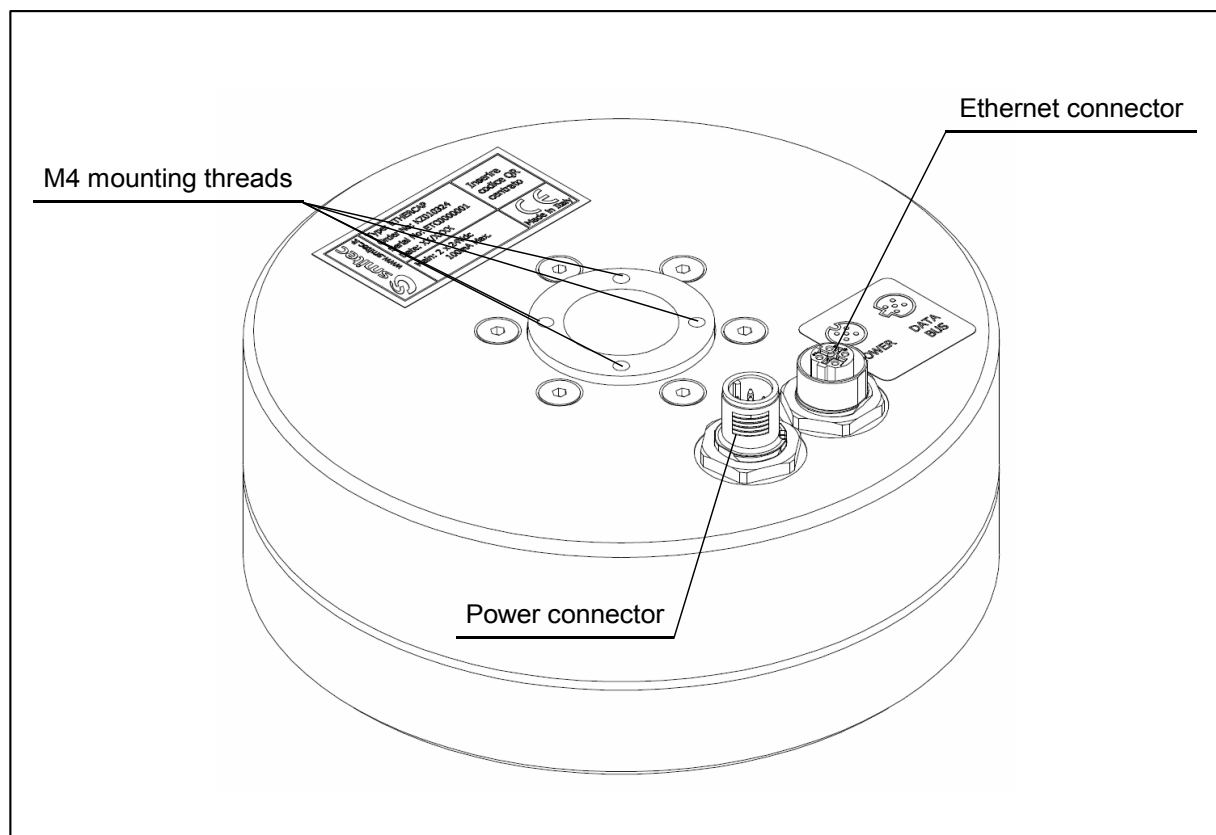# ETHERCAP

Rotating data link

Datasheet

Description

Rotating capacitive data link. Main characteristics:

- 100MB/s Ethernet interface suitable for real-time ethernet-based field buses.
- 22mm internal bore for the passage of pipes and/or cables.
- Industry standard M12 connections.
- High strength aluminum structure.
- IP54 permits wide range of uses.
- Standard M4 fixing holes.

Ordering informations

Products	SMITEC part number
Link module Ethercap	KZ010324
Field installable angled male M12 D coded connector for Ethernet connection (Phoenix Contact p/n 1521258)	EP200339
Field installable straight male M12 D coded connector for Ethernet connection (Phoenix Contact p/n 1543223)	EP200427
Field installable angled female M12 A coded connector for power connection (Phoenix Contact p/n 1681130)	EP200147
Field installable straight female M12 A coded connector for power connection (Phoenix Contact p/n 1543029)	EP200146

Documentation	SMITEC part number
Datasheet for KZ010324 (english)	DK400177

Technical data

General data	
Housing dimensions w/o field connectors (width x height x depth)	84.05 mm x 144 mm
Shaft bore	22 mm
Mounting holes	8 x M4
Weight	1.7 kg
Permissible operating temperature	+5° to +55°C
Permissible storage and transport temperature	-40° to +70°C
Permissible humidity	10% to 95%, not condensing
Permissible air pressure (operation)	80 to 106 kPa (up to 2000 m above sea level)
Permissible air pressure (storage and transport)	70 to 106 kPa (up to 3000 m above sea level)
Degree of protection	IP54 according to IEC 60529
International standard compliance	IEC61132-2 (Programmable controllers)

Power supply	
Module power supply	2 x 24 VDC (20.4 ÷ 28.8 VDC according to IEC 61131-2)
Power supply connectors	Male M12 A coded connectors

Fieldbus interface	
Fieldbus type	Ethernet 100BASE-T IEEE 802.3 compliant SERCOSIII™ compliant (Ethernet based)
Fieldbus connectors	Female M12 D coded connectors
Transmission speed	100 Mbps

Introduction

This module allows to make a contactless fast data link between two revolving machinery parts.

