

1 SENSOR  
INPUT

3 HOUSING  
OPTIONS

Every T24 transmitter module can be ordered in **one of three** IP rated enclosures.

To aid your work, they provide:

- Power Supply
- Water & Dust Protection
- Field Connectivity
- Ready-Made Mounting Solution

ACM



ACMi



ACMm



|  |  |   |  |  |  |  |  |
|--|--|---|--|--|--|--|--|
|  |  |   |  |  |  |  |  |
| Enclosure                                  | ACM                                      | ACMi  | ACMm                                     |  |  |  |  |
| Wireless range / m                         | 800 m (2,600 ft)                         |   | 500 m (1,600 ft)                         |  |  |  |  |
| Power supply                               | 5-18 Vdc or 2xD cell                     | 3 Vdc (2xAA)                                | 3 Vdc (2xAAA with BB1)                   |  |  |  |  |
| Battery life at 1 transmission per second* | 1 year                                   | 5 months                                    | 2 months                                 |  |  |  |  |
| Antenna                                    | ANTA                                     | ANTA  | PCB Printed                              |  |  |  |  |
| Radio frequency                            | 2.4 GHz                                  |   |  |  |  |  |  |
| Operating temperature /°C                  | -20 to +55                               | -20 to +55                                  | -20 to +55                               |  |  |  |  |
| Environmental protection                   | IP67                                     |   | IP50                                     |  |  |  |  |
| Module size / mm                           | 164 x 84 x 57                            | 80 x 62 x 34                                | 76 x 35 x 20                             |  |  |  |  |
| Software & configuration                   | T24 Toolkit & T24LOG100                  |   |  |  |  |  |  |
| Input modules (determined by order code)   | SA<br>Strain                             | SA f<br>Strain(2kHz)                        | IA<br>Current                            | VA<br>Voltage                            | TA<br>Temperature                        | PA<br>Pulse                              | RA<br>Potentiometer                      |
| Order codes:                               | T24-ACM-SA<br>T24-ACMi-SA<br>T24-ACMm-SA | T24-ACM-SAF<br>T24-ACMi-SAF<br>T24-ACMm-SAF | T24-ACM-IA<br>T24-ACMi-IA<br>T24-ACMm-IA | T24-ACM-VA<br>T24-ACMi-VA<br>T24-ACMm-VA | T24-ACM-TA<br>T24-ACMi-TA<br>T24-ACMm-TA | T24-ACM-PA<br>T24-ACMi-PA<br>T24-ACMm-PA | T24-ACM-RA<br>T24-ACMi-RA<br>T24-ACMm-RA |

\*For more information please refer to the T24 Acquisition Module Battery Life Calculator

# T24 Telemetry User Manual

mantracourt.com



## T24

Wireless Telemetry

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# T24-ACM-VA, T24-ACMi-VA, T24-ACMm-VA, T24-VAe, T24-VAi

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## Overview

The T24-VA module provides wireless voltage measurement for an input range of 0 to 10 volts. Suitable for a range of 0-10 V sensors including pressure, inclinometer, accelerometer, temperature & displacement. Provides 5 V sensor power.

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## Order Codes

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### T24-VAe



Voltage transmitter module with external antenna UFL connector.

### T24-VAi



Voltage transmitter module with integral antenna.

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### T24-ACM-VA



Voltage transmitter module mounted in large weatherproof enclosure with battery holder for two D cell alkaline batteries. Also has ability to be powered from external supply voltage.

### T24-ACMi-VA



Voltage transmitter module mounted in medium weatherproof enclosure with battery holder for two AA batteries.

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### T24-ACMm-VA



Voltage transmitter module mounted in small enclosure with screw terminals to connect external 3V power supply.

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## Connections

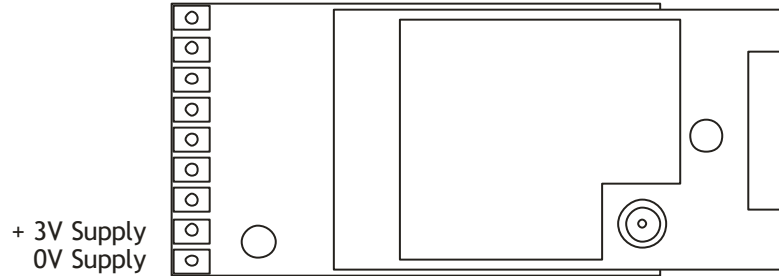
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### T24-VAe, T24-VAi

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#### Power

Attach power supply wiring to the module as shown below:



Connect to a 3 Volt power supply or batteries.



