

INDUSTRIE ELEKTRIK

KOSTAL

INVEOR drive controllers Transport and logistics

Smart
connections.



INVEOR – transport and logistics

Compact, modular and robust ...

Product benefits at a glance



1 Robust design, durable electronics

- Use of foil capacitors means a long product lifetime
- Vibration-resistant thanks to aluminium die-cast casing and since electrolytic capacitors are not used
- Maintenance-free up to 7.5 kW due to fan-free design
- High protection class: IP65, for use out of doors too
- Expanded temperature range of -40°C to $+50^{\circ}\text{C}$ ($+60^{\circ}\text{C}$ with derating)

2 Modular concept

- Power electronics with basic fieldbus
- All common fieldbus modules available
- Cover area can be individually customised
- Equipment modules:
 - Main switch
 - Brake activation
 - Functional safety
 - I/O modules
 - Customer-specific PCBs can be integrated

3 Decentralised structure

- Reduced wiring work and costs
- No control cabinet needed
- Motor or wall mounting

4 Comprehensive communication interfaces

- CANopen, PROFIBUS, PROFINET, EtherCAT, Modbus RTU, Sercos III
- Various I/O configurations possible

5 Wireless commissioning/pluggable mechanics

- Rapid installation thanks to pluggable connections
- Simple commissioning with Bluetooth app, PC software, MMI
- Several devices can be looped in (daisy chain)

6 High system performance

- Supports all synchronous, synchronous reluctance and asynchronous motors with maximum energy efficiency
- 200 % overload
- Torque control
- Extended speed setting range

7 Broad voltage range input for AC/DC grids

- Flexible use in single- and 3-phase power grids as well as DC grids

This document does not replace the data sheet.

KOSTAL competence – smart connections



The KOSTAL brand promise – “Smart connections.”

The “Smart connections.” philosophy is the KOSTAL brand promise and is based on the KOSTAL Group’s vast experience.

KOSTAL is a global family-owned company, now in the fourth generation, with over 100 years of experience and comprehensive know-how in the development of high-quality electronic, electro-mechanical and mechatronic solutions for a wide range of automotive and industrial applications. Leading automotive manufacturers and numerous major industrial companies all over the world rely on the KOSTAL Group with its global workforce of 18 000 people.

For all KOSTAL partners, “Smart connections.” means a partnership with a down-to-earth and sound company, guaranteeing long-term trusting business relationships at all levels.

INVEOR – “Smart connections.” on all levels

The “Smart connections.” claim is not only the brand claim of KOSTAL Industrie Elektrik. It also stands for the philosophy behind the development of the INVEOR line of drive controllers.

With its modular structure, the INVEOR is designed to allow custom requirements to be easily met even with small or medium-sized quantities – without sacrificing the advantages of volume production. The principle we apply is “as much customisation as necessary, as much standardisation as possible”.

As a result, the INVEOR is universally usable and offers numerous ways of increasing efficiency in a wide range of industries.

At a more detailed level, it enables ideal adaptation to all interfaces in the application environment. In the areas of communication, operation and observation, motor adaptation, and control process, the KOSTAL drive controller can be customised to suit virtually all requirements. That’s what we call “Smart connections.”



INVEOR – “Smart connections.” on five levels

1 The INVEOR

- IP65 protection class
- Integrated soft PLC
- Pre-fitted cable glands
- Design without a fan
- Cover level and internal space for e.g. the customer to mount a switch
- 100 % of connections can be plugged in (Harting plug / Quickon)
- Optional slots
- Robust and vibration-resistant housing concept
- STO functional safety
- Internal PTC brake resistor

2 Communication

CANopen

PROFIBUS

EtherCAT

PROFINET

MODBUS RTU

SERCOS
the automation bus

Bluetooth

3 Operation and observation

- Potentiometer
- M12 RS485 service interface
- Main switch
- MMI handheld controller
- MMI cover option
- Touch operating terminal
- PC software: KOSTAL INVERTERpc
www.kostal-industrie-elektrik.com/KOSTAL_INVERTERpc
- App: KOSTAL INVERTERapp



4 Motor adaptations

- Robust and vibration-resistant adapter concept
- Motor adapter concept compatible with all commercially available motors

5 Control process

Supports all synchronous reluctance, synchronous and asynchronous motors with maximum energy efficiency

Overview of INVEOR M sizes



α

A

B

C

D



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