Type H - Hybrid Wellhead Outlets

Ensuring safe and reliable operations in permanent completions all around the world

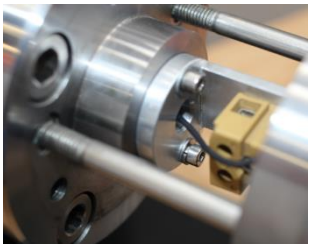
A safe and reliable electro-mechanical and fibre optic device, designed for use in hazardous areas to connect downhole control lines to surface cable. The Type H solution is straightforward to install and designed specifically to meet individual customer requirements.

AnTech's Hybrid Wellhead Outlets combine our ATEX/IECEx certified electrical units (Type C or Type X) with our fibre Type F units. The integrated flange design provides a means of connecting the electrical cable to surface cable in Zone 1 hazardous areas, combined with an innovative fibre optic outlet for safe handling of fragile fibre.

The Type H Outlets use reliable metal-to-metal seals, flanged & bolted 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/MR0175 and the tried and tested design methodology has been installed and used successfully on over 1000 wells around the world for permanent completions. The main components have a standard design for the majority of configurations, with the flange design depending on the wellhead connection.

The range allows for the many variations of electrical and fibre cables, wellhead connections and hazardous area requirements.



Low cost solutions can be achieved with the combination of our electrical Type CA/CB and fibre optic Type FC.

Features and Benefits

- Meets the highest level of industry safety standards for hazardous areas
- Bespoke solutions
- High pressure ratings available up to 15ksi
- Simple and easy installation
- Ability to pressure test upon installation
- Multiple additional engineering options as requested
- Cost effective options

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Technical Specifications for our Type H Wellhead Outlet Range

Product		Type - HA	Type - HB	Type - HC
Connection Type		As per customer requirements		
Working Pressure	Psi / MPa	15,000 psi / 103.0 MPa		
API6A/ISO10423 Rating		-20°C ≤ T ≤ 150°C FF-NL PSL 3 Other options available: PR2 and PSL 3G	-20°C ≤ T ≤ 150°C FF-NL PSL 3 Other options available: PR2 and PSL 3G	-20°C ≤ T ≤ 100°C FF-NL PSL 3 Other options available: PR2 and PSL 3G
ATEX/IECEx Rating (For electrical outlet only)		Ex e IIC T3 Gb	Ex e IIC T3 Gb	Ex db IIC T3 Gb
Fire Tested API 6FB (Offshore)		No	Yes	No
Ambient Temperature	°C	-20 °C to +150 °C	-20 °C to +150 °C	-20 °C to +100 °C
	°F	4 °F to +302 °F	4 °F to +302 °F	-4 °F to +212 °F
Primary barrier method		Metal to metal seal	Metal to metal seal	Metal to metal seal
Secondary barrier method (Elec/Fibre)		Glass to metal/Metal to epoxy	Glass to metal/Metal to epoxy	Glass to metal/Metal to epoxy
Compatible lines	Diameter	1/8", 1/4" or 4mm	1/8", 1/4" or 4mm	1/8", 1/4" or 4mm
	Material	Stainless Steel / Incoloy	Stainless Steel / Incoloy	Stainless Steel / Incoloy
Number of barriers		2	2	2
Max. current	Single/Dual conductor	3A	3A	5A Single only
	Triple conductor	3A	3A	N/A
Max. peak voltage		275V (up to 440V†)	275V (up to 440V†)	450V
Ingress protection		IP54 Min	IP54 Min	IP68
Ability to pressure test upon installation		Yes	Yes	Yes
Sour Service**		As standard		
CO2 Service		As per customer requirements		
Acid Service		As per customer requirements		
Approximate Dimensions	Length mm/in	735/29	735/29	686/27
	Diameter mm/in	367/14.5	367/14.5	392/15.5

*Customer line type dependent, **In compliance with NACE MR 00175/ISO 15156, † Dependent on ATEX temperature range requirements