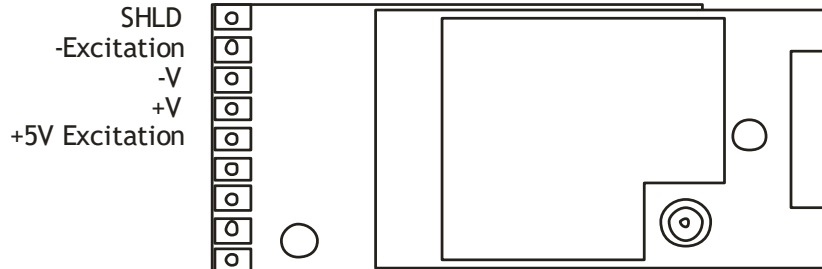
This module is **not** reverse polarity protected!  
The maximum voltage is 3.6V!

For battery information please refer to [Appendix D – Battery Selection](#)

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#### Sensor

Voltage input connected as follows:

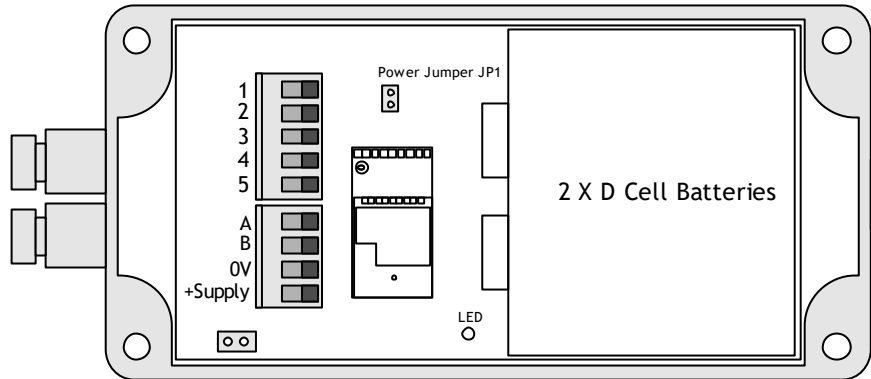


## T24-ACM-VA

### Power

Power can be supplied by fitting two D cell alkaline 1.5 V batteries or the module can be supplied from an external 5 Vdc to 18 Vdc source.

In both cases you need to fit the JP1 power jumper to supply power to the transmitter module. When powered from the external DC source the LED will illuminate.



For battery information please refer to [Appendix D – Battery Selection](#)

### Sensor

The voltage input is connected to the module via a 2 part screw terminal block.

| Screw Terminal | Function        |
|----------------|-----------------|
| 1              | +5 V Excitation |
| 2              | +V              |
| 3              | -V              |
| 4              | -Excitation     |
| 5              | Shield          |
| A              |                 |
| B              |                 |

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## T24-ACMi-VA

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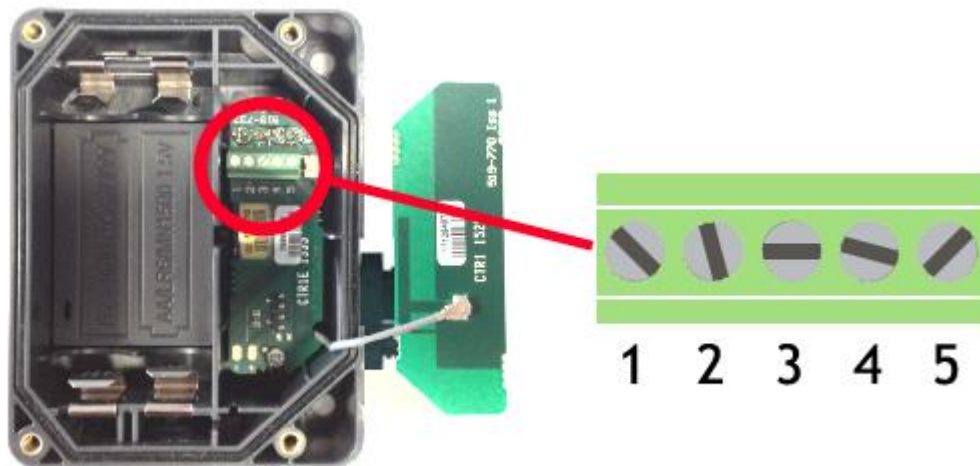
### Power

The enclosure is designed to accept two AA batteries. Maximum voltage 1.8V per cell.

