | 38.22 | 36.62 |
| **24** | 38.1 | 23.95 | 3.2 | 55.97 | 52.37 | 1.57 | 5.56 | 41.4 | 39.8 |



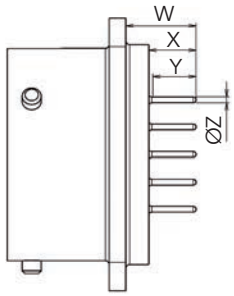

Panel cut-out

Note: All dimensions are in millimeters (mm)

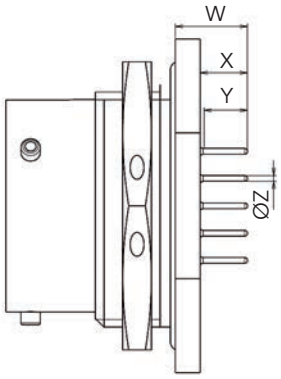
## Contact variations




**Type IH:** Solder mount receptacle




**Type 02H:** Square flange receptacle




**Type 07H:** Jam nut receptacle

| Type of contact | Specification | Shell type | Contact size | W Max | X Min | Y Min | Ø Z Max |
|---|---|---|---|---|---|---|---|
| Short PCB contact | 005 | IH | 20 | 9.1 | 4.55 | 4.5 | 0.65 |
| | | 02H | 20 | 8.4 | 3.35 | 4.5 | 0.65 |
| | | 07H | 20 | 8.05 | 3.75 | 4.5 | 0.65 |
| Long PCB contact | 275 | IH | 20 | 13.87 | 8.5 | 6 | 0.65 |
| | | 02H | 20 | 12.9 | 7.3 | 6 | 0.65 |
| | | 07H | 20 | 12 | 7.7 | 6 | 0.65 |

Note: All dimensions are in millimeters (mm)

# Gaskets

| Shell size | Gasket for receptacle Type 0 | | O ring for receptacle Type 7 | |
|---|---|---|---|---|
| | Part number | Material | Part number | Material |
| 08 | 85251431 | Fluoro silicone | AS3582-016 | Silicone |
| 10 | 85251432 | Fluoro silicone | AS3582-018 | Silicone |
| 12 | 85251433 | Fluoro silicone | AS3582-021 | Silicone |
| 14 | 85251434 | Fluoro silicone | AS3582-023 | Silicone |
| 16 | 85251435 | Fluoro silicone | AS3582-025 | Silicone |
| 18 | 85251436 | Fluoro silicone | AS3582-027 | Silicone |
| 20 | 85251437 | Fluoro silicone | AS3582-029 | Silicone |
| 22 | 85251438 | Fluoro silicone | AS3582-030 | Silicone |
| 24 | 85251439 | Fluoro silicone | AS3582-031 | Silicone |

For further information contact us at technical.emear@souriau.com (Europe - Asia - Africa)
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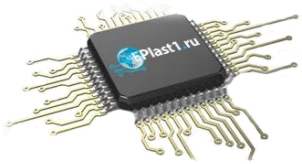
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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