



# Industry Cable Application BY MARKET

## CIT CABL FOR

## Industry Application Information

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## Application Content

1. Measurement and control systems
2. Robotics
3. Drag chain
4. High Operating voltage
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6. High Operating temperature
7. EMI protection, RF, Communications
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10. Electrical drive engineering for Defend Explode
11. New energy



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## Measurement and control systems

Industrial processes necessitate the use of extremely reliable measuring and control systems. We can deliver the optimum cables for these applications.

They guarantee maximum reliability and efficiency during the systems' entire operating time. We have the best solutions for your requirements, whether you are a mass manufacturer or a niche provider.

We not only provide our customers with the familiar insulation materials, but also with special cables for measuring and control systems with low high temp. and low corrosive insulation. There are measuring and control system applications in all sectors of industry. The growing trend of monitoring and controlling industrial processes has driven growth in know-how and innovation over recent years.

## Measurement and control systems

- 1, Precision Measurement resistance wire(NiCr20ALSi)
- 2,PTFE Insulation layer
- 3,Braid: glass fiber cladding
- 4,PTFE Coating

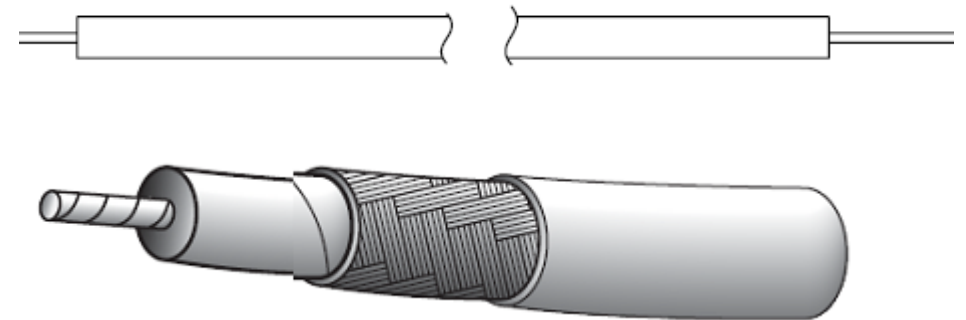
Working Temperature  $-55 \sim 250^{\circ}\text{C}$

Dielectric Strength:8Kv

Resistance Value:  $R_v = 1.3 \pm 0.1 \text{ Ohm}$

Average resistance :Test temperature,  $-55 \sim 20$   
( $^{\circ}\text{C}$ ) , $\alpha_1(10^{-6}/^{\circ}\text{C})/-5 \sim +5$

Electromotive force: $0 \sim 100^{\circ}\text{C}$ ,  $\mu\text{V}/^{\circ}\text{C} : \leq 2.0$



## Measurement and control systems

- 1, Precision Measurement thermocouple T,K,J,KC and Special alloys
- 2, Insulation : Glass fiber Braid ,PTFE and/or Kapton tapes
- 3, Jacket : Glass fiber Braid ,PTFE and/or Kapton tapes

Good resistance to thermal shock.

- Excellent ageing resistance.
- Good resistance to humidity: ref. 2KVS.
- Good resistance to aggressive chemical atmospheres.

Electrical

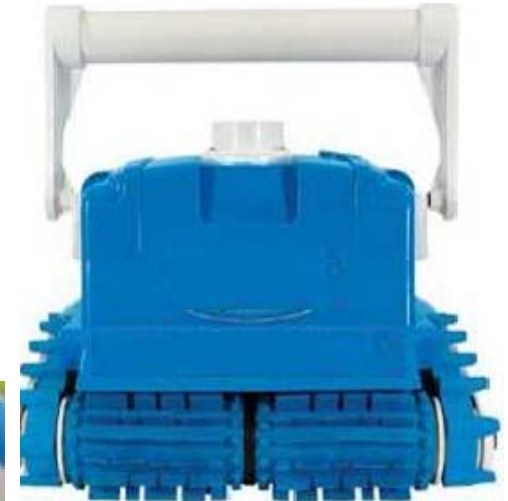
- Working voltage: 300/500 V.
- Test voltage: 2000 V.
- Increased dielectric strength: ref. 2KVS.

