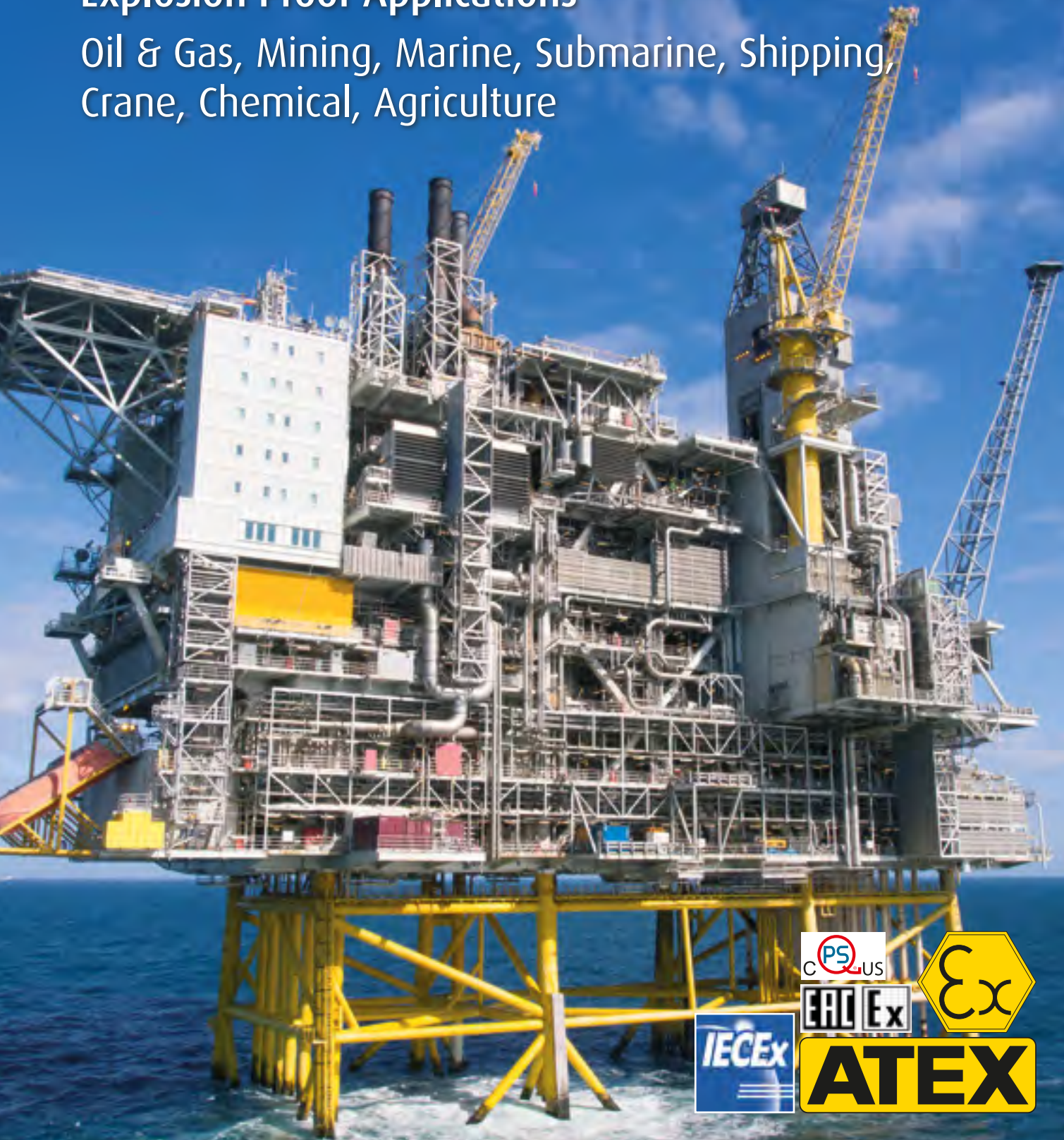


# Ex-Proof Encoders

## Explosion Proof Applications

Oil & Gas, Mining, Marine, Submarine, Shipping,  
Crane, Chemical, Agriculture



# We have the expertise

The history of Scancon

SCANCON has been manufacturing encoders since 1973, and is well known for its high quality encoders and special solutions. SCANCON exports encoders to more than 78 countries worldwide from our factory and head office near Copenhagen.

