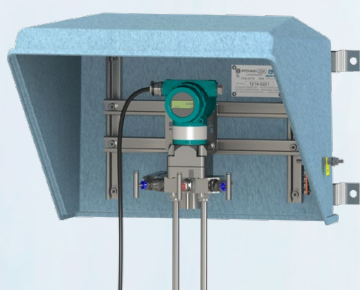


OSNALINE®

ENCLOSURES AND
HEAT TRACED BUNDLES

KME Special Products GmbH & Co., KG
SPECIAL DIVISION
[EN]



Enclosures and Heat Traced Bundles



With its production plants in Germany, France, Italy, Spain, China and the USA, **KME** is one of the world's largest manufacturers of copper and copper alloy products. KME offers innovative product solutions tailored to the respective individual requirements of our customers from the most various industrial sectors.

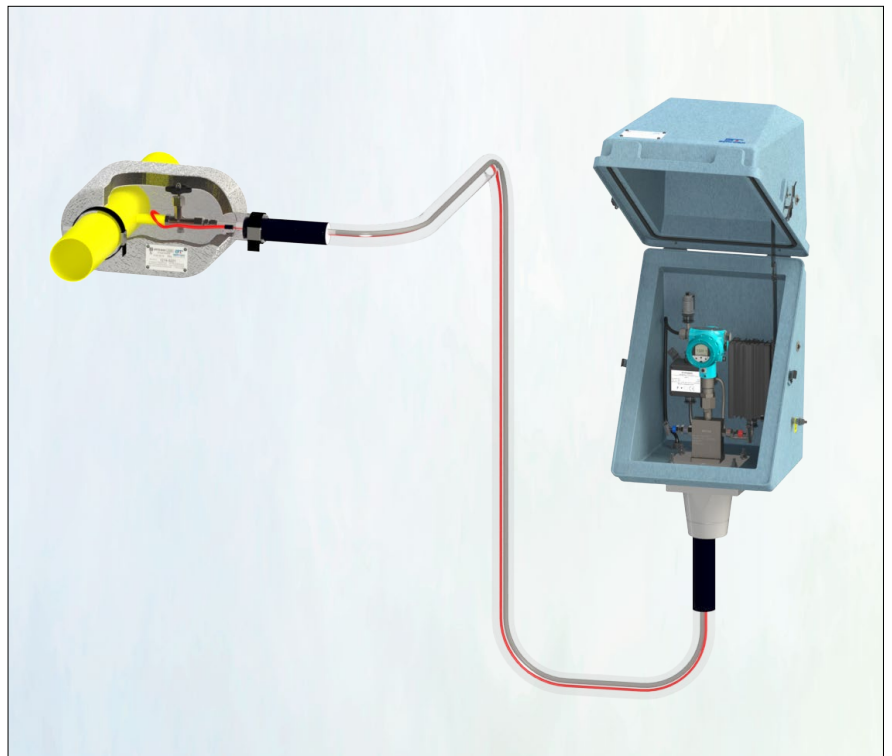
KME's division **Marine Applications** is specialized in the production and supply of copper-nickel alloys for seawater piping systems for a broad range of applications in the shipbuilding, offshore and onshore industries. With almost 50 years of experience, KME offers a variety of specialized tube bundles known as **OSNALINE**[®]. Tailor made prefabricated tube runs for pneumatic or hydraulic control systems and transportation lines. Tube bundles can contain

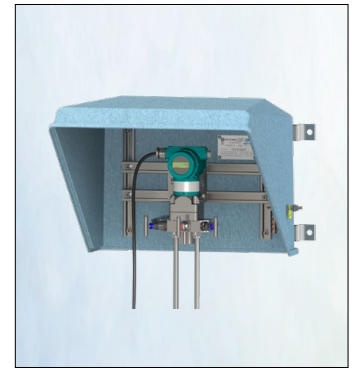
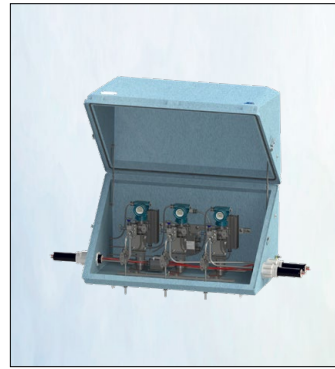
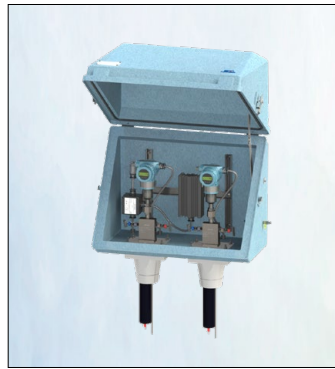
different components such as tubings in different materials or dimensions, preinsulations, steel ropes for traction release and others. Jackets are available in different materials providing excellent mechanical stability and protection.

