



RS-485 / RS-422 & JIS Shipboard Communication Cables

TTY-S / TTYC-S / TTYCY-S

JIS Individually Screened Shipboard Pair

JIS C 3410 250 V individually pair-screened ('-S') 2P to 30P × 0.75 / 1.25 mm² TTY-S

JIS C 3410 · Individual Pair Screen

'-S' PiMF ≥ 70 dB Crosstalk Isolation

TTY-S / TTYC-S / TTYCY-S 250 V

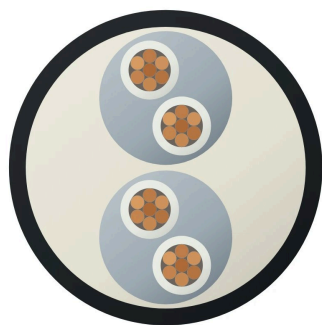
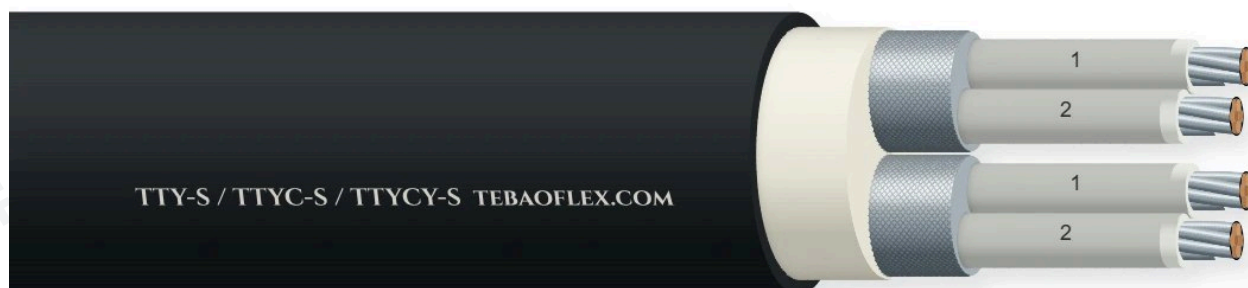


Application

TTY-S / TTYC-S / TTYCY-S JIS Individually Screened Shipboard Pair Cable wraps every individual 90 °C EPR-insulated twisted pair (2P to 30P × 0.75 mm² and 1.25 mm²) in its own numbered 100 % copper or aluminium/polyester tape screen with a dedicated tinned

Typical uses: Integrated Bridge Systems (IBS) & ECDIS, Engine Control Room (ECR) multi-pair trunks, LNG cargo custody & tank gauging, Propulsion RPM, torque & governor telemetry

Construction



Cross-section, not to scale

1	Stranded tinned copper conductors	JIS C 3410
2	90 °C EPR rubber insulation	JIS C 3410
3	Individual pair screen ('-S') +	JIS C 3410 ('-S')
4	Flame-retardant PVC inner sheath (TTY-S)	JIS C 3410
5	Wire braid armour (TTYC-S / TTYCY-S)	JIS C 3410
6	Protective PVC oversheath (TTYCY-S)	JIS C 3410 / IEC 60332-3-22

Technical data

Typical values

Rated voltage U0/U	250 V AC	Pair impedance Z0	≈ 85–100 Ω balanced screened pair
Max. DC conductor resistance @ 20 °C	≤ 26.3 Ω/km (0.75 mm ²) · ≤ 15.6 Ω/km (1.25)	Mutual capacitance @ 1 kHz	≈ 105 nF/km (individually screened pair)
Inter-pair crosstalk attenuation	≥ 70 dB at 10–100 kHz	Insulation resistance & test V	≥ 300 MΩ·km @ 20 °C · 1,500 V AC / 1 min
Max. conductor operating temp.	+90 °C (EPR insulation per JIS C 3410)	Ambient installation temperature	-20 °C to +60 °C
Min. bending radius	6 × D fixed installation	Pair screen isolation	Polyester isolation tape over each pair
Bunched flame retardancy	IEC 60332-3-22 Category A & IEC 60332-1-2	Marine oil & salt-fog resistance	JIS C 3410 / IEC 60092-350
Standards	JIS C 3410 (TTY-S / TTYC-S / TTYCY-S)		

Sizes

6 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Conductor size	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard TTY-S / TTYC-S / TTYCY-S configurations 6 sizes						
☐ TTYCY-S 2P×0.75 mm ² Individually Screened JIS C 3410	2P×0.75 mm ² (TTYCY-S)	0.75 mm ² (7/0.37)	14.5	36	295	87
☐ TTYCY-S 4P×0.75 mm ² Individually Screened JIS C 3410	4P×0.75 mm ² (TTYCY-S)	0.75 mm ² (7/0.37)	16.8	70	420	101
☐ TTYCY-S 7P×0.75 mm ² Individually Screened JIS C 3410	7P×0.75 mm ² (TTYCY-S)	0.75 mm ² (7/0.37)	19.8	120	585	119
☐ TTYCY-S 10P×0.75 mm ² Individually Screened JIS C 3410	10P×0.75 mm ² (TTYCY-S)	0.75 mm ² (7/0.37)	24.0	170	810	144
☐ TTYCY-S 2P×1.25 mm ² Individually Screened JIS C 3410	2P×1.25 mm ² (TTYCY-S)	1.25 mm ² (7/0.48)	15.8	56	355	95
☐ TTYCY-S 4P×1.25 mm ² Individually Screened JIS C 3410	4P×1.25 mm ² (TTYCY-S)	1.25 mm ² (7/0.48)	18.6	110	515	112

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per JIS C 3410 (TTY-S / TTYC-S / TTYCY-S Individually Screened).

Impedance, capacitance & attenuation

6 sizes

Configuration	Impedance Z0	Max. DC R @ 20 °C Ω/km	Mutual C pF/m±	VoP %	Attenuation @ 20 °C dB/100m	Dielectric test V
2P×0.75 mm ² (TTYCY-S)	90 Ω	52.6	105.0	58	0.95 dB/100m @ 100 kHz	1,500
4P×0.75 mm ² (TTYCY-S)	90 Ω	52.6	105.0	58	0.95 dB/100m @ 100 kHz	1,500
7P×0.75 mm ² (TTYCY-S)	90 Ω	52.6	105.0	58	0.95 dB/100m @ 100 kHz	1,500
10P×0.75 mm ² (TTYCY-S)	90 Ω	52.6	105.0	58	0.95 dB/100m @ 100 kHz	1,500
2P×1.25 mm ² (TTYCY-S)	85 Ω	31.2	110.0	58	0.78 dB/100m @ 100 kHz	1,500
4P×1.25 mm ² (TTYCY-S)	85 Ω	31.2	110.0	58	0.78 dB/100m @ 100 kHz	1,500

– Transmission values (characteristic impedance Z0, mutual capacitance, VoP, and attenuation) are measured at +20 °C per JIS C 3410 (TTY-S / TTYC-S / TTYCY-S Individually Screened).

Standards and approvals

- ✓ JIS C 3410
- ✓ ClassNK / DNV / ABS / LR
- ✓ IEC 60332-3-22 Cat A

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/jis-individually-screened-shipboard-pair-cable



Typical values for this cable type, based on JIS C 3410 (TTY-S / TTYC-S / TTYCY-S Individually Screened). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.