## Introduction:

Scancon Encoders offers the largest range of ATEX encoders in the world. These encoders are in use worldwide in a variety of applications. Encoder sizes range from  $\varnothing$  24 mm up to  $\varnothing$  108 mm. Our encoder housings, cable glands, and covers are selected from non-corrosive material which allows us to offer environmental ratings as high as IP 69K.

Robust as well as cost effective, Scancon provides the encoders of choice for major oil and gas companies around the world.

## Incremental types:

SCA24EX, SCH24EX, 2QEX, 2REX, 2D, SCH86BEX

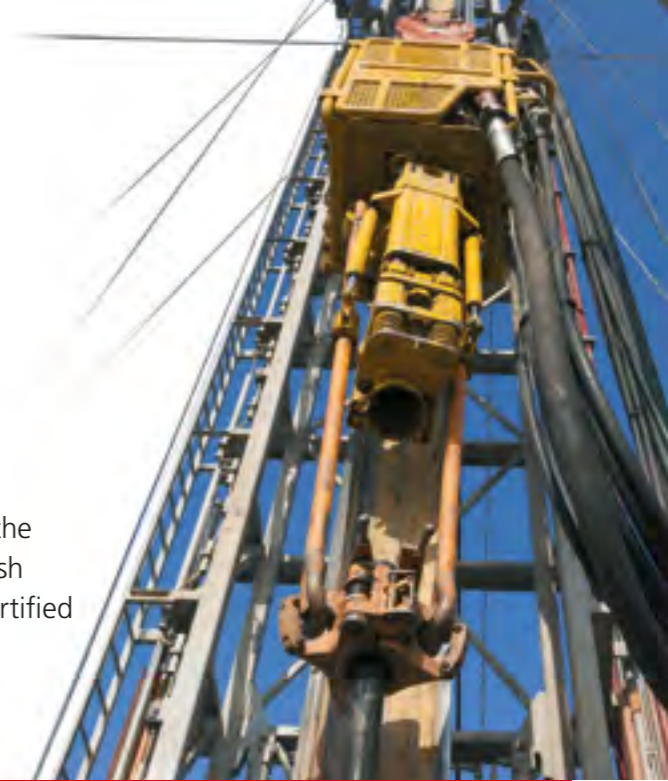
## Absolute types:

EXAG, EXME, EXMU, SCH108BEX

# Industrial encoders

Oil and gas field encoders

Scancon has long been an industry leader in providing encoders to the Oil and Gas industry. With an established expertise in designing harsh environment encoders, Scancon offers a wide variety of Ex-proof certified incremental and absolute encoders and related products.



## SCH68DW

Hollow Shaft Encoder

- Standard 1" – 14 dia.
- Threaded connector and convertible adaptor
- $\varnothing$  68 mm
- Rugged and Reliable
- The smallest DrawWorks encoder on the market



## SCH86BEX

Ex-Proof Hollow Shaft Encoder

- ATEX, IECEx, North America Class I Div. 2, and EAC Ex certified
- Rugged and Reliable
- Removable End Cap for field replacement of cable
- $\varnothing$  86 mm
- Unbreakable Disk
- Applications: top drives, motors, winches, cranes, DrawWorks



## 2QEX-A

Ex-Proof Shaft Encoder

- ATEX Zone 2 Certified
- Rugged and Reliable
- IP 67 "Water-Proof" Protection
- Unbreakable Disk
- Applications: wireline units, cranes, top drives



## 2REX-A

Ex-Proof Shaft Encoder

- ATEX & IECEx Zone 1 Certified
- Robust construction
- Removable End Cap for field replacement of cable
- $\varnothing$  68 mm
- Unbreakable Disk
- Applications: top drives, DrawWorks, cranes, winches, control panels, motors, rotary tables



## EXAG

Ex-Proof Absolute Encoder

- ATEX & IECEx Zone 1 Certified
- $\varnothing$  78 mm
- SSI, Profibus, CANOpen, or DeviceNet protocols
- Dual Output (Incremental + Profibus) option
- Applications: top drives, cranes, winches, anchors



# Industrial encoders

## Mining encoders

### ZREX-A-SR

#### Ex-Proof Shaft Encoder

- ATEX & IECEx Zone 1 Certified
- Unbreakable Disk
- Stainless Steel
- Ø 68
- Removable End Cap for field replacement of cable
- IP 66 (IP 67 option)
- Applications: mining, cranes, winches, control panels, motors, anchors, dry docks, DrawWorks



