ISO/IEC TR 29106

Edition 1.0 2019-07

TECHNICAL REPORT

AMENDMENT 2

Information technology – Generic cabling – Introduction to the MICE environmental classification

ISO/IEC TR 29106:2007-11/AMD2:2019-07(en)

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FOREWORD

Amendment 2 to ISO/IEC TR 29106 has been prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The text of this amendment is based on the following documents:

DTR	Report on voting
JTC1-SC25/2836/DTR	JTC1-SC25/2853/RVDTR

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

2 Reference documents

Delete the following references:

ISO/IEC 11801, *Information technology – Generic cabling for customer premises*

ISO/IEC 15018, *Information technology – Generic cabling for homes*

ISO/IEC 24702, *Information technology – Generic cabling – Industrial premises*

Add the following new references:

ISO/IEC 11801-1:2017, *Information technology – Generic cabling for customer premises – Part 1: General requirements*

ISO/IEC 11801-2, *Information technology – Generic cabling for customer premises – Part 2: Office premises*

ISO/IEC 11801-3, *Information technology – Generic cabling for customer premises – Part 3: Industrial premises*

ISO/IEC 11801-4, *Information technology – Generic cabling for customer premises – Part 4: Single-tenant homes*

ISO/IEC 11801-5, *Information technology – Generic cabling for customer premises – Part 5: Data centres*

ISO/IEC 11801-6, *Information technology – Generic cabling for customer premises – Part 6: Distributed building services*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

Replace the paragraph with the following new paragraph:

For the purposes of this document, the terms and definitions of the applicable parts of ISO/IEC 11801 apply.

3.2 Abbreviations

Replace the paragraph with the following new paragraph:

For the purposes of this document, the abbreviations of the applicable parts of ISO/IEC 11801 apply.

4 Application of environmental classification

4.3 Component selection

In the second paragraph, replace:

"Table 1, taken from ISO/IEC 24702:2006, shows …"

with:

"Table 1, taken from ISO/IEC 11801-1:2017, shows …".

Table 1 – Details of environmental classification

Replace Table 1 with the following new table:

Mechanical	M_1	M_2	M_3
Shock/bump[a]			
Peak acceleration	40 ms^{-2}	100 ms^{-2}	250 ms^{-2}
Vibration			
Displacement amplitude (2 Hz to 9 Hz)	1,5 mm	7,0 mm	15,0 mm
Acceleration amplitude (9 Hz to 500 Hz)	5 ms^{-2}	20 ms^{-2}	50 ms^{-2}
Tensile strength	[b]	[b]	[b]
Crush	45 N over 25 mm (linear) min.	1 100 N over 150 mm (linear) min.	2 200 N over 150 mm (linear) min.
Impact	1 J	10 J	30 J
Bending, flexing and torsion	[b]	[b]	[b]

Ingress	**I_1**	**I_2**	**I_3**
Particulate ingress (max. diameter)	12,5 mm	50 µm	50 µm
Immersion	None	Intermittent liquid jet ≤ 12,5 l/min ≥ 6,3 mm jet > 2,5 m distance	Intermittent liquid jet ≤ 12,5 l/min ≥ 6,3 mm jet > 2,5 m distance and immersion (≤ 1 m for ≤ 30 min)
Climatic and chemical	**C_1**	**C_2**	**C_3**
Ambient temperature	−10 °C to +60 °C	−25 °C to +70 °C	−40 °C to +70 °C
Rate of change of temperature	0,1 °C per minute	1,0 °C per minute	3,0 °C per minute
Humidity	5 % to 85 % (non-condensing)	5 % to 95 % (condensing)	5 % to 95 % (condensing)
Solar radiation	700 Wm^{-2}	1 120 Wm^{-2}	1 120 Wm^{-2}
Liquid pollution[c] Contaminants	Concentration × 10^{-6}	Concentration × 10^{-6}	Concentration × 10^{-6}
Sodium chloride (salt/sea water)	0	< 0,3	< 0,3
Oil (dry-air concentration) (for oil types see [b])	0	< 0,005	< 0,5
Sodium stearate (soap)	None	> 5 × 10^4 aqueous non-gelling	> 5 × 10^4 aqueous gelling
Detergent	None	ffs	ffs
Conductive materials	None	Temporary	Present
Gaseous pollution[c] Contaminants	Mean / Peak (Concentration × 10^{-6})	Mean / Peak (Concentration × 10^{-6})	Mean / Peak (Concentration × 10^{-6})
Hydrogen sulphide	< 0,003 / < 0,01	< 0,05 / < 0,5	< 10 / < 50
Sulphur dioxide	< 0,01 / < 0,03	< 0,1 / < 0,3	< 5 / < 15
Sulphur trioxide (ffs)	< 0,01 / < 0,03	< 0,1 / < 0,3	< 5 / < 15
Chlorine wet (> 50 % humidity)	< 0,000 5 / < 0,001	< 0,005 / < 0,03	< 0,05 / < 0,3
Chlorine dry (< 50 % humidity)	< 0,002 / < 0,01	< 0,02 / < 0,1	< 0,2 / < 1,0
Hydrogen chloride	– / < 0,06	< 0,06 / < 0,3	< 0,6 / 3,0
Hydrogen fluoride	< 0,001 / < 0,005	< 0,01 / < 0,05	< 0,1 / < 1,0
Ammonia	< 1 / < 5	< 10 / < 50	< 50 / < 250
Oxides of nitrogen	< 0,05 / < 0,1	< 0,5 / < 1	< 5 / < 10
Ozone	< 0,002 / < 0,005	< 0,025 / < 0,05	< 0,1 / < 1