For battery information please refer to [Appendix D – Battery Selection](#)

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### Sensor



The input connections are accessed by lifting the right hand cover plate, this plate incorporates the T24-ACMi Antenna; take extra care when re-assembling that the grey UHF cable is attached to the antenna socket.

| Screw Terminal | Function         |
|----------------|------------------|
| 1              | Shield           |
| 2              | -Excitation      |
| 3              | -V in            |
| 4              | +V in            |
| 5              | + 5 V Excitation |

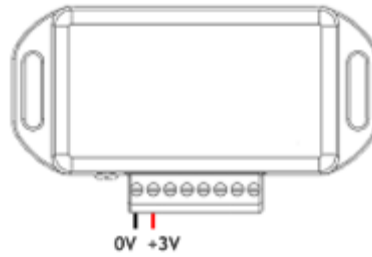
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## T24-ACMm-VA

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### Power

Power is supplied by connecting a 3V supply to the

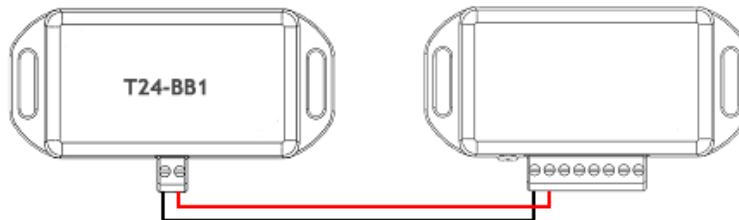


**!** There is no reverse polarity protection.

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### Connecting T24-BB1

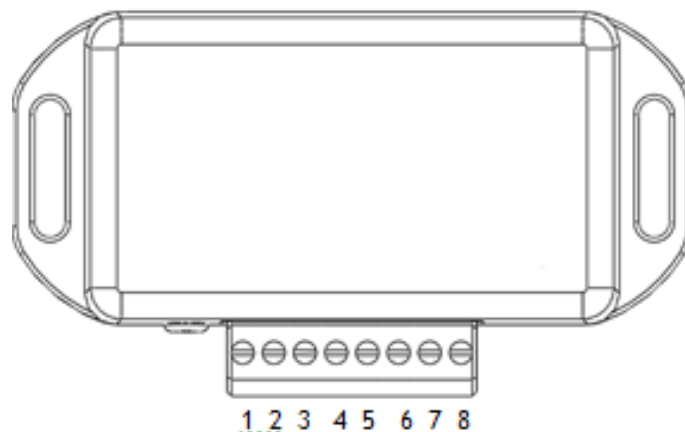
Power to transmitter modules in this enclosure can also be supplied by a T24-BB1 battery box which contains two AA 1.5 V batteries.



For battery information please refer to [Appendix D – Battery Selection](#)

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### Sensor



| Screw Terminal | Function        |
|----------------|-----------------|
| 5              | -Excitation     |
| 6              | -V in           |
| 7              | +V in           |
| 8              | +5 V Excitation |

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# T24-ACM-IA, T24-ACMi-IA, T24-ACMm-IA, T24-IAe, T24-IAi

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## Overview

The T24-IA module provides wireless current measurement for an input range of 0-20 mA. Suitable for a range of 4-20 mA sensors such as pressure, inclinometer, accelerometer, temperature & displacement.

Provides 5 V sensor power.

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## Order Codes

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### T24-IAe



Current transmitter module with external antenna UFL connector.

### T24-IAi



Current transmitter module with integral antenna.

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### T24-ACM-IA



Current transmitter module mounted in large weatherproof enclosure with battery holder for two D cell alkaline batteries. Also has ability to be powered from external supply voltage.

### T24-ACMi-IA



Current transmitter module mounted in medium weatherproof enclosure with battery holder for two AA batteries.

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### T24-ACMm-IA



Current transmitter module mounted in small enclosure with screw terminals to connect external 3 V power supply.

