

BFOU (i) 250V Instrumentation Cable – SHF2

Fire Resistant • Individual Screen • Halogen-Free • Rated 90°C

Pairs/Triads

Each pair/triad is twisted with a bare tinned drainwire and shielded with a poly/aluminum tape to provide 100% coverage

Core Identification:

Pair: Black - Light Blue
Triad: Black - Light Blue - Brown

Armor

Basket weave tinned copper wire armor per IEC 60092-353

Outer Sheath

Low smoke halogen-free flame retardant compound meeting IEC 60092-359 Type SHF-2.

Standard sheath color is gray. Blue sheath is available for intrinsically safe installations.



Conductor

Flexible Class 5 tinned copper per IEC 60228

Insulation

Fire resistant tape and low smoke halogen-free EP meeting IEC 60092-351

Hawke Gland Types See Page 1

Bedding

Low smoke halogen-free polyolefin bedding meeting IEC 60092-353

Application

Designed for instrumentation, communication and public address/general alarm systems in EX or safe areas.

Features

- Meets IEC 60092-350, IEC 60092-351, IEC 60092-353 AND IEC 60092-359
- Fire resistant: IEC 60331
- Flame retardant: IEC 60332-3 Cat A
- Low smoke: IEC 61034-2
- Acidity: IEC 60754-2
- Halogen-free: 60754-1
- Flexibility: High strand count Class 5 (metric) conductors make this product more flexible and easier to install than standard IEC 60092-350 Series cables that use Class 2 conductors.

Ratings & Approvals

- 90°C Temperature Rating
- American Bureau of Shipping (ABS) BT367739
- Det Norske Veritas (DNV)
- Lloyd's Register of Shipping (LRS) (pending)

Stranding Profile
See Page 1

Size mm2	SHF2 Part No.*	Diameter Over Ins. (in)	Diameter Over Ins. (mm)	Diameter Over Bedding (in)	Diameter Over Bedding (mm)	Overall Cable Diameter (in)	Overall Cable Diameter (mm)	Cable Weight (lbs/kt)	Cable Weight (kg/km)
1 x 2 x 0.75	3414230102GR	0.109	2.77	0.312	7.92	0.462	11.73	148	220
2 x 2 x 0.75	3414230202GR	0.109	2.77	0.473	12.01	0.635	16.13	288	429
4 x 2 x 0.75	3414230402GR	0.109	2.77	0.552	14.02	0.735	18.67	397	591
7 x 2 x 0.75	3414230702GR	0.109	2.77	0.667	16.94	0.861	21.87	541	805
8 x 2 x 0.75	3414230802GR	0.109	2.77	0.724	18.39	0.922	23.42	604	899
12 x 2 x 0.75	3414231202GR	0.109	2.77	0.888	22.56	1.103	28.02	849	1263
16 x 2 x 0.75	3414231602GR	0.109	2.77	0.986	25.04	1.184	30.07	927	1379
19 x 2 x 0.75	3414231902GR	0.109	2.77	1.053	26.75	1.283	32.59	1143	1701
24 x 2 x 0.75	3414232402GR	0.109	2.77	1.294	32.87	1.537	39.04	1327	1974
32 x 2 x 0.75	3414233202GR	0.109	2.77	1.385	35.18	1.610	40.89	1620	2410
1 x 2 x 1.0	3414230103GR	0.114	2.90	0.322	8.18	0.472	11.99	160	238
2 x 2 x 1.0	3414230203GR	0.114	2.90	0.487	12.37	0.654	16.61	325	484
4 x 2 x 1.0	3414230403GR	0.114	2.90	0.570	14.48	0.743	18.87	406	604
7 x 2 x 1.0	3414230703GR	0.114	2.90	0.687	17.45	0.866	22.00	547	814
8 x 2 x 1.0	3414230803GR	0.114	2.90	0.747	18.97	0.932	23.67	611	909
12 x 2 x 1.0	3414231203GR	0.114	2.90	0.920	23.37	1.116	28.35	861	1281
16 x 2 x 1.0	3414231603GR	0.114	2.90	1.023	25.98	1.225	31.12	943	1403
19 x 2 x 1.0	3414231903GR	0.114	2.90	1.104	28.04	1.323	33.60	1198	1782
24 x 2 x 1.0	3414232403GR	0.114	2.90	1.313	33.35	1.534	38.96	1407	2093
32 x 2 x 1.0	3414233203GR	0.114	2.90	1.462	37.13	1.761	44.73	1865	2775

* Gray sheath is standard. For Blue sheath, put "BL" at end of Part Number (example: 3414230102BL)

SHF2 BFOU (i) 250V Instrumentation Cable



See page 1 for Ampacity Ratings, Bend Radius, Stranding Profile and Hawke Gland Types.

