

ISO 22510:2019-11 (E)

Open data communication in building automation, controls and building management - Home and building electronic systems - KNXnet/IP communication

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Abbreviated terms	4
5	Requirements	5
5.1	Overview	5
5.1.1	KNXnet/IP document parts	5
5.1.2	Mandatory and optional implementation of IP protocols	7
5.2	Core	8
5.2.1	Use	8
5.2.2	KNXnet/IP frames	9
5.2.3	Host protocol independence	10
5.2.4	Discovery and self description	11
5.2.5	Communication channels	13
5.2.6	General implementation guidelines	15
5.2.7	Data Packet structures	19
5.2.8	IP Networks	38
5.2.9	Minimum supported services	47
5.3	Device management specification	48
5.3.1	Use	48
5.3.2	KNXnet/IP device management	48
5.3.3	Implementation rules and guidelines	59
5.3.4	Data packet structures	60
5.3.5	Minimum profiles	63
5.4	Tunnelling	64
5.4.1	Use	64
5.4.2	Tunnelling of KNX telegrams	64
5.4.3	Configuration and management	68
5.4.4	Frame structures	70
5.4.5	Minimum profiles	77
5.5	Routing	78
5.5.1	Use	78
5.5.2	KNXnet/IP routing of KNX telegrams	78
5.5.3	Implementation rules and guidelines	88
5.5.4	Configuration and management	91
5.5.5	Data packet structures	91
5.5.6	Minimum profiles	93
5.6	Remote diagnosis and configuration	94
5.6.1	Use	94
5.6.2	Remote diagnosis of KNXnet/IP devices	95
5.6.3	Configuration and management	95
5.6.4	Data packet structures	96
5.6.5	Certification	101

5.7	Secured communication	101
5.7.1	Use	101
5.7.2	Stack and communication	102
5.7.3	Management procedures	143
5.7.4	Synchronizing timers	146
Annex A (normative) List of codes		148
Annex B (informative) Binary examples of KNXnet/IP frames		155
Annex C (normative) KNXnet/IP parameter object		175
Annex D (normative) Common external messaging interface (cEMI)		178
Annex E (normative) Coupler resources		210
Bibliography		221