

ISO 16844-3:2022-05 (E)

Road vehicles - Tachograph systems - Part 3: Motion sensor communication interface

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	2
5 Connector	4
5.1 Dimensions and pin allocation	4
5.2 Electrical specification	4
5.2.1 Electrical requirements	4
5.2.2 Block diagram data signal, in/out	5
5.2.3 Voltage monitoring and watchdog signal	6
5.2.4 Block diagram of the speed signal, real-time	7
6 Cable	8
7 Interface protocol	9
7.1 Transmission	9
7.1.1 Bit rate and frame structure	9
7.1.2 Frame specification	9
7.1.3 State diagram -- Communication and execution of instructions	11
7.2 Motion sensor state at the end of production	12
7.3 Instructions	12
7.4 Initialisation of communication between motion sensor and recording equipment	13
7.4.1 General	13
7.4.2 Necessary sequence of instruction for pairing	13
7.4.3 Pairing initialisation of recording equipment and motion sensor	14
7.4.4 Transmission of encrypted serial number of motion sensor	14
7.4.5 Transmission of session key from recording equipment to motion sensor	15
7.4.6 Transmission of pairing information from recording equipment to motion sensor	15
7.4.7 Request from recording equipment for pairing information and authentication to motion sensor	16
7.5 Communication of motion sensor and recording equipment in regular use	16
7.5.1 Sequence of instruction for communication in regular use	16
7.5.2 Latch of counter value and encrypt data	17
7.5.3 Transmission of encrypted data	18
7.6 Read information	19
7.6.1 Necessary sequence of instruction for reading information	19
7.6.2 Request	19
7.6.3 General message structures	20
7.6.4 Data block chaining	21
7.6.5 Structures of selected data	21
7.6.6 Pairing data	24
8 Optional functionality	25

8.1	Additional direction information in the MF byte	25
Bibliography	26