Oil & Gas Cables

0.75 mm² Pairs or Triads
 Capacitance = 83 nF/km
 Inductance = 0.80 mH/km
 Resistance = 26.7 ohms/km

1.0 mm² Pairs or Triads
 Capacitance = 94 nF/km
 Inductance = 0.75 mH/km
 Resistance = 20.0 ohms/km

1.5 mm² Pairs or Triads
 Capacitance = 98 nF/km
 Inductance = 0.74 mH/km
 Resistance = 13.7 ohms/km

2.5 mm² Pairs or Triads
 Capacitance = 117 nF/km
 Inductance = 0.67 mH/km
 Resistance = 8.21 ohms/km

Size mm ²	SHF2 Part No.*	Diameter Over Ins. (in)	Diameter Over Ins. (mm)	Diameter Over Bedding (in)	Diameter Over Bedding (mm)	Overall Cable Diameter (in)	Overall Cable Diameter (mm)	Cable Weight (lbs/kt)	Cable Weight (kg/km)
1 x 2 x 1.5	3414230104GR	0.131	3.33	0.354	8.99	0.507	12.88	172	256
2 x 2 x 1.5	3414230204GR	0.131	3.33	0.543	13.79	0.715	18.16	367	546
4 x 2 x 1.5	3414230404GR	0.131	3.33	0.638	16.21	0.816	20.73	477	710
7 x 2 x 1.5	3414230704GR	0.131	3.33	0.825	20.96	1.014	25.76	759	1129
8 x 2 x 1.5	3414230804GR	0.131	3.33	0.891	22.63	1.099	27.91	857	1275
12 x 2 x 1.5	3414231204GR	0.131	3.33	1.034	26.26	1.242	31.55	1016	1512
16 x 2 x 1.5	3414231604GR	0.131	3.33	1.259	31.98	1.375	34.93	1223	1820
19 x 2 x 1.5	3414231904GR	0.131	3.33	1.285	32.64	1.504	38.20	1532	2279
24 x 2 x 1.5	3414232404GR	0.131	3.33	1.483	37.67	1.737	44.12	2035	3028
32 x 2 x 1.5	3414233204GR	0.131	3.33	1.646	41.81	1.907	48.44	2487	3700
1 x 2 x 2.5	3414230105GR	0.153	3.89	0.392	9.96	0.557	14.15	210	312
2 x 2 x 2.5	3414230205GR	0.153	3.89	0.619	15.72	0.806	20.47	529	787
4 x 2 x 2.5	3414230405GR	0.153	3.89	0.716	18.19	0.901	22.89	591	879
7 x 2 x 2.5	3414230705GR	0.153	3.89	0.939	23.85	1.135	28.83	987	1469
8 x 2 x 2.5	3414230805GR	0.153	3.89	1.003	25.48	1.207	30.66	1135	1689
12 x 2 x 2.5	3414231205GR	0.153	3.89	1.169	29.69	1.386	35.20	1301	1936
16 x 2 x 2.5	3414231605GR	0.153	3.89	1.353	34.37	1.582	40.18	1847	2748
19 x 2 x 2.5	3414231905GR	0.153	3.89	1.504	38.20	1.753	44.53	2199	3272
24 x 2 x 2.5	3414232405GR	0.153	3.89	1.714	43.54	2.007	50.98	2786	4145
32 x 2 x 2.5	3414233205GR	0.153	3.89	1.902	48.31	2.180	55.37	3203	4766
1 x 3 x 0.75	3414270102GR	0.109	2.77	0.327	8.31	0.479	12.17	151	225
2 x 3 x 0.75	3414270202GR	0.109	2.77	0.568	14.43	0.736	18.69	336	500
4 x 3 x 0.75	3414270402GR	0.109	2.77	0.668	16.97	0.842	21.39	464	690
7 x 3 x 0.75	3414270702GR	0.109	2.77	0.809	20.55	0.991	25.17	637	948
8 x 3 x 0.75	3414270802GR	0.109	2.77	0.885	22.48	1.074	27.28	773	1150