Since years the company **Arctex** is KME's valuable and qualified partner in the field of enclosures for the highly recommended OSNALINE[®] tube bundles. Opportunities we realized in close cooperation with our partner Arctex have proven to be outstanding successful and a win-win situation for both, KME/ Arctex and our clients and customers.

ARCTEX Modules

Arctex Modules series **PRO** are functional complex module systems, which include several types of modules in one solution. It is possible to use thermostat tubes and tube bundles for connection, drainage and discharge of liquid.





Technical characteristics of ARCTEX Modules

- _ Technical requirement TU 4318-001-17346435-2013
 - _ Protection level from environmental influence \geq IP 65 GOST 14254-96
 - _ Chemical sustainability to oil products
 - _ Assembly components (adapters, tires, plates) - galvanized steel
 - _ Fittings (lockers, hinges) – stainless steel
 - _ Earthing bolt according to electrical installation code
 - _ Cable gland with cable fixation and protection from twisting and plucking according GOST P 51330.0-99
 - _ Explosion protection marking ExII Gb IIC T5X
 - _ Climatic category GOST 15150-69-YXЛ1
 - _ Acceptable assembling area B-1a, B-1r
 - _ External cover resistance, less than 10^9 Ohm
 - _ Structure – two fiberglass covers, the layer between covers is polyurethane thermo insulation material. “Sandwich” overall thickness – from 20 to 40 mm, depends on the modular model.
- _ Additional isolation based on foil cellular rubber allows to use modules for protection of Instrumentation and controls in the temperature range up to -70°C .
 - _ Grey color RAL 7032 (any other color in additional order, company logo)
 - _ Fire safety: low-combustible, smoke emission index 133
 - _ Exploitation acceptable temperature range: from -70°C to $+90$
 - _ C3 Twist resistance 160,5 MPa
 - _ Impact resistance 72 kJ/ma
 - _ Heat transmission 0.2 Wt (m*K)
 - _ Resistance to UV rays
 - _ Guarantee exploitation period 12 month
 - _ Service life, a minimum of 15 years

Purpose and application

Protection modules Arctex Thermo B are successfully used in many industrial fields, such as:

- _ Oil and gas industry
- _ Protection of analytical and automated equipment
- _ Transport
- _ Electrical energy industry
- _ Urban infrastructure
- _ Telecommunication, etc.

Advantages

- _ Level of protection for modules with single-wing door IP65, double-wing door IP54.
- _ Glass composite enclosure resistant to weather, sea water, corrosion, chemicals.
- _ High level of thermo insulation of wall thickness 35-40mm with polyurethane layer. For more extreme exploitation conditions additional thermo insulation Arctic based on cellular rubber can be used with wall thickness up to 60mm.
- _ Capability to install protection modules indoors, in field conditions and with the use of steel structures due to light weight, easy assembling and installation.
- _ Module design allows to produce various types of modules based on Customer's individual enquiries. 3D project planning reduces risk of errors occurring and allows to match the necessary equipment.
- _ Large range of colors can be made on individual request, standard colors – light grey RAL 7032.
- _ High quality European fittings are used in protective modules.
- _ Heavy input and door frames base is made of quality stainless steel.

* Enclosures Series ARKTEH-BASIC, produced without heating systems, the frame size enclosures ARKTEH-THERMO.

Further information:

WWW.KME.COM

® = registered trademark

All changes reserved.
Owing to limitations in printing technology, the colours reproduced in this brochure should be regarded as approximate equivalents to the colours described.

0320.000.0508

MARINE APPLICATIONS

KME Special Products GmbH & Co. KG *Marine Applications* OSNALINE® - Tube and Tube Bundles
P.O. Box 33 20 49023 Osnabrück Klosterstrasse 29 49074 Osnabrück GERMANY
T +49 541 321-3220 info-maritime@kme.com www.kme.com/marine

