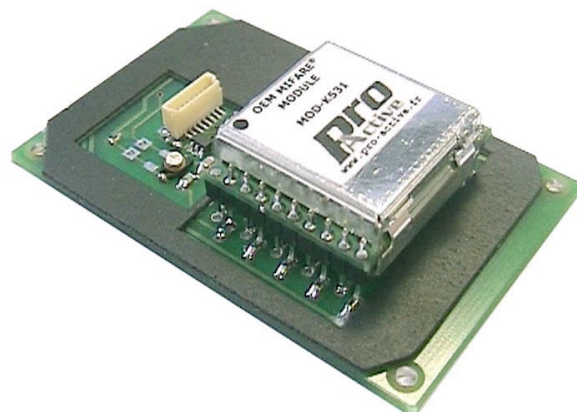


## ISO/IEC 14443 OEM CONTACTLESS READ/WRITE COUPLER

Pro-Active **K531-TTL** is an ISO/IEC 14443 contactless reader/writer, for OEM integration. **K531-TTL** features **K531** module mounted on an antenna, with RX/TX at TTL level.

**K531-TTL** reads and writes popular Philips MIFARE cards, as well as memory proximity tags from other manufacturers. As a versatile T=CL reader, **K531-TTL** is also suitable for use with any ISO/IEC 14443 layer 4 smartcards, including Philips DESFIRE cards.

Thanks to its asynchronous serial communication interface, **K531-TTL** is really easy to operate from any micro-controller or host computer.



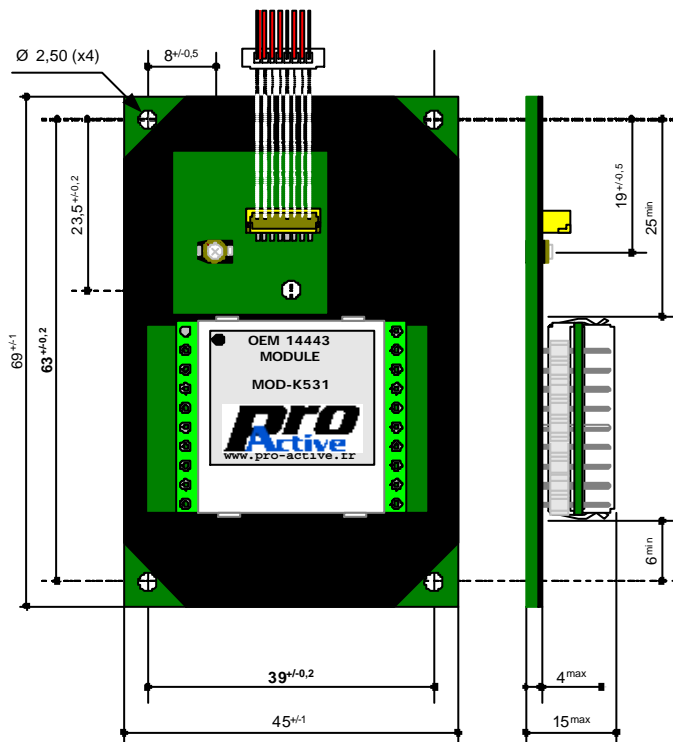
### Contactless interface

- Compliance : ISO/IEC 14443 A/B (1, 2, 3 and 4),
- T=CL protocol embedded in coupler's firmware (256-byte frames, multi-activation with CID),
- Work with any ISO/IEC 14443 A or B smartcard (Philips DESFire, ProX, SmartMX, Infineon SLE66, STMicroelectronics ST19, ...),
- Read / write Philips MIFARE Classic and UltraLight cards or tags ; CRYPTO1 cipher unit with secure key storage (MfRC531 chipset),
- Other cards support (Calypso, Jewel, SR176, ...) on request,
- 13.56MHz RFID transmission, 106kbps to 424kbps baudrate,
- Card operating distance : depends on card type and size ; 5cm typical, min 1cm, max 8cm.

### Electronics

- Small footprint antenna : 45mm x 69mm x 15mm,
- Ferrite shielding at the rear of the antenna,
- RX/TX pins (CMOS/TTL) for asynchronous serial communication (38400 or 115200bps, 8 data bits, 1 stop, no flow control),
- Power supply : 5V DC, 90mA typical,
- Extended temperature range (-20 to +80 °C).

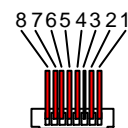
See K531' datasheet for complete specification (ref. PFT12010)



### Pinout

(fem. connector : JST SHR-08V-S-B)

EN : 8	4 : VCC (5V)
NMI : 7	3 : RXD (0/+5V)
Ground : 6	2 : TXD (0/+5V)
RESET : 5	1 : Ground



### Note :

**K531-TTL** replaces former **MOD-K531-232**.  
Please use this new reference when placing order.

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## TECHNICAL DATASHEET

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