

SHIELDED TRIADS INSTRUMENTATION CABLE – GEXOL® INSULATED

Extremely Flexible • Individually Shielded Triads • 0.6/1kV • Rated 110°C

Insulation

GEXOL® cross-linked, flame retardant polyolefin, meeting the requirements for Type P of IEEE 1580 and Type X110 of UL 1309/CSA 245.

Conductor

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

Triads

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

Triad Color code:
Black-White-Red

Jacket

A black, arctic grade, flame retardant, oil, abrasion, chemical and sunlight resistant thermosetting compound meeting UL 1309/CSA 245 and IEEE 1580.

Armor (Optional)

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

Sheath (Optional)

A black, arctic grade, flame retardant, oil, abrasion, chemical and sunlight resistant thermosetting compound meeting UL 1309/CSA 245 and IEEE 1580.



Cable available with blue jacket or stripe to signify intrinsically safe circuit.

APPLICATION

Designed and constructed for the demanding environments of offshore drilling and petroleum facilities located throughout the world.

FEATURES

- High strand count conductors make this product much more flexible, easier to install and more resistant to vibration than Type MC, IEC spec or commercial cables.
- Gexol’s lower dielectric constant and higher insulation resistance reduces electrical losses.
- Gexol’s excellent resistance to moisture produces stable electrical properties throughout the life of the cable.
- In a fire condition, Gexol’s nonchlorinated flame retardant system produces less toxic and less corrosive gases.
- Dual certified IEEE 1580 Type P and UL 1309/CSA 245 Type X110.
- Highest ampacity ratings: ABS 100°C, DNV 95°C, LRS 95°C, Transport Canada 95°C.
- Severe cold durability: exceeds CSA cold bend/cold impact (-40°C/-35°C).
- Flame retardant: IEC 332-3 Category A and IEEE 1202.
- Suitable for use in Class I, Division 1, and Zone 1 environments (armored and sheathed).
- Optional braid armor of bronze or tinned copper.

Ratings & Approvals (Other certifications pending)

- 110°C Temperature Rating
- American Bureau of Shipping (ABS)
- Transport Canada
- Det Norske Veritas (DNV)
- Lloyd’s Register of Shipping (LRS)
- NVE 95/1696, FAL
- UL Listed as Marine Shipboard Cable (E111461)
- United States Coast Guard November 2, 1987 / 9304
- CSA listed as Marine Shipboard Cable

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 TRIADS

Size AWG	Number of Triads	Part No. 37-102	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	-647	0.354	69	0.404	160	0.557	167
18	2	-681	0.649	204	0.702	303	0.876	430
18	3	-648	0.703	236	0.753	345	0.927	477
18	4	-682	0.775	316	0.825	398	0.975	594
18	5	-649	0.889	353	0.939	497	1.113	658
18	7	-650	0.957	461	1.007	614	1.202	785
18	8	-683	1.025	589	1.075	735	1.140	900
18	12	-640	1.221	792	1.271	990	1.642	1195
16	1	-668	0.376	81	0.426	206	0.579	265
16	3	-669	0.760	366	0.810	411	1.018	571
16	4	-698	0.820	410	0.870	457	1.001	646
16	6	-676	0.950	628	1.000	791	1.198	1024
16	7	-670	1.029	524	1.079	688	1.248	1026
16	8	-677	1.108	684	1.158	793	1.312	1101

See page 29 for Stranding Profile

Cable diameters shown as nominal are subject to a $\pm 5\%$ manufacturing tolerance

VALUES:

#18 Triads

Capacitance – (nF/1000 feet) = 28

Inductance – (mH/1000) = 0.22

Resistance – (Ohms/1000 feet) = 7.21 (@ 20°C)

#16 Triads

Capacitance – (nF/1000 feet) = 32

Inductance – (mH/1000) = 0.20

Resistance – (Ohms/1000 feet) = 4.52 (@ 20°C)



Ordering Gexol Oil & Gas Cables

Example:

- Instrumentation cable
- 0.6/1kV
- #18 AWG
- bronze armored & sheathed

Nexans AmerCable
Gexol Oil & Gas
Prefix

37-102 - 682

Specific Cable
Number
(from charts)

BS

Armor Requirement
BS – armored &
sheathed
Blank – no armor

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