Tested on high-speed real-time SERCOSIII™ protocol, it is suitable for Ethernet-based fieldbuses.
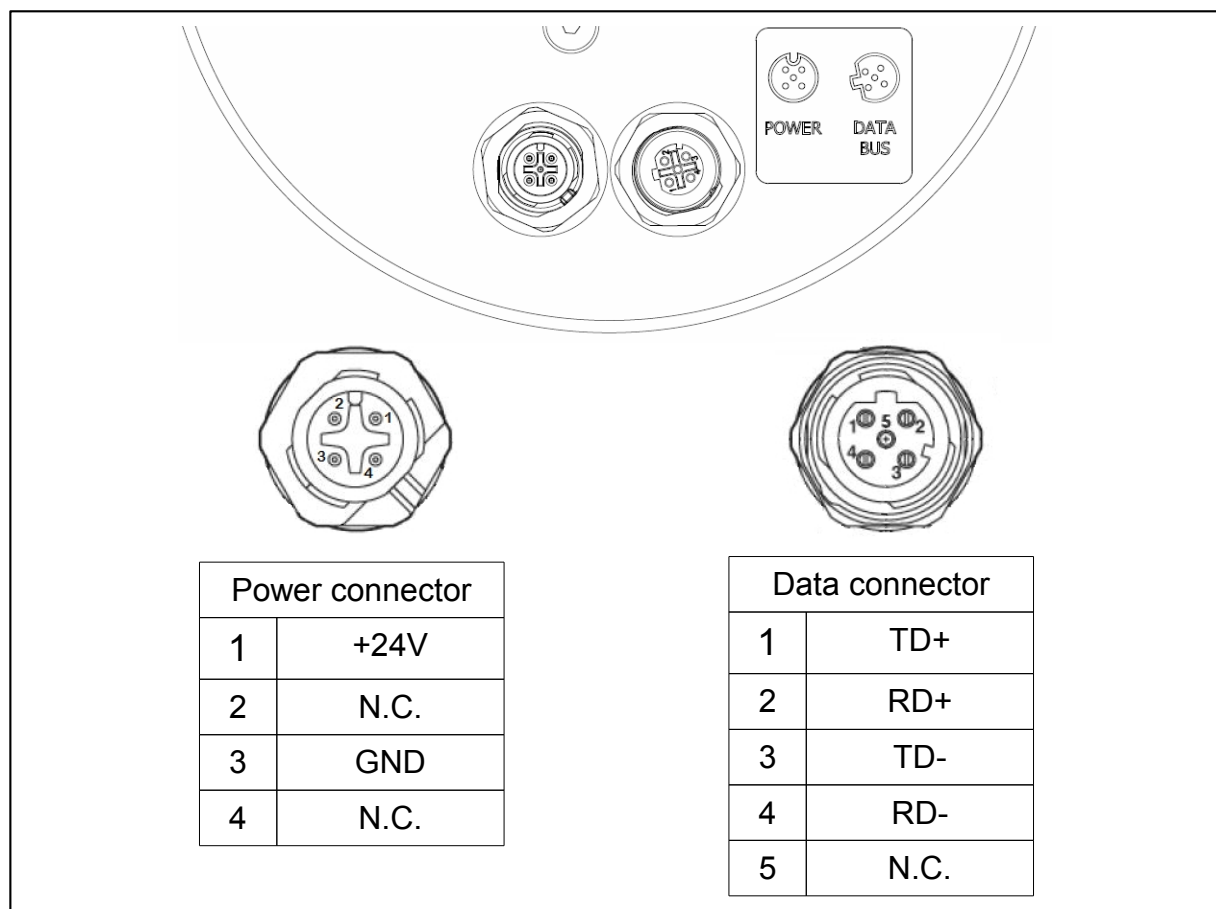
Connections

