

# Gexol® -HF Flame Retardant 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

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

Smoke, with its toxic and corrosive effects, is becoming more clearly recognized as the real culprit in fire fatalities. And there is increasing concern about smoke evolution in confined spaces or areas of limited egress. Low smoke, Halogen-Free, Gexol-HF should be used in the living quarters area to insure safe egress of personnel during a fire. Gexol-HF does not produce corrosive gases during a fire that might damage expensive electronic equipment, making it ideal for use in control rooms that house this equipment.

## Features

- 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 <sup>2</sup>	Number of Pairs	Part No. 37-103	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	0.360	63	0.410	123	0.549	176
18	1.0	2	-602	0.551	131	0.601	204	0.740	335
18	1.0	3	-603	0.581	163	0.631	265	0.770	343
18	1.0	4	-604	0.630	195	0.680	317	0.809	410
18	1.0	5	-605	0.685	243	0.735	395	0.908	511
18	1.0	7	-606	0.742	340	0.792	457	0.965	575
18	1.0	8	-607	0.800	388	0.850	521	1.023	752
18	1.0	10	-608	0.976	495	1.026	699	1.207	874
18	1.0	12	-609	1.011	581	1.061	780	1.242	982
18	1.0	16	-645	1.121	748	1.171	833	1.352	1182
18	1.0	18	-641	1.181	824	1.231	1050	1.412	1300
18	1.0	24	-646	1.382	1069	1.432	1151	1.613	1720
16	1.3	1	-610	0.388	77	0.438	120	0.577	203
16	1.3	2	-611	0.565	160	0.615	249	0.759	377
16	1.3	3	-612	0.617	200	0.667	311	0.793	410
16	1.3	4	-613	0.671	239	0.721	389	0.894	569
16	1.3	5	-614	0.730	297	0.780	483	0.953	609
16	1.3	7	-615	0.792	416	0.842	559	1.015	703
16	1.3	8	-616	0.896	475	0.946	638	1.127	803
16	1.3	10	-617	1.047	606	1.097	787	1.278	1098
16	1.3	12	-618	1.081	711	1.131	923	1.312	1138
16	1.3	16	-619	1.207	948	1.257	1231	1.430	1517
16	1.3	18	-626	1.265	1100	1.315	1260	1.496	1570
16	1.3	20	-688	1.327	1215	1.377	1476	1.560	1894
16	1.3	24	-699	1.482	1510	1.532	1625	1.775	2065
14	2.1	1	-620	0.410	97	0.460	151	0.598	199
14	2.1	2	-621	0.621	202	0.671	315	0.810	481
14	2.1	3	-622	0.658	251	0.708	391	0.889	515
14	2.1	4	-623	0.721	301	0.771	469	0.952	633
14	2.1	5	-624	0.791	374	0.841	608	1.021	787
14	2.1	7	-625	0.905	524	0.955	704	1.136	886
14	2.1	8	-629	0.979	498	1.029	803	1.210	1011
14	2.1	10	-627	1.148	747	1.198	1003	1.379	1196
14	2.1	12	-628	1.186	896	1.236	1203	1.417	1434

**#18 Pairs**  
Capacitance = 33 nF/1000 ft.  
Inductance = 0.22 mH/1000 ft.  
Resistance = 7.21 ohms/1000 ft.

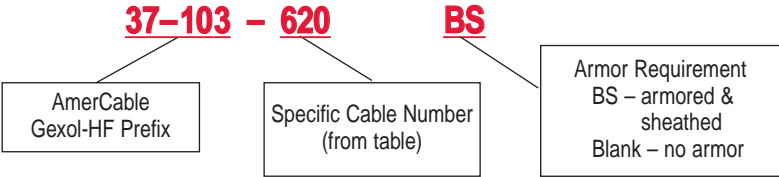
**#16 Pairs**  
Capacitance = 37 nF/1000 ft.  
Inductance = 0.20 mH/1000 ft.  
Resistance = 4.52 ohms/1000 ft.

**#14 Pairs**  
Capacitance = 43 nF/1000 ft.  
Inductance = 0.19 mH/1000 ft.  
Resistance = 2.85 ohms/1000 ft.

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

**Ordering Gexol-HF Cables**

- Example:
- Instrumentation cable
  - 0.6/1kV
  - #14 AWG, 1 pair
  - bronze armored & sheathed



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