### EXME-VA

#### Ex-Proof Absolute Encoder

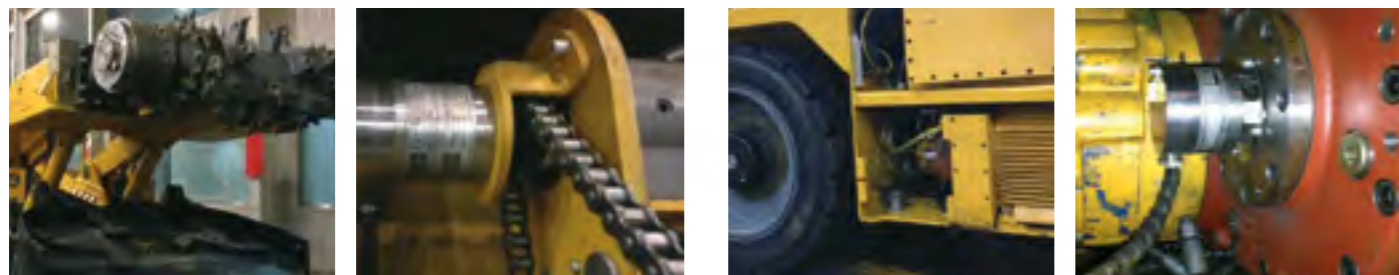
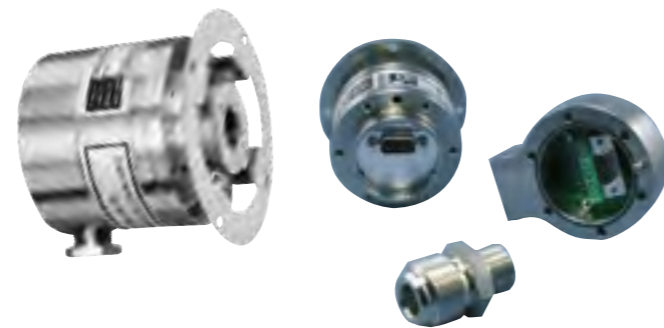
- ATEX & IECEx Zone 1 Certified Mining Certified
- Stainless Steel
- Alu with 22 micron Anodization "Seawater-Proof"
- SSI, Profibus, CANOpen, or DeviceNet protocols
- Ø 78 mm
- Applications: cranes, excavators, saws



### REXM

#### Ex-Proof Hollow Shaft

- ATEX & IECEx Zone 1 Certified Mining Certified
- Stainless Steel
- Alu with 22 micron Anodization "Seawater-Proof"
- SSI, Profibus, CANOpen, or DeviceNet protocol
- Ø 78 mm
- Applications: cranes, excavators, motors, winches, saws



Cable drums on Mining conveyor belt vehicle. EXME absolute encoder.

Mining drill machine and conveyor belt vehicle. REXM absolute encoder.

# Heavy Duty encoders

## Specialized applications

### EXMU

#### Hollow Shaft or Shaft -option

- MSHA Certified
- 80 mm
- AISI Stainless Steel
- Absolute shaft encoder
- SSI, Profibus, CANOpen, or DeviceNet protocol
- Applications: cranes, excavators, saws

### EXAG

#### Hollow Shaft or Shaft -Option

- ATEX & IECEx Zone 1 Certified
- 100 mm absolute
- SSI, Profibus, CANOpen, or DeviceNet protocol.
- Dual Output -Option
- Applications: top drives, cranes, winches, anchors



# World's smallest Ex-Proof encoders

Rig controls and commercial painting enclosures

SCA24EX and SCH24EX encoders are mainly used on different types of panels in rig control houses and painting cabins. They are also used directly as non-contact potentiometers with the turn-knob mounted directly on the shaft.



Panels on rig control house

Knob mounted directly on SCA24EX



Car painting



## SCA24EX

Ex-Proof Shaft Encoder

- The smallest Ex-Proof encoder on the market
- ATEX & IECEx Zone 1 Certified
- Ø 24 mm
- IP 67 "Water-Proof" Protection
- 22 micron Anodization "Seawater-proof"
- Application: control panels, car painting, rig controls



## SCH24EX

Ex-Proof Hollow-Shaft Encoder

- The smallest Ex-Proof encoder on the market
- ATEX & IECEx Zone 1 Certified
- Ø 24 mm
- IP 67 "Water-Proof" Protection
- 22 micron Anodization "Seawater-proof"
- Application: control panels, car painting, rig controls

# Development of an encoder

ATEX Zone 2

After listening to comments and concerns from numerous customers, Scancon developed an encoder specifically designed to meet the harsh environments associated with DRILLING and WIRELINE operations in the Oil Industry.

