
L3G 06.03.B – ATEX Richtlijn, Bijlage 10 ATEX Simple Apparatus

Doel

Dit document wordt gebruikt als aanvulling op de inspectiesheets, voor het uitvoeren van inspecties van apparatuur in het kader van de ATEX-regelgeving.















Simple Apparatus







In explosiegevaarlijke gebieden wordt veel equipment gebruikt waarvan het moeilijk vast te stellen is of dit eventueel een ontstekbron kan zijn.





De Europese 'ATEX working group' heeft onder de ATEX 114 directive (2014/34/EU) een overzicht gemaakt van veel voorkomend equipment. Het overzicht is niet uitputtend, maar is wel een goed toepasbaar referentiedocument.

Bron: ATEX 2014/34/EU guidelines 3rd edition, May 2020

Products	Scope of 2014/34/EU (El. = Electrical)	Examples of products	Comments
Equipment			
Automatic lubrication systems	Yes (El.)		Yes, if it is a battery supplied system and has one or more electrical battery cells above the values specified in "Simple apparatus" clause of EN 60079-11 and if the other criteria for simple apparatus are not met.
Clockworks	-		See § 38 in the ATEX Guidelines ("Simple" products).
Computers	Yes (El.)		
Simple earthing clamps with and without cord	No		"Simple earth clamps" are clamps with a single earth connection. The clamp shall provide evidence that it is actually making contact. No own source of ignition, and for additional considerations, see note 2.
Complex earthing clamps with and without cord	Yes (El.)		The clamp shall provide evidence that it is actually making contact. Potential ignition sources cannot be excluded according to the ignition hazard assessment.
Electrical motors	Yes (El.)		Electrical equipment with potential ignition sources like heat and sparks of electrical origin (e.g. windings, connections) and mechanical origin (e.g. bearings).
Electrical pump with integrated electrical motor (e.g. canned or split tube motor pump, petrol pump/dispensers for petrol filling)	Yes (El.)		Electrical equipment with potential ignition sources like heat and sparks of electrical origin (e.g. motor circuit) and mechanical origin (e.g. pump impeller). Static discharge may occur while pumping/filling in progress.
Electrical fan with integrated electrical motor (e.g. electrical axial fan)	Yes (El.)		Electrical equipment with potential ignition sources like heat and sparks of electrical origin (e.g. motor circuit) and mechanical origin (e.g. fan blades).
Non-electrical fan with integrated air motor (e.g. non-electrical axial fan)	Yes (Non-el.)		Non-electrical equipment with potential ignition sources like frictional heat and sparks of mechanical origin (e.g. bearings, fan blades).
Hand operated valves	No		See section § 38 in the ATEX Guidelines ("Simple" products).
Heating cables	Yes (El.)		Heating cables transform electricity into heat while cables "only" transports electricity. Heating cables may also be components, e.g. heating cables for controlled design applications as part of trace heating systems.
Mechanical brakes	Yes (Non-el.)		Non-electrical equipment with potential ignition sources like frictional heat of mechanical origin.
Mechanical gears	Yes (Non-el.)		Non-electrical equipment with potential ignition sources like frictional heat and sparks of mechanical origin.
Phones and similar equipment e.g. walkie-talkies, head phones etc.	Yes (El.)		Electrical equipment with potential ignition sources like heat and sparks of electrical origin.

Products	Scope of 2014/34/EU (El. = Electrical)	Examples of products	Comments
Refrigerators and storage cabinets for volatile substances	No (but see Note 1) (El.)		See section § 256 in the ATEX Guidelines.
Plugs and socket outlets	Yes (El.)		Electrical equipment with potential ignition sources like sparks of electrical origin (e.g. when connected or disconnected). Note that all countries have special requirements on plugs and socket outlets for domestic use.
Rotary valve	Yes (Non-el.)		Only intended to be used as dosing equipment and not to stop the propagation of an explosion as explosion isolation system. Has to be explosion protected with respects to its ignition sources.
Switches for fixed electrical installations	Yes (El.)		Electrical equipment with potential ignition sources like sparks of electrical origin (e.g. when switched on or off).
Torch	Yes (El.)		Electrical equipment with potential ignition sources like heat and sparks of electrical origin (e.g. sparks from a switch or heat in a bulb or battery).
Extension cord with plug	Yes (El.)		Electrical equipment with potential ignition sources like heat and sparks of electrical origin. Only for temporary use.
Cable reel	Yes (El.)		Electrical equipment with potential ignition sources like heat and sparks of electrical origin; Only for temporary use.
PT 100 sensor	No / Yes		No, when used in an intrinsic safe system together with e.g. a barrier. In all other situations is it to be decided on a case by case assessment.
Protective Systems			
Fire extinguisher	No		Intended to be used after an explosion to extinguish fire.
Flame arresters	Yes		Intended to be used to stop the propagation of an explosion. Flame arresters are used for example on vapour recovery lines on petrol stations to prevent the propagation of an explosion to the underground storage tank or the vehicle.

