

DIN EN 13757-3:2018-06 (E)

Communication systems for meters - Part 3: Application protocols

Contents		Page
	European foreword	4
	Introduction	6
1	Scope	6
2	Normative references	8
3	Terms and definitions	8
4	Abbreviations and symbols	9
4.1	Abbreviations	9
4.2	Symbols	10
5	Selection of an application protocol	10
6	M-Bus protocol	10
6.1	General	10
6.2	M-Bus data record	11
6.3	Data Information Block (DIB)	11
6.4	Value Information Block (VIB)	15
6.5	Manufacturer specific unstructured data block	27
7	Application reset and application select	28
7.1	Application reset	28
7.2	Application select with subcode	28
7.3	Overview about CI-Fields for Application reset and Application select	30
7.4	Rules for application selection	31
7.5	Rules for block selection	32
7.6	Selected application block in M-Bus Application protocol	32
8	Clock synchronization	32
9	Report of alarm status (slave to master)	33
10	Report of application error	33
10.1	General	33
10.2	Status field	33
10.3	General application layer errors	33
11	Switching baud rate for M-Bus link layer according to EN 13757-2	34
12	Synchronize action	35
13	Manufacturer specific protocols	35
14	Other application protocols	35
15	Image transfer	35
	Annex A (normative) Coding of data records	36

Annex B (normative) Interpretation of hex-codes Ah-Fh in BCD-data fields	44
B.1 General description standard reference	44
B.2 Definition	44
Annex C (normative) VIF coding for special units	45
C.1 Non-metric units	45
C.2 Plain text units	45
C.3 Remote enablement/disablement of valve/breaker	46
Annex D (informative) Alarm protocol	47
D.1 M-Bus according EN 13757-2	47
D.2 Wireless M-Bus according to EN 13757-4	47
Annex E (informative) Special sequences for M-Bus devices	48
E.1 VIF/VIFE/VIFE = FDh 97h 1Dh (error flag)	48
E.2 VIF/VIFE/VIFE = FDh 9Fh 1Dh for passing remote control on a node	50
E.3 Clock synchronization	51
Annex F (normative) Transmission of profiles	53
F.1 The standard load profile	53
F.2 The M-Bus compact profile	53
Annex G (normative) Compact M-Bus frame	59
G.1 General	59
G.2 CI-fields of the Full and the Compact M-Bus frame	59
G.3 Calculation of the Full-Frame-CRC	61
G.4 Calculation of the Format Signature	61
G.5 Frame examples	61
Annex H (normative) Translating M-Bus type record descriptors to OBIS-type record descriptors ...	64
H.1 General	64
H.2 Translation of predefined data record types	64
H.3 Online addition of an entry for the M-Bus to OBIS conversion table	82
Annex I (normative) Image Transfer	83
I.1 Image Transfer Phases	83
I.2 Commands for Image Transfer	85
I.3 Overview Image Transfer	101
Bibliography	104