The 2QEX encoder is designed for the rugged conditions encountered at the drill site. With a shaft that is mechanically fixed in place and an unbreakable metal or plastic disk, the 2QEX is built to withstand the shock and vibration often encountered during operations around an oil rig.

The 2QEX has an environmental rating of IP 67. The shaft seal is IP 67.

The seal protecting against fluid ingress from the connector is located inside the encoder housing. Even if the connector is damaged, fluid cannot enter the encoder. In addition, the connector itself is rated IP 67. In order to test the durability of the encoder, Scancon conducted a test in which a production model 2QEX encoder was submerged in motor oil (15W-40W) for 8 days.



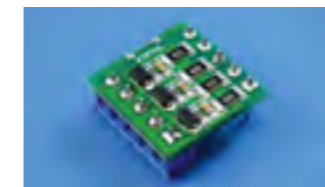
Scancon's 2QEX encoder provides the following:

- Exceptional Reliability
- Increased Profitability (ROI)
- Easy Installation
- Enhanced Performance
- ATEX Certification
- Reduced Maintenance Activity

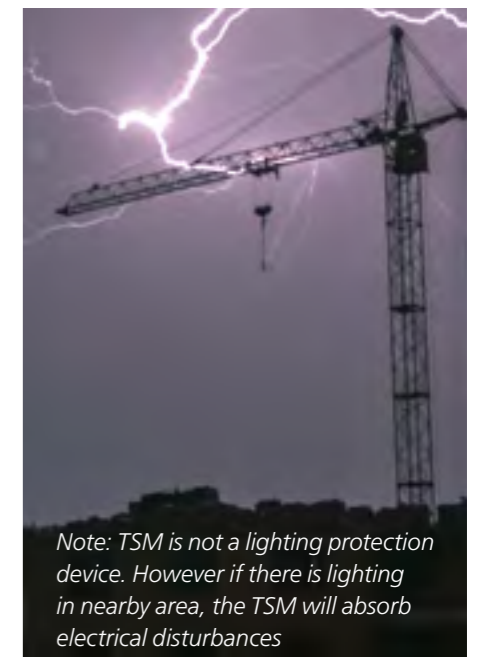
# TSM

## Transient Suppression Module

The Transient Suppression Module is intended to be used in environments where severe electrical transient and disturbances are encountered. The module will protect the encoder electronic from malfunctioning due to power over-load or electrical disturbances coming through the cable. Available as a stand-alone option or as a built-in option on several different encoder types (ask your local Sales representative for details).



All SCANCON incremental encoders for wind turbine applications have built-in TSM protection.



Note: TSM is not a lightning protection device. However if there is lightning in nearby area, the TSM will absorb electrical disturbances

Find your local agent or distributor on [www.scancon.dk](http://www.scancon.dk)  
– or contact one of our offices:

**Denmark, Head Office and Production:**

SCANCON Encoders A/S  
Huginsvej 8  
3400 Hillerød, Denmark  
[www.scancon.dk](http://www.scancon.dk)

E-mail: [sales-hq@scancon.dk](mailto:sales-hq@scancon.dk)

Pho: +45 48 17 27 02

Fax: +45 48 17 22 84

**China Office:**

SCANCON Encoders A/S  
Room 1904, floor 19, Building Shen Yin Fa Zhan  
Wuding Road # 327, Jing An District,  
Shanghai, Zip 200040, P.R. China  
[www.scancon.cn](http://www.scancon.cn)

Email: [sales@scancon.cn](mailto:sales@scancon.cn)

Pho: +86 21 6218 6148

Mobile: +86 18917566289

Fax: +86 21 6218 9992

**India Office:**

SCANCON Encoders A/S  
A-5B / 112B, Janakpuri,  
New Delhi - 110058  
Mr. Naveen Kr. Sharma

E-mail: [india@scancon.dk](mailto:india@scancon.dk)

Pho: +91-11-43513836

Mobil: +91-9312788624 / +91-9810088624

Fax: +91-11-43513836

Skype ID: scanconindia

**South America Office:**

SCANCON Encoders A/S  
Rua Várzea Paulista. 305. 2º Andar. Sala 07  
CEP: 13202-700  
Vila Agrícola  
Jundiaí – SP, Brazil

E-mail: [dgp@scancon.dk](mailto:dgp@scancon.dk)

Pho: +55 11 4526-6989

Fax: +55 11 4526-6989

Agent or Distributor:



[www.scancon.dk](http://www.scancon.dk)