The module has four connectors: two power connectors marked POWER and two data bus connectors marked DATA BUS.
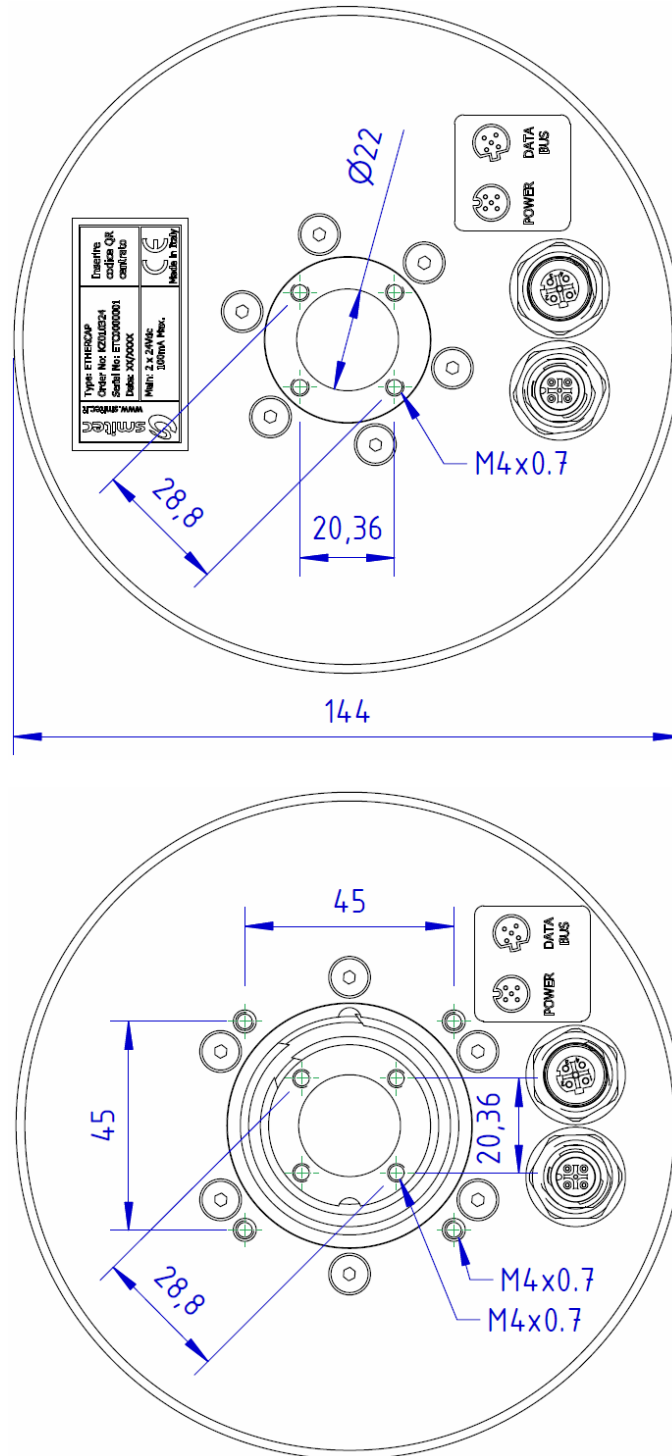
They are in couple arranged on top side of each half casing, allowing an easy "plug and play" of the module, and also a fast replacement of a faulty unit (in the illustration is represented only one side of module).

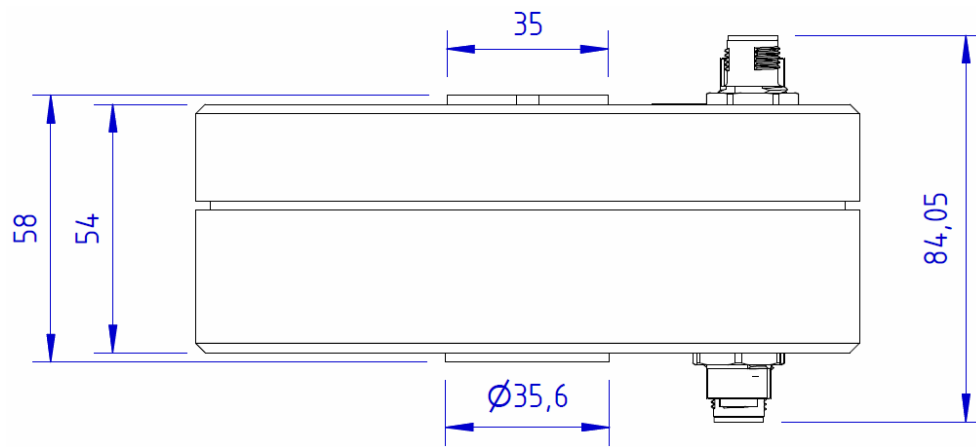The shells of connectors are electrically earthed .

Data bus wiring should be done using standard CAT 5E Ethernet cable and M12 D coded connectors.

Power connector	
1	+24V
2	N.C.
3	GND
4	N.C.

Data connector	
1	TD+
2	RD+
3	TD-
4	RD-
5	N.C.

Mechanical dimensions

Upper and bottom views w/o field installable connectors

Side view w/o field installable connectors