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## Connections

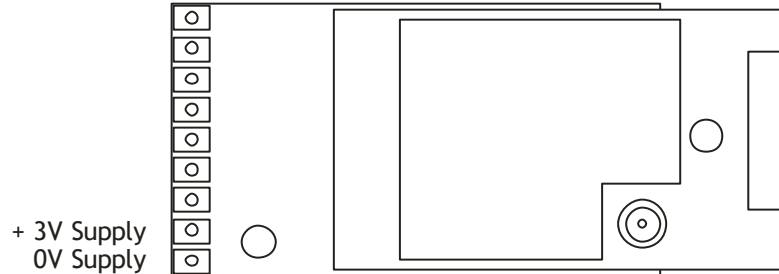
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### T24-IAe, T24-IAi

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#### Power

Attach power supply wiring to the module as shown below:



Connect to a 3 V power supply or batteries.



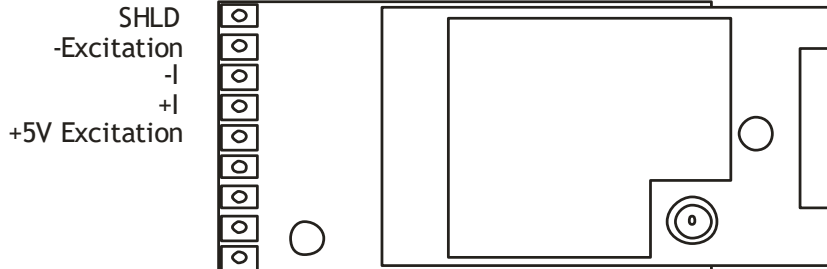
This module is **not** reverse polarity protected!  
The maximum voltage is 3.6 V!

For battery information please refer to [Appendix D – Battery Selection](#)

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#### Sensor

Voltage input connected as follows:



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### T24-ACM-IA

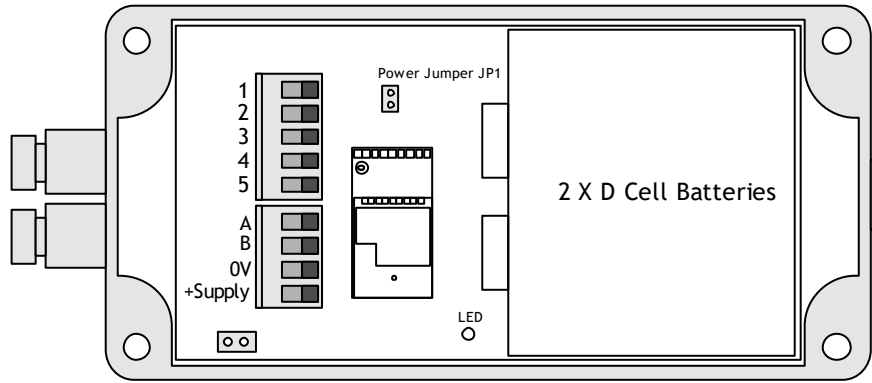
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#### Power

Power can be supplied by fitting two D cell alkaline 1.5 V batteries or the module can be supplied from an external 5 Vdc to 18 Vdc source.

In both cases you need to fit the JP1 power jumper to supply power to the transmitter module.

When powered from the external DC source the LED will illuminate.



For battery information please refer to [Appendix D – Battery Selection](#)

### Sensor

The current input is connected to the module via a 2 part screw terminal block.

| Screw Terminal | Function        |
|----------------|-----------------|
| 1              | +5 V Excitation |
| 2              | +I              |
| 3              | -I              |
| 4              | -Excitation     |
| 5              | Shield          |
| A              |                 |
| B              |                 |

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## T24-ACMi-IA

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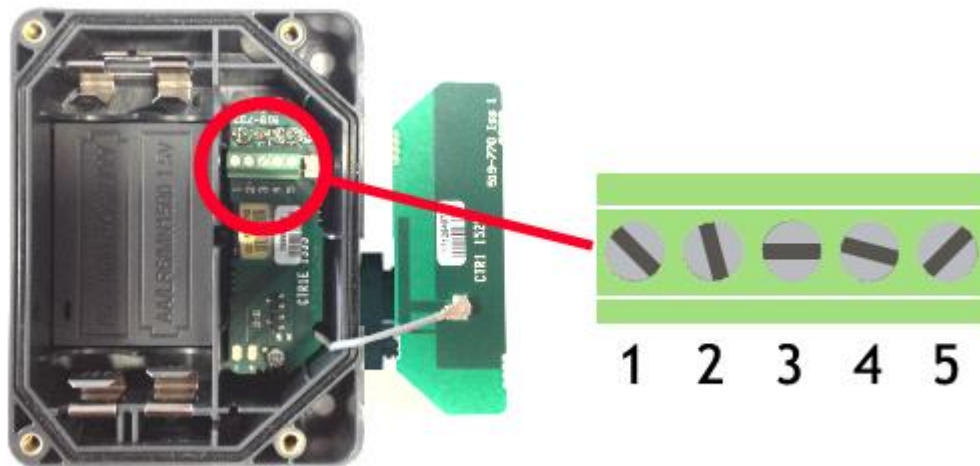
### Power

The enclosure is designed to accept two AA batteries. Maximum voltage 1.8 V per cell.

