

# Central Processing Unit of the MIREL RM1 Speed Recorder

## Type **RM1ZJ**

Illustrative picture

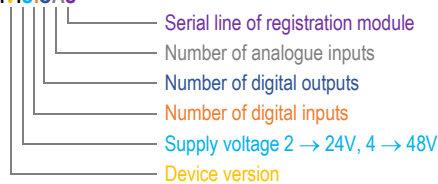
The central processing unit functionally assures all the operating functionalities of the MIREL RM1 speed recorder: measuring and filtering the instantaneous speed from the impulse rotation sensor (measuring speed, distance travelled and assessment of direction), archiving of required data (in version 0 and 1), sensing inputs and generating outputs to the speed recorder, communication with indication and identification units at engineer stations, self-diagnostics and diagnostic test and indication on the front panel. The central processing unit in versions 0 and 1 contains the archiving module, which is installed inside a resistant liner used to secure increased protection from mechanical damage. The archiving module is not removed from the central processing unit during normal operations. The content of the archiving module are read using the 15-pin connector on the front panel of the central processing unit.

Central unit in version 2 has an externally wired registration module and readout is carried out via USB connector piece on central unit's front panel.



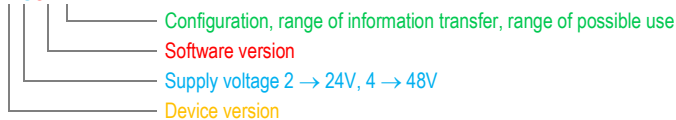
### Nomenclature

RM1ZJ.V.UIOAS <sup>1)</sup>



<sup>1)</sup> nomenclature applies to device version 0.

RM1ZJ.V.U.SWK <sup>2)</sup>



<sup>2)</sup> nomenclature applies to device versions 1 and 2U.

### Modifications

System MIREL RM2 is recommended for new applications, see document 1988RM2 Catalogue sheet.

### Modifications prepared for new applications

Designation	Supply voltage [VDC]	Software version	Configuration <sup>1)</sup>	Analogue input	Note
RM1ZJ.2U.205A	24	05	A	4 ÷ 20 mA	WF1078
RM1ZJ.2U.405A	48	05	A	0 ÷ 10 V	WF1000

<sup>1)</sup> configuration, range of information transfer, range of possible use

## Device version

Designation	Description	Dimension W x H x D [mm]	Weight [kg]	Archive capacity [MB]
0	Basic design	446 x 112 x 297	5,2	8
1	Design with extended memory of processor and registration module	446 x 112 x 297	5,2	16 000
2U	Design in BOXKOG construction system	132 x 129x 227	1,6	-

## Configuration, range of information transfer, range of possible use

Designation	Number of digital inputs	Number of digital outputs	Number of analogue inputs	Number of RS485 serial lines
A	16	8	1	2
B	16	4	1	2
C	8	4	1	2
D	8	4	0	2
E	16	0	0	2
F	16	4	0	2
G	8	0	0	2

## Cable interlinks and adapter pieces

Designation	Description	Note
REDKZ.1.RM1A	Adapter piece of RM1ZJ.2 connection to original installation cabling via DD connector piece	
RM1SK.2.AR	Interconnection cable for connection of archiving unit RM1AR.2 to RM1ZJ.2	
RM1SK.2.B1	SPI interconnection cable between RM1ZJ.2 and VZ1ZJ.1	

## Specifications

The Catalogue sheet was prepared on the basis of the following specifications:

Number	Version	Title
297RM1	221011	Technical conditions
1598RM1	190515	Installation manual
481M	230322	ZJ Installation conditions
2468M	230222	BOXKOG Installation conditions
357RM1	230306	Operating manual
278RM1	230306	Maintenance manual, diagnostics

## Usage

MIREL RM1 – registration speedometer

### Modifications not recommended for new applications

Designation	Supply voltage [VDC]	Software version	Configuration <sup>1)</sup>	Analogue input	Replacement <sup>2)</sup>
<b>RM1ZJ.1.205A</b>	24	05	A	4 ÷ 20 mA	RM1ZJ.2U.205A
<b>RM1ZJ.1.405A</b>	48	05	A	0 ÷ 10 V	RM1ZJ.2U.405A

<sup>1)</sup> configuration, range of information transfer, range of possible use

<sup>2)</sup> MIREL RM2 is recommended for new applications, see document 1988RM2 Catalogue sheet

## End-of-Life modifications

Designation	Supply voltage [VDC]	Number of digital inputs	Number of digital outputs	Number of analogue inputs	Serial line of registration module	Replacement
RM1ZJ.0.2840	24	8	4	0	–	RM1ZJ.1.205D <sup>1)</sup>
RM1ZJ.0.2840M	24	8	4	0	✓	RM1ZJ.1.205D <sup>1)</sup>
RM1ZJ.0.2G00	24	16	0	0	–	RM1ZJ.1.205E <sup>1)</sup>
RM1ZJ.0.2G40	24	16	4	0	–	RM1ZJ.1.205F <sup>1)</sup>
RM1ZJ.0.2G40M	24	16	4	0	✓	RM1ZJ.1.205F <sup>1)</sup>
RM1ZJ.0.2G41	24	16	4	1	–	RM1ZJ.1.205B <sup>1)</sup>
RM1ZJ.0.2G41M	24	16	4	1	✓	RM1ZJ.1.205B <sup>1)</sup>
RM1ZJ.0.2G81M	24	16	8	1	✓	RM1ZJ.1.205A <sup>1)</sup>
RM1ZJ.0.2G82	24	16	8	2	–	–
RM1ZJ.0.480M	48	8	0	0	✓	RM1ZJ.1.405G <sup>1)</sup>
RM1ZJ.0.4G40	48	16	4	0	–	RM1ZJ.1.405F <sup>1)</sup>
RM1ZJ.0.4G40M	48	16	4	0	✓	RM1ZJ.1.405F <sup>1)</sup>
RM1ZJ.0.4G41	48	16	4	1	–	RM1ZJ.1.405B <sup>1)</sup>
RM1ZJ.0.4G41M	48	16	4	1	✓	RM1ZJ.1.405B <sup>1)</sup>
RM1ZJ.0.4G81	48	16	8	1	–	RM1ZJ.1.405A <sup>1)</sup>
RM1ZJ.0.4G81M	48	16	8	1	✓	RM1ZJ.1.405A <sup>1)</sup>
RM1ZJ.1.205B	24	16	4	1	✓	RM1ZJ.1.205A
RM1ZJ.1.205D	24	8	4	0	✓	RM1ZJ.1.205A
RM1ZJ.1.205E	24	16	0	0	✓	RM1ZJ.1.205A
RM1ZJ.1.205F	24	16	4	0	✓	RM1ZJ.1.205A
RM1ZJ.1.405B	48	16	4	1	✓	RM1ZJ.1.405A
RM1ZJ.1.405C	48	8	4	1	✓	RM1ZJ.1.405A
RM1ZJ.1.405F	48	16	4	0	✓	RM1ZJ.1.405A
RM1ZJ.1.405G	48	8	0	0	✓	RM1ZJ.1.405A

<sup>1)</sup> after upgrade on Central Processing Unit from RM1ZJ.0 to RM1ZJ.1 , which is part system upgrade from RM1.0 to RM1.1