

Cable solutions for use in water

ROFLEX[®] – Operationally safe up to 200 m water depth



Power and control cables with a polyurethane outer sheath (PUR or TPU) are increasingly replacing classic rubber cables in applications that require maximum reliability in continuous use in water. Compared to standard cables such as H05BQ-F or H07BQ-F, the **ROFLEX**[®] cable types from Studer Cables offer numerous additional advantages.

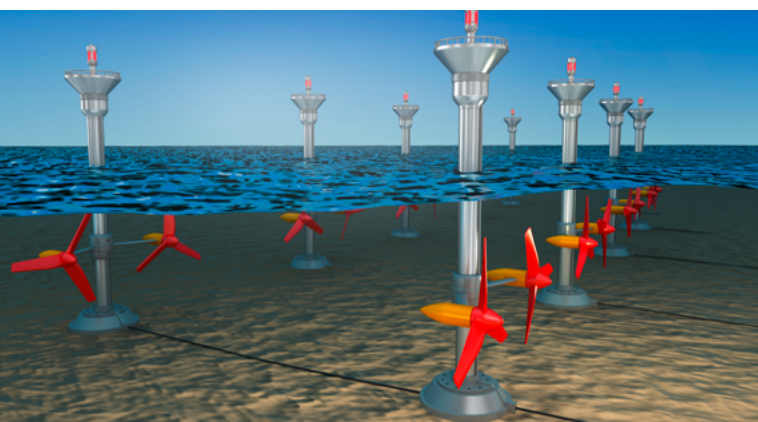
Minimized maintenance costs through maximum reliability

Maintenance work or troubleshooting on underwater systems – such as pumps or lighting – is often time-consuming and expensive. Using a reliable cable that is optimally designed for extreme conditions helps to significantly reduce unplanned downtime and high maintenance costs.

The combination of cross-linked ethylene-propylene rubber (EPR) as wire insulation and the outstanding properties of PUR as the outer sheath ensures excellent water resistance and improved electrical insulation. ROFLEX[®] has proven itself in practice - especially in applications in seawater, cooling water and long-term tests.

Advantages

- Immersion depth of approx. 200 meters
- Suitable for permanent water storage (AD8)
- Good abrasion resistance
- Flexible at low temperatures down to $-40\text{ }^{\circ}\text{C}$
- Halogen-free
- RoHS and REACH compliant
- Oil and fuel resistant
- Good weather, ozone and UV resistance
- Hydrolysis-resistant



Proven under extreme conditions

- Pressure-resistant up to 20 bar (corresponds to an immersion depth of approx. 200 meters)
- Permanent use in water up to $+50\text{ }^{\circ}\text{C}$
- Optimum sliding properties and mechanical protection

Thanks to a special polyurethane compound, **ROFLEX**[®] offers outstanding sliding properties and reliably protects the cores – even in the presence of water or in moving systems. In addition, the outstanding UV resistance ensures a wide range of indoor and outdoor applications, even under extreme conditions where conventional cables reach their limits.

Customized solutions from Studer Cables

Rely on safe and sustainable cabling solutions for demanding environments. With modern production facilities and continuous material development, we offer:

- Best insulating properties
- Higher temperature resistance
- Longer service life
- Maximum security features

One of Studer Cables AG's specialties is tailor-made, customer-specific cable solutions that are individually adapted to the requirements of your application.

Rely on **ROFLEX**[®] – for dependable energy transmission in water!

The following table shows further advantages of **ROFLEX**[®] compared to the requirements for H05BQ-F and H07BQ-F in accordance with EN 50525-2-21:

Comparison Standard – **ROFLEX**[®]

	$\leq 1,0\text{ mm}^2$		$\geq 1,5\text{ mm}^2$	
	H05BQ-F	ROFLEX [®]	H07BQ-F	ROFLEX [®]
Nominal voltage U / U	300 / 500 V	300 / 500 V	450 / 750 V	600 / 1000 V
Test voltage	2000 V	3500 V	2500 V	3500 V
Short-term conductor temperature	$+90\text{ }^{\circ}\text{C}$	$+120\text{ }^{\circ}\text{C}$	$+90\text{ }^{\circ}\text{C}$	$+120\text{ }^{\circ}\text{C}$
Fixed operating temperature	$-40\text{ }^{\circ}\text{C}$ bis $+80\text{ }^{\circ}\text{C}$	$-55\text{ }^{\circ}\text{C}$ bis $+90\text{ }^{\circ}\text{C}$	$-40\text{ }^{\circ}\text{C}$ bis $+80\text{ }^{\circ}\text{C}$	$-55\text{ }^{\circ}\text{C}$ bis $+90\text{ }^{\circ}\text{C}$
Operating temperature occasionally moved	$-30\text{ }^{\circ}\text{C}$ bis $+80\text{ }^{\circ}\text{C}$	$-40\text{ }^{\circ}\text{C}$ bis $+80\text{ }^{\circ}\text{C}$	$-30\text{ }^{\circ}\text{C}$ bis $+80\text{ }^{\circ}\text{C}$	$-40\text{ }^{\circ}\text{C}$ bis $+80\text{ }^{\circ}\text{C}$



Further information can be found in our data sheets on our website: <https://studercables.com/en/products/>

In addition to first-class products, Studer Cables offers comprehensive advice, precise calculations and other services. If you have any questions, please do not hesitate to contact us personally.