

# AnTech®



## Type-C Wellhead Outlets, Electrical

### AnTech's range of cost-effective solutions for terminating electrical cables at the wellhead

The four Type-C Wellhead Outlets created by AnTech are designed specifically for use by clients requiring safe, effective solutions at the minimum cost. The Type-C Wellhead Outlet provides an outlet for electrical cable while controlling up to 15,000 psi of well pressure.

AnTech's Type-C Wellhead Outlets use highly reliable metal-to-metal seals and threaded wellhead connections to maintain a barrier to well pressure at all times. All models have been designed in compliance with API 6A and NACE.

The Type-C outlets are designed for use in hazardous areas and models are available with ATEX/IECEX certification, US NEC 500/505 certification or without certification depending on the customer's requirements.

All Type-C WHO's are quick and simple to install and require minimal connections to be made up. The user simply swages onto the line, makes up the relevant crimp connections and secures the cable gland and housing.

Models are available for single, dual and triple conductors and can be supplied in 1/8" and 1/4" configurations for either Incoloy or Stainless Steel downhole cable to suit 0.5", 1.0" and 1.5" NPT fittings or 1.0" Autoclave connections.

Multiple additional options can be requested e.g. fire rating, API6A PSL 3G or API6A PR2 rating.



### Features & Benefits

- Extremely cost-effective solution for safe, permanent monitoring
- High pressure ratings available
- Designed for hazardous areas
- Simple and easy installation
- Ability to pressure test upon installation
- Multiple additional engineering options as requested.



*For information on our Type-X range please visit our website*

**AnTech®**

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## Technical Specifications for our Type-C Wellhead Outlet Range

| Product                                    |                       | Type - CA  | Type - CB   | Type - CC                                    | Type - CD  | Type - CF  | Type - CG  |  |
|--|-----------------------|--|---|--|--|--|--|--|
| Key Features                               |                       | Ex certified, glass to metal secondary barrier, 160°C max temp | Ex certified, elastomeric secondary barrier, 100°C max temp | Non-Ex, no secondary barrier, 160°C max temp | Class 1 Div 1, glass to metal seal, 85°C max temp                              | Ex certified, elastomeric secondary barrier, customer supplied gland, 100°C max temp | Non-Ex, elastomeric secondary barrier, no test port, customer supplied gland, 100°C max temp |  |
| Connection type & pressure rating*         | 0.5" NPT              | 10,000 psi / 69.0 MPa  | 10,000 psi / 69.0 MPa                                       | 10,000 psi / 69.0 MPa                        | 10,000 psi / 69.0 MPa  | 10,000 psi / 69.0 MPa  | 10,000 psi / 69.0 MPa  |  |
|  | 1.0" NPT              | 5,000 psi / 34.5 MPa   | 5,000 psi / 34.5 MPa  | 5,000 psi / 34.5 MPa                         | 5,000 psi / 34.5 MPa   | 5,000 psi / 34.5 MPa   | 5,000 psi / 34.5 MPa   |  |
|  | 1.5" NPT              | 5,000 psi / 34.5 MPa   | 5,000 psi / 34.5 MPa  | 5,000 psi / 34.5 MPa                         | 5,000 psi / 34.5 MPa   | 5,000 psi / 34.5 MPa   | 5,000 psi / 34.5 MPa   |  |
|  | 1" Autoclave          | 15,000 psi / 103 MPa   | 15,000 psi / 103 MPa  | 15,000 psi / 103 MPa                         | 15,000 psi / 103 MPa   | 15,000 psi / 103 MPa   | 15,000 psi / 103 MPa   |  |
| API6A/ISO10423 Rating                      |                       | -60°C ≤ T ≤ 160°C FF-NL PSL 3                                  | -20°C ≤ T ≤ 100°C FF-NL PSL 3                               | -60°C ≤ T ≤ 160°C FF-NL PSL 3                | -20°C ≤ T ≤ 85°C FF-NL PSL 3   | -20°C ≤ T ≤ 100°C FF-NL PSL 3  | -20°C ≤ T ≤ 100°C FF-NL PSL 3  |  |
| ATEX/IECEX Rating                          |                       | Ex db IIC T3 Gb  | Ex db IIC T3 Gb   | N/A  | N/A  | Ex db IIC T3 Gb  | N/A  |  |
| US NEC 500/505 Rating                      |                       | N/A  | N/A   | N/A  | Explosion Proof for Class 1 Div 1, Groups ABCD T3, Class 1 Zone 1 Group IIC T3 | N/A  | N/A  |  |
| Ambient Temperature                        | °C                    | -60 °C to +160 °C  | -20 °C to +100 °C   | -60°C to +160°C                              | -20 °C to +85 °C   | -20 °C to +100 °C  | -20 °C to +100 °C  |  |
|  | °F                    | -76 °F to +320 °F  | -4 °F to +212 °F  | -76°F to +320°F                              | -4 °F to +185 °F   | -4 °F to +212 °F   | -4 °F to +212 °F   |  |
| Primary barrier method                     |                       | Metal to metal seal  | Metal to metal seal   | Metal to metal seal                          | Metal to metal seal  | Metal to metal seal  | Metal to metal seal  |  |
| Secondary barrier method                   |                       | Glass to metal   | Polymer   | No secondary barrier                         | Glass to metal   | Polymer  | Polymer  |  |
| Compatible lines                           | Diameter              | 1/8", 1/4" or 4mm  | 1/8", 1/4" or 4mm   | 1/8", 1/4" or 4mm                            | 1/4"   | 1/8", 1/4" or 4mm  | 1/8", 1/4" or 4mm  |  |
|  | Material              | Stainless Steel / Incoloy                                      | Stainless Steel / Incoloy                                   | Stainless Steel / Incoloy                    | Stainless Steel / Incoloy  | Stainless Steel / Incoloy  | Stainless Steel / Incoloy  |  |
| Number of barriers                         |                       | 2  | 2   | 1  | 2  | 2  | 2  |  |
| Max. current                               | Single/Dual conductor | 5A   | 5A Single only  | 5A Single only                               | 1A - Dual only   | 5A Single only   | 5A Single only   |  |
|  | Triple conductor      | 3A   | N/A   | N/A  | N/A  | N/A  | N/A  |  |
| Max. peak voltage                          |                       | 450V   | 275V  | 450V   | 150 V AC/DC  | 275V   | 275V   |  |
| Ingress protection                         |                       | IP68   | IP68  | IP68   | NEMA Type 4  | IP68   | IP68   |  |
| Ability to pressure test upon installation |                       | Yes  | Primary Barrier Only  | Primary Barrier Only                         | Yes  | Primary Barrier Only   | No   |  |
| Sour Service**                             |                       | As standard  |   |  |  |  |  |  |
| CO2 Service                                |                       | If requested   |   |  |  |  |  |  |
| Acid Service                               |                       | If requested   |   |  |  |  |  |  |
| Approximate Dimensions                     | Length                | 278 mm / 10.945 in   | 278 mm / 10.945 in  | 278 mm / 10.945 in                           | 397 mm / 15.627 in   | 278 mm / 10.945 in   | 278 mm / 10.945 in   |  |
|  | Diameter              | 48 mm / 1.866 in   | 48 mm / 1.866 in  | 48 mm / 1.866 in                             | 81 mm / 3.193 in   | 48 mm / 1.866 in   | 48 mm / 1.866 in   |  |

\*Customer line type dependent, \*\*In compliance with NACE MR 00175/ISO 15156