

37-104 Gexol® - 331HF Fire Resistant Shielded Pairs Instrumentation Cable Low Smoke Halogen-Free

Extremely Flexible • 0.6/1kV • Rated 110°C

Pairs

Each pair is twisted with a bare tinned drain wire. Each pair is shielded with polyester-backed aluminum foil tape to afford 100% coverage. Pair-to-pair isolation plus overall shield is provided.

Pair color code:

Black-White

Armor (Optional)

Basket weave wire armor per IEEE 1580 and UL 1309/CSA 245. Bronze standard. Aluminum or tinned copper available by request.

Sheath (Optional)

A black low smoke Halogen-Free flame retardant polyolefin, meeting IEEE 1580 and UL 1309/CSA 245.



Conductor

Soft annealed flexible stranded tinned copper per IEEE 1580 Table 11.

Insulation

Fire resistant tape + GEXOL®-HF low smoke Halogen-Free flame retardant cross-linked polyolefin, meeting the requirements for Type LSX of IEEE 1580 and Type X110 of UL 1309/CSA 245.

Jacket

A black low smoke Halogen-Free flame retardant polyolefin, meeting IEEE 1580 and UL 1309/CSA 245.

Cable available with blue stripe to signify intrinsically safe circuit.

Application

Designed and constructed for the demanding environments of offshore drilling and petroleum facilities located throughout the world. Primarily used on critical circuits that must continue to function even in fire condition. This product should be used on any circuit dedicated to emergency lighting, fire detection/suppression, alarms and personnel egress.

Features

- Fire resistant: IEC 60331.
- Flame retardant: IEC 332-3 Category A and IEEE 1202.
- Low smoke and Halogen-Free.
- High strand count conductors make this product more flexible and easier to install than IEC 60092-350 Series cables.
- Higher temperature rating results in higher ampacity ratings.
- Severe cold durability: exceeds CSA cold bend/cold impact (-40°C/-35°C).
- Suitable for use in Class I, Division 1 and Zone 1 environments (armored and sheathed).
- Optional braid armor of bronze, aluminum or tinned copper.

Ratings & Approvals

- 110°C Temperature Rating
- American Bureau of Shipping (ABS) 99-BT5905-X
- UL Listed as Marine Shipboard Cable (E111461)
- Transport Canada (pending)
- Det Norske Veritas (DNV) (pending)
- Lloyd's Register of Shipping (LRS) (pending)

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Hawke Gland Types	Unarmored	Armored & Sheathed
Industrial & Safe Area (IP68)	121	153-X
Increased Safety "EExe"	501/421	501/453/U
Explosion Proof	710 Class I, Div. 2 Class I, Zone 2	753 Class I, Div. 1 Class I, Zone 1 & 2
Flameproof "EExd"	501/421 Zone 1 & 2	501/453/U (2 liter or < enclosures) ICG 653/U (2 liter or > enclosures) Zone 1 & 2

Flexible Instrumentation Cable – Individually Shielded Pairs

Size AWG	mm ²	Number of Pairs	Part No. 37-104	Unarmored		Armored (B)		Armored and Sheath (BS)	
				Nominal Diameter (inches)	Weight (lbs/MFt.)	Nominal Diameter (inches)	Weight (lbs/MFt.)	Nominal Diameter (inches)	Weight (lbs/MFt.)
18	1.0	1	-601	0.408	102	0.458	173	0.597	254
18	1.0	2	-602	0.639	211	0.689	312	0.828	416
18	1.0	3	-603	0.661	231	0.711	338	0.915	485
18	1.0	4	-604	0.726	273	0.776	392	0.960	550
18	1.0	5	-605	0.801	294	0.851	478	1.032	618
18	1.0	7	-606	0.870	411	0.920	553	1.101	696
18	1.0	8	-607	0.940	484	0.990	641	1.171	841
18	1.0	10	-608	1.144	599	1.194	846	1.375	1057
18	1.0	12	-609	1.185	700	1.235	893	1.416	1134
18	1.0	16	-645	1.317	905	1.367	1008	1.548	1430
18	1.0	18	-641	1.389	997	1.439	1270	1.620	1573
18	1.0	24	-646	1.630	1433	1.680	1713	1.924	2156
16	1.3	1	-610	0.436	91	0.486	158	0.625	235
16	1.3	2	-611	0.634	236	0.689	339	0.871	484
16	1.3	3	-612	0.711	299	0.761	416	0.942	580
16	1.3	4	-613	0.776	312	0.826	433	1.007	597
16	1.3	5	-614	0.871	345	0.921	560	1.102	706
16	1.3	7	-615	0.920	482	0.970	648	1.151	815
16	1.3	8	-616	1.036	640	1.086	816	1.267	1039
16	1.3	10	-617	1.215	703	1.265	913	1.446	1274
16	1.3	12	-618	1.255	825	1.305	1071	1.486	1320
16	1.3	16	-619	1.403	1100	1.453	1428	1.634	1760
16	1.3	18	-626	1.473	1276	1.523	1462	1.766	1821
16	1.3	20	-688	1.547	1409	1.597	1712	1.840	2197
16	1.3	24	-699	1.730	1433	1.780	1713	2.023	2156
14	2.1	1	-620	0.458	112	0.508	175	0.646	255
14	2.1	2	-621	0.709	234	0.759	365	0.940	558
14	2.1	3	-622	0.752	291	0.802	454	0.983	597
14	2.1	4	-623	0.826	349	0.876	544	1.057	734
14	2.1	5	-624	0.907	434	0.957	705	1.137	913
14	2.1	7	-625	1.033	608	1.083	817	1.264	1028
14	2.1	8	-630	1.119	578	1.169	931	1.350	1173
14	2.1	10	-627	1.316	867	1.366	1163	1.547	1387
14	2.1	12	-628	1.360	1039	1.410	1395	1.591	1663

#18 Pairs
Capacitance = 22 nF/1000 ft.
Inductance = 0.12 mH/1000 ft.
Resistance = 7.21 ohms/1000 ft.

#16 Pairs
Capacitance = 22 nF/1000 ft.
Inductance = 0.11 mH/1000 ft.
Resistance = 4.52 ohms/1000 ft.

#14 Pairs
Capacitance = 25 nF/1000 ft.
Inductance = 0.11 mH/1000 ft.
Resistance = 2.85 ohms/1000 ft.

Cable diameters shown as nominal are subject to a ±5% manufacturing tolerance

Ordering Gexol-331HF Cables

Example:

- Instrumentation cable
- 0.6/1kV
- #14 AWG, 1 Pair
- bronze armored & sheathed

37-104 - 620

BS

AmerCable
Gexol-331HF Prefix

Specific Cable Number
(from table)

Armor Requirement
BS – armored &
sheathed
Blank – no armor