Operating temperature: -100---+350 °C, Peaks: --+450 °C



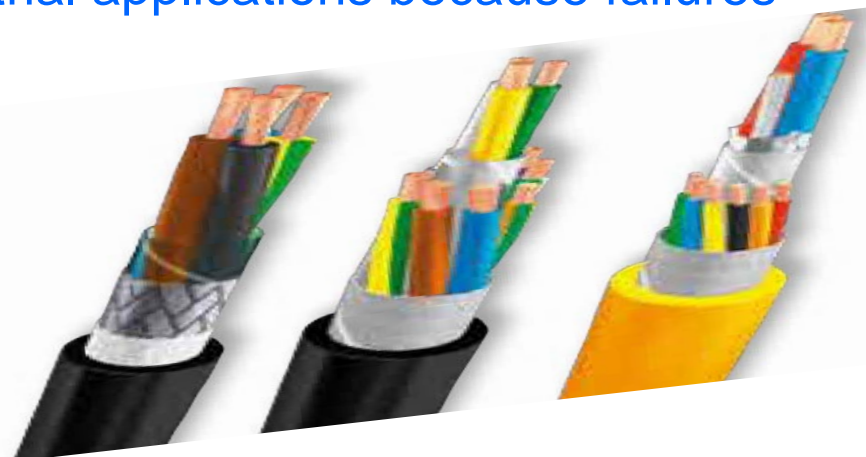
## Floating Cable for Underwater Robot

- 1, Integrated Density between 0.85-0.98 floatable
- 2, Water-Proof
- 3, UV Protection
- 4, High/Low Temperature Resistance
- 5, Corrosion Resistance
- 6, Long Life Time



## Cables for use in drag chains

We have many different insulation and Jacket materials. Increasing requirements of special cables has lead to the term ,dynamic load cables. it have been tested in millions of test cycles for the use in drag chains. This high reliability also guarantees maximum plant availability in industrial applications because failures due to poor cable quality are eliminated.



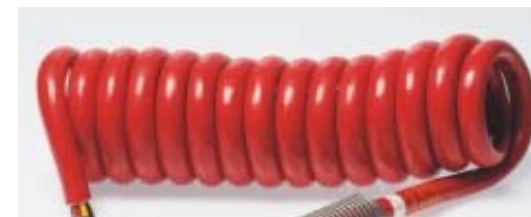
### SPEC:

PUR drag chain cable, shielded, 4 x 0.34 mm<sup>2</sup>

Hybrid PUR drag chain cable, 3 x 1.0 mm<sup>2</sup> + 8 x 0.5 mm<sup>2</sup>

Hybrid PUR drag chain cable with foil shield + 6 x 0.35 mm<sup>2</sup>

Hybrid TPEE drag chain cable with shield 6 x 0.35 mm<sup>2</sup>



## High Operating voltage

Highly flexible, small diameter, extra low capacitance 2 conductor, 25KV-DC rated Silicone insulated high voltage cable.

### Features

- Low capacitance.
- High flexibility.
- Small diameter.
- 95% shielding braid coverage.
- Low power high voltage test- and measuring equipment.





## Chemical-resistant

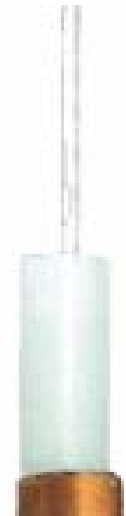
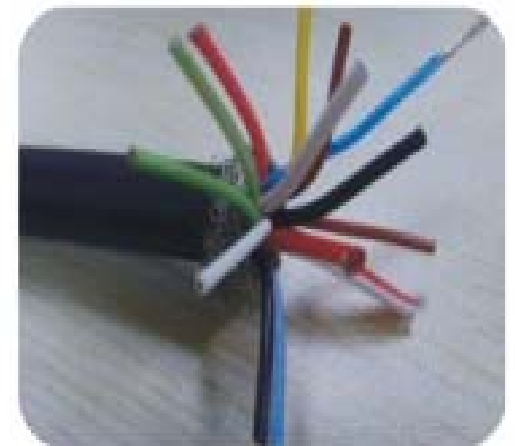
**Application: PTFE,ETFE and FEP Cable for gearbox, Oil-box, Sensor interconnect**

0.35mm<sup>2</sup>----10.00mm<sup>2</sup>    32AWG ----10 AWG

- 1,Excellent mechanical properties and chemical resistance.
- 2,Outstanding Oil resistance, etching.
- 3,High tear and tensile strength damping characteristic.

Operating temperature range

- 100 °C to +260°C for PTFE
- 100 °C to +250°C for PFA
- 60 °C to +200°C for FEP
- 60 °C to +175°C for ETFE
- 40 °C to +150°C for PVDF



## EMI protection for RF, Communications

Our cables are customized designs. Design examples are shown here with two core sheathed cable for the broad field of sensor applications. Depending on the attenuation requirement one or two HF or RF filter cores are used. A shield additionally influences the attenuation behavior and hence clearly the electromagnetic compatibility (EMC).

