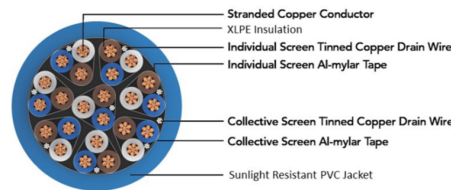


# POLYCAB HYDRO TYPE TC-ER/ ITC-ER/ CIC-TC OR MARINE CABLE

## Instrumentation/ Signal/ Marine Shipboard Cable, Type SP-OS



Images not to scale. Follow table for dimensions

### APPLICATION

Polycab Hydro cables are designed to use in corrosive environments like Off-Shore & On-Shore oil rigs, Petrochemicals etc on class I Remote control Signalling Circuits up to 600 V. These cables can be used in wet and dry area either indoor or Outdoor location in cable trays or in raceways supported by a messenger wire. These cables can be installed as TC/ITC in class I, Division 2; Class II, Division 2; class III, Division 1 and Zone 2 hazardous location according to NEC 501.10, 502.10, 503.10 and 505.15. and also can be used in direct burial. TC – ER can be used without conduit according to NEC 336.10(7).

### CHARACTERISTICS

**Voltage Rating**  
600 V

**Operation Temperature**  
-35°C to 90°C (wet & dry)

### CONSTRUCTION

- Stranded Class B annealed plain copper conductor as per ASTM B3 & ASTM B8
- Insulated with crosslinked Polyethylene meets the requirements of UL 1277, UL 2250, UL 1309 Type X90 and IEEE 1580 Type X.
- Individual shielding of Polyester/Aluminium tape overlapped to provide 100% coverage. A tinned copper stranded drain wire shall be applied under the shield.
- Pairs/Triads are assembled with a left hand lay
- Overall shielding of Polyester/Aluminium tape overlapped to provide 100% coverage. A tinned copper stranded drain wire shall be applied under the shield.
- Sunlight resistant PVC jacket rated 90°C wet and dry, as per UL 1277, UL 2250, UL 1309 and IEEE 1580 Type T over the complete assembly. Colour : Black
- Ripcord provided for jacket

#### Core Identification

For Pair : White and black with numbered polyester tape.

For Triad : Black, Red and White with numbered polyester tape

#### Bending Radius

12 x Overall Diameter

### OUTSTANDING FEATURES

- Sunlight resistant
- Moisture resistant
- Chemical resistant
- Heat resistant

### STANDARD FOLLOWS

ASTM B8, ASTM B3  
UL 2250  
UL 1277  
UL 1309  
IEEE 1580

### COMPLIANCE

Conductor resistance test	ASTM B8
Insulation resistance	UL 1309
Vertical tray flame test	IEEE 1202, IEEE 383
Cold bend test at -35°C	
Cable tray use and direct burial	
RoHS & REACH	

### OUR ACCREDITATIONS



### APPROVAL



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### Dimensional Characteristics:

No. of Pairs	No. of Triad	Conductor size	Insulation thickness	Nominal overall diameter		Approximate weight per 1000 ft
		AWG	mils	inch		lbs
2	2	16	30	0.57		197
4	2	16	30	0.66		261
8	2	16	30	0.92		500
12	2	16	30	1.08		615
16	2	16	30	1.20		781
20	2	16	30	1.34		927
24	2	16	30	1.48		1090
36	2	16	30	1.76		1690
2	3	16	30	0.63		232
4	3	16	30	0.75		317
8	3	16	30	0.98		613
12	3	16	30	1.15		761
16	3	16	30	1.28		986
20	3	16	30	1.42		1177
24	3	16	30	1.58		1389
2	2	14	30	0.62		250
4	2	14	30	0.72		341
8	2	14	30	1.01		658
12	2	14	30	1.18		825
16	2	14	30	1.32		1058
20	2	14	30	1.47		1264
24	2	14	30	1.63		1491
36	2	14	30	1.94		2301
2	3	14	30	0.66		298
4	3	14	30	0.77		420
8	3	14	30	1.08		817
12	3	14	30	1.26		1034
16	3	14	30	1.41		1349
20	3	14	30	1.57		1622
24	3	14	30	1.75		1920

\*Above values are approximate and subject to standard manufacturing tolerance

**POLYCAB HYDRO TYPE TC-ER/ ITC-ER/ CIC-TC OR  
MARINE CABLE**



**Instrumentation/ Signal/ Marine Shipboard Cable, Type SP-OS**

**Electrical properties:**

Electrical Properties	UOM	16 AWG	14 AWG
Conductor resistance (Nom.) at 20°C	Ω/1000ft	4.1	2.58
Insulation test voltage (Spark test)	KVac	7.5	
Dielectric test voltage	Vac	1500	
Insulation resistance constant (min)	MΩ-1000ft	550 at 15.5°C	350 at 15.5°C

POLYCAB