For battery information please refer to [Appendix D – Battery Selection](#)

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### Sensor



The input connections are accessed by lifting the right hand cover plate, this plate incorporates the T24-ACMi Antenna; take extra care when re-assembling that the grey UHF cable is attached to the antenna socket.

| Screw Terminal | Function         |
|----------------|------------------|
| 1              | Shield           |
| 2              | -Excitation      |
| 3              | -I in            |
| 4              | +I in            |
| 5              | + 5 V Excitation |

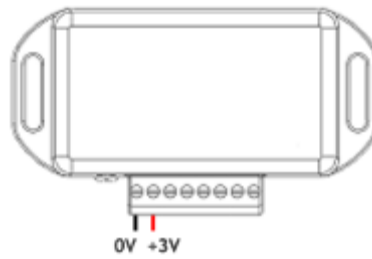
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## T24-ACMm-IA

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### Power

Power is supplied by connecting a 3V supply to the

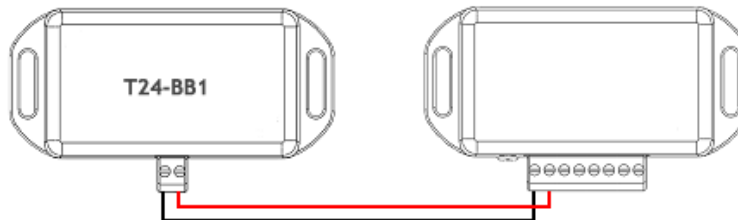


**!** There is no reverse polarity protection.

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### Connecting T24-BB1

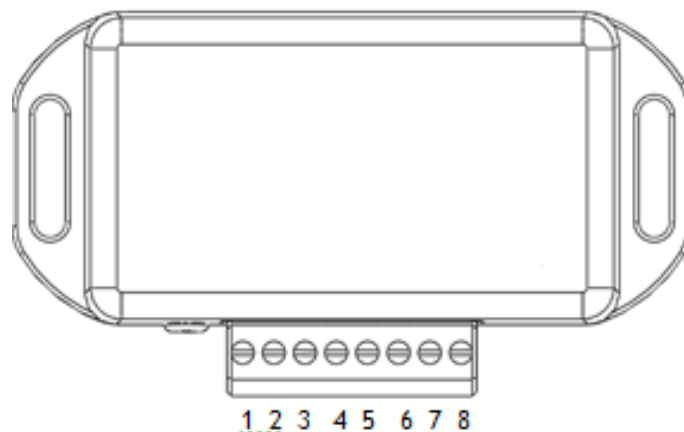
Power to transmitter modules in this enclosure can also be supplied by a T24-BB1 battery box which contains two AA 1.5 V batteries.



For battery information please refer to [Appendix D – Battery Selection](#)

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### Sensor



| Screw Terminal | Function        |
|----------------|-----------------|
| 5              | -Excitation     |
| 6              | -I in           |
| 7              | +I in           |
| 8              | +5 V Excitation |

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**Ex X24**



**ATEX / IECEx Wireless  
Sensor System**

**T24**

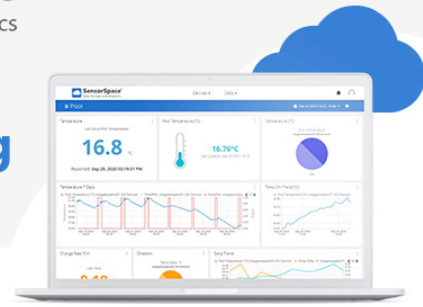


**Wireless Telemetry  
Sensor System**

**SensorSpace®**  
Data Storage and Analytics

**Cloud  
Monitoring  
24/7**

**Transmit to  
the cloud**



Document Title: **T24 Telemetry User Manual**  
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*In the interests of continued product development, Mantracourt Electronics Limited reserves the right to alter product specifications without prior notice.*



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Änderungen vorbehalten