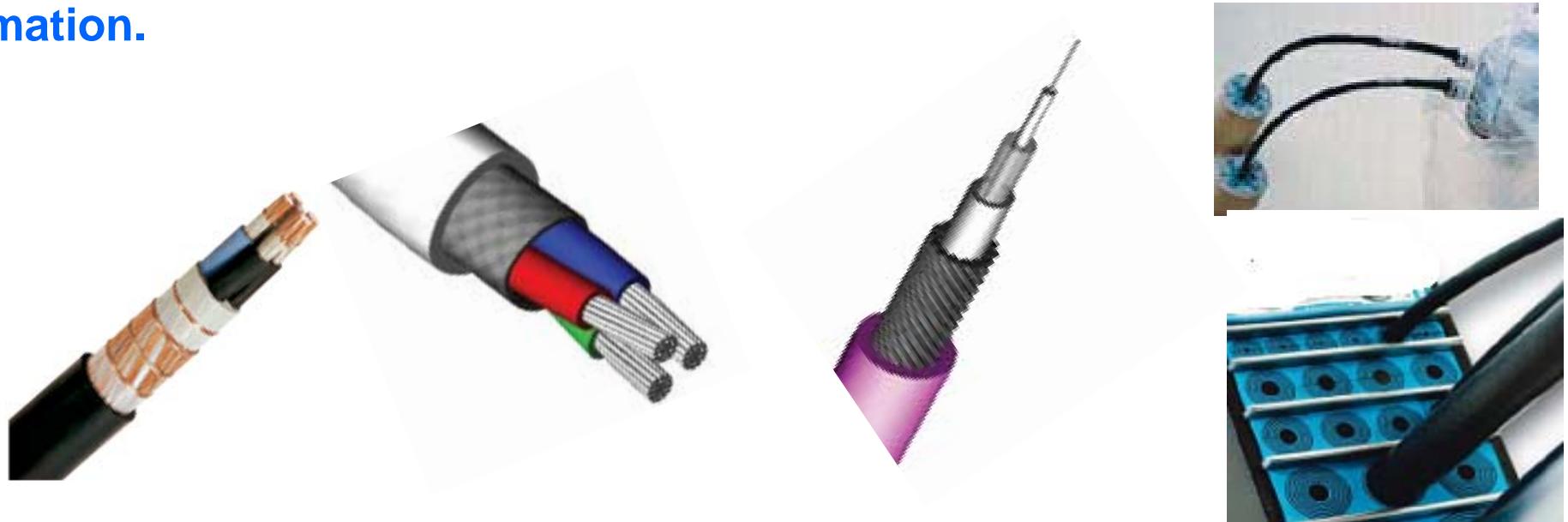
### EMI protection Materials:

- 1, Semi-Conductor PVC ,Teflon, silicone
- 2,Braid,Copper
- 3, Metallic foil.
- 4, Aluminum foil



## Oil-Gas resistant

Our cables help to ensure operational reliability by protecting from hazards induced by water pressure, fire, jet-fire and gas, and by minimizing the risk for explosions. In addition, a special EMC version can be used to prevent electromagnetic disturbances from interfering with equipment. Since certification is constantly updated, please contact us for further information.

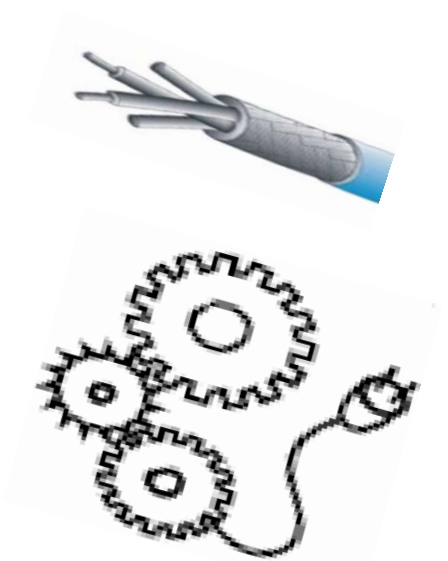


## Electrical drive engineering for Defend Explode

We have the perfect solution for you, whether you require appliance cables with customer-specific outer sheathing, connecting or bridging cables or heavy and robust sheathed cables for use in demanding environments.

we also produces these cables to customer specifications with special steel to ensure maximum mechanical strength. These extremely robust, special cable designs are used in security areas such as airports and in the petrochemicals industry. Hard as steel yet extremely flexible; it has the solution to match your requirement.

Rubber/PUR sheathed cable with two or five wires  
Rubber/PUR sheathed cable with five wires  
and braided steel wire or Steel tube.



## New energy



Resistant Ozone

Resistant Ultraviolet Radiation

Resistant Chemical Erode

Resistant Vapor

No Plumbun

No Halogen

Conductor's Temporary Over Loading: +250°C

Working Temperature: -40°C to 125°C



Cable: 10AWG\*2C+18AWG\*1P+18AWG (Drain)

1, Withstanding of 600A short circuit

2, Bending radius of 150mm at 90 degrees

3, Twisted pairs 18AWG 120 +/- 10 ohm

4, 25 years -out door harsh environ