12 x 3 x 0.75	3414271202GR	0.109	2.77	1.086	27.58	1.286	32.66	1018	1515
16 x 3 x 0.75	3414271602GR	0.109	2.77	1.235	31.37	1.454	36.93	1302	1937
19 x 3 x 0.75	3414271902GR	0.109	2.77	1.306	33.17	1.529	38.84	1423	2117
24 x 3 x 0.75	3414272402GR	0.109	2.77	1.606	40.79	1.833	46.56	1723	2564
32 x 3 x 0.75	3414273202GR	0.109	2.77	1.732	43.99	1.983	50.37	2353	3501
1 x 3 x 1.0	3414270103GR	0.114	3.51	0.338	8.59	0.492	12.50	175	260
2 x 3 x 1.0	3414270203GR	0.114	3.51	0.595	15.11	0.765	19.43	387	576
4 x 3 x 1.0	3414270403GR	0.114	3.51	0.706	17.93	0.883	22.43	509	757
7 x 3 x 1.0	3414270703GR	0.114	3.51	0.856	21.74	1.041	26.44	700	1042
8 x 3 x 1.0	3414270803GR	0.114	3.51	0.933	23.70	1.124	28.55	802	1193
12 x 3 x 1.0	3414271203GR	0.114	3.51	1.153	29.29	1.356	34.44	1063	1582
16 x 3 x 1.0	3414271603GR	0.114	3.51	1.293	32.84	1.505	38.23	1347	2004
19 x 3 x 1.0	3414271903GR	0.114	3.51	1.369	34.77	1.585	40.26	1502	2235
24 x 3 x 1.0	3414272403GR	0.114	3.51	1.669	42.39	1.917	48.69	1985	2953
32 x 3 x 1.0	3414273203GR	0.114	3.51	1.822	46.28	2.081	52.86	2537	3775
1 x 3 x 1.5	3414270104GR	0.131	3.33	0.375	9.53	0.530	13.46	210	312
2 x 3 x 1.5	3414270204GR	0.131	3.33	0.675	17.15	0.852	21.64	468	696
4 x 3 x 1.5	3414270404GR	0.131	3.33	0.497	12.62	0.977	24.82	631	939
7 x 3 x 1.5	3414270704GR	0.131	3.33	0.969	24.61	1.164	29.57	901	1341
8 x 3 x 1.5	3414270804GR	0.131	3.33	1.063	27.00	1.267	32.18	1012	1506
12 x 3 x 1.5	3414271204GR	0.131	3.33	1.325	33.66	1.546	39.27	1392	2071
16 x 3 x 1.5	3414271604GR	0.131	3.33	1.473	37.41	1.702	43.23	1601	2382
19 x 3 x 1.5	3414271904GR	0.131	3.33	1.590	40.39	1.839	46.71	2063	3070
24 x 3 x 1.5	3414272404GR	0.131	3.33	1.900	48.26	2.164	54.97	2498	3717
32 x 3 x 1.5	3414273204GR	0.131	3.33	2.107	53.52	2.385	60.58	3108	4624
1 x 3 x 2.5	3414270105GR	0.153	3.89	0.380	9.65	0.548	13.92	221	329
2 x 3 x 2.5	3414270205GR	0.153	3.89	0.727	18.47	0.908	23.06	572	851
4 x 3 x 2.5	3414270405GR	0.153	3.89	0.895	22.73	1.086	27.58	788	1172
7 x 3 x 2.5	3414270705GR	0.153	3.89	1.108	28.14	1.311	33.30	1193	1775
8 x 3 x 2.5	3414270805GR	0.153	3.89	1.209	30.71	1.423	36.14	1368	2035
12 x 3 x 2.5	3414271205GR	0.153	3.89	1.494	37.95	1.723	43.76	1798	2675
16 x 3 x 2.5	3414271605GR	0.153	3.89	1.718	43.64	1.975	50.17	2389	3555
19 x 3 x 2.5	3414271905GR	0.153	3.89	1.810	45.97	2.073	52.65	2666	3967
24 x 3 x 2.5	3414272405GR	0.153	3.89	2.170	55.12	2.450	62.23	3333	4959
32 x 3 x 2.5	3414273205GR	0.153	3.89	2.396	60.86	2.693	68.40	4100	6100