

## SUBCAB<sup>®</sup> cables

Flygt SUBCAB cables are specially made to enhance the reliable and long-life operation of Flygt products. Among many features, flexible SUBCAB cables comprise a special tear- and abrasion-resistant compound that has a much higher tensile strength compared to conventional cables.

The wide range of SUBCAB cables offers very low water absorption properties, excellent insulation properties, high temperature resistance as well as oil resistance for many types of liquids. This broad assortment of flexible cables complies with most international standards and approvals.



### Wide assortment

#### Many configurations

Flygt SUBCAB cables are available in many configurations for single-phase and three-phase applications as well as with or without monitoring conductors.

#### Shielded versions for VFD

The SUBCAB range also has shielded versions, 230/460 V, for use with variable frequency drives (VFD). The efficient shield reduces electromagnetic noise, complies with CE/EMC requirements and secures correct communication with supervision units. All shielded SUBCAB cables have built-in monitoring cables.

#### Control cables

For remote pump supervision, Flygt provides a simple, reliable solution through its cables with control cables. Only one cable is required to power and control the pump, unlike conventional pump control solutions that consists of a motor cable plus a separate control cable.

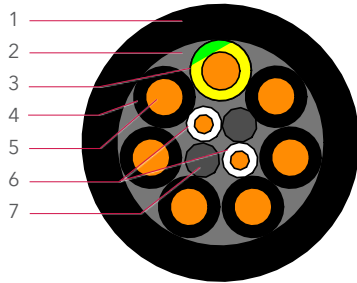
The SUBCAB range includes cables with twisted pairs of shielded control cables specifically adapted for use with Flygt MAS 800. The MAS 800 is a pump supervision system, available for use with Flygt's large, mid-range and slurry pumps. It constantly monitors pump operation, records and stores critical data, immediately alerts you with early warning signals and, if required, automatically stops the pump.

#### Cable for star-delta start

7-power cable versions suitable for star-delta (Y/D) start are also available.



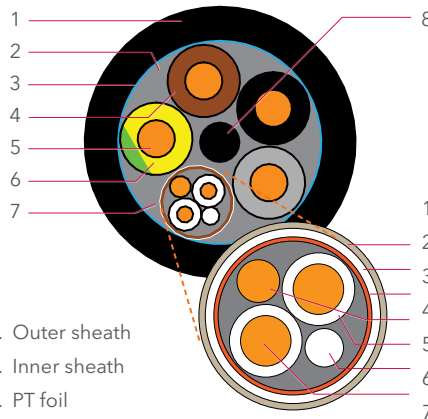
7G2.5+2x1.5 SUBCAB®



1. Outer sheath
2. Inner sheath
3. Ground core
4. EPR insulation
5. Copper conductor
6. Control cores (marked T1-T2)
7. Rubber filler



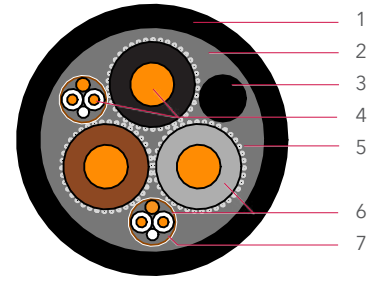
4G10+S(2x0.5) SUBCAB®



1. Outer sheath
  2. Inner sheath
  3. PT foil
  4. HEPR insulation
  5. Copper conductor
  6. Ground core
  7. Control element (cores marked T1-T2)
  8. Rubber filler
1. Sheath
  2. PT foil (wrapped)
  3. Non-woven copper tape/screen longitude
  4. Drain wire (tinned conductor)
  5. HEPR insulation
  6. Polyester yarn filler
  7. Tinned copper strand T1-T2



S3x70+3x25/3+S2(2x0.5) SUBCAB®



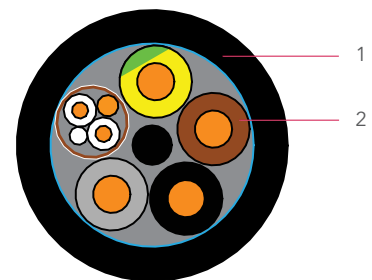
1. Outer sheath
2. Inner sheath
3. Rubber filler
4. Copper conductor
5. Screen
6. HEPR insulation
7. Control element (cores marked T1-T4)

## Outer sheathing and insulation

### Long lifetime

The outer sheath (made of chlorinated polyethylene CPE type VDE/5GM5) comprises several features that extend SUBCAB life expectancy four times longer than a conventional H07RN-F standard cable.

- High temperature resistance (withstands water temperatures up to 158°F)
- Superior mechanical strength
- High abrasion and tear resistance
- Extremely low working rate, withstands water depths up to 160 feet
- Chemical resistance (pH 3-10)
- Ozone resistance in compliance with EN 50396 and ISO 4892-2
- Oil and flame resistance according to IEC-norm 60811-1-1 and VDE 0472



1. Outer sheath
2. Insulation

### Ensures a reliable leak-free fit

Flygt SUBCAB® cables have tight outer diameter tolerances and are designed and tested to fit perfectly together with the cable entry grommet. The outer sheath withstands the high pressure of the grommet and retains its mechanical and physical properties even after long periods of use, minimizing cable diameter.

### Prevent insulation deterioration

SUBCAB cables have an advanced insulation compound/inner sheath of HEPR/3GI3 (high density ethylene-propylene rubber) or EPR/3GI3 (ethylene-propylene rubber). These compounds have a temperature rating of 194°F, preventing insulation deterioration, and extending the expected lifetime of the cables to approximately four times longer than conventional H07RN-F standard cables.

---

## Cable comparison

Features	Flygt SUBCAB cable	Standard H07RN-F cable
Expected lifetime	4 times H07RN-F.	
Qualified for permanent use in water	Yes, according to HD22.16 and VDE 0298-300 standards.	No
Tested for long-term sealing in Flygt pumps	Yes. Cable tested at a water pressure of 70 psi and temperature of 158°F. Sealing specifically adapted to Flygt pumps.	No
Maximum outer sheath and insulation temperature	Resists 158°F at outer sheath, 194°F at insulation.	Resists 104°F at outer sheath, 140°F at insulation
Weather resistant	Yes, tested for UV and ozone resistance.	No
Integrated control cables	Yes, shielded and unshielded. No separate control cable required.	No
Ex approval	Yes, approved as explosion proof with Flygt pumps and mixers in Europe (INERIS) and the US (FM and MSHA).	No
Electrical and materials approvals	Yes. Europe (VDE), North America (CSA), China (CCC).	No
Screened versions for VFD and EMC applications	Yes. The shielded cable attenuates electromagnetic noise induced by the use of variable frequency drives, (VFDs).	No

---

## Standards and approvals

### **Approved for explosion-proof and mining applications**

SUBCAB® cables are approved for use in explosion-proof applications with Flygt pumps and mixers in accordance with FM and MSHA (US) and INERIS (Europe), and approved for mining applications in accordance with VDE 0207.

### **Compliance with international standards**

The outer sheath complies with most international standards for mechanical quality, temperature resistance as well as oil resistance, such as IEC, CSA, MSHA, FM and VDE standards. For example, the low absorption rate qualifies SUBCAB cables for permanent use in water according to HD 22.16 and VDE 0298-300.