Products	Scope of 2014/34/EU (El. = Electrical)	Examples of products	Comments
Rotary valve	Yes		Intended to be used not only as dosing equipment but also as explosion isolation system to stop the propagation of an explosion. Has to be explosion protected with respects to its ignition sources and shall fulfil the requirements for protective systems with respect to propagation of an explosion.
Vent panels (for explosion pressure relief)	Yes		Intended to be used to limit the effects of an explosion.
Explosion suppression systems including initiators devices i.e. suppression systems (triggering)	Yes (El.)		Within 2014/34/EU, Article 1.1., with respect to functional and reliability requirements according to the ESHRs 1.5. and 1.6. Initiators can be certified separately as electrical equipment.
Ex Components			
Empty enclosures	Yes (El.)		Intended to be used for electrical equipment with potential ignition sources.
Sight glasses	No		No own source of ignition. However, sight glasses may form part of the enclosure of Ex equipment and be required to fulfil relevant requirements such as for a window in Ex 'd' equipment or impact resistance in Ex 'o' and Ex 'k' equipment.
Spark arrester	Yes		Intended to prevent an explosion, not to limit it. It is an ATEX component if intended to be built into ATEX equipment or protective systems.
Magnetic catches for doors etc.	No		No autonomous function; not essential to safe functioning of ATEX equipment or protective system.
Safety, Controlling or Regulating devices			
Devices controlling the regular safety limits of an industrial process handling flammables, like pressure, level and temperature transmitters	No		Shall be protected as potential ignition sources themselves if placed inside hazards areas, but safety devices with respect to risks other than ignition hazards + monitoring devices providing only an alarm signal, but without direct control function, are outside scope of the directive (with respect to reliability and functional requirements according to the ESHR, clauses 1.5. and 1.6.).
Overload or temperature protective devices, inhibiting ignition sources from becoming active (e.g. current-dependent device for Exe motor)	Yes (El.)		Within Directive 2014/34/EU, Article 1.1., with respect to functional and reliability requirements according to the ESHR, clauses 1.5. and 1.6.
Other products			
Cables	No		No autonomous function; not essential to safe functioning of ATEX equipment or protective system.
Cable ladder and chain/handler systems	No		No autonomous function; not essential to safe functioning of ATEX equipment or protective system; no own source of ignition. For additional considerations, see Note 2.
Power transmission belt or belt drivers or belt in belt drives	No		No autonomous function; not essential to safe functioning of ATEX equipment or protective system. No own source of ignition, and for additional consideration; see Note 2. Hazards during operation, e.g. potential electrostatic risks overheating and operating temperature limits, flame retardant properties, are to be considered by the manufacturer of the equipment, where the belts are incorporated.

Products	Scope of 2014/34/EU (El. = Electrical)	Examples of products	Comments
Conduits/pipes: e.g. Fume extraction arms and conduits for electrical installations (except for conduits intended to be used between the flameproof enclosures and the conduit sealing devices)	No		No autonomous function; not essential to safe functioning of ATEX equipment or protective system.
Cable lugs/shoes with and without cord	No		No autonomous function; not essential to safe functioning of ATEX equipment or protective system.
Electro Static Discharge (ESD) - protections: e.g. wristties, shoes, standing mats, antistatic bags	No		No autonomous function; not essential to safe functioning of ATEX equipment or protective system.
Doors	No		No: none automatic doors are considered as a part of the fixed walls and are not operated in the presence of explosive atmospheres. For additional considerations, see Note 2.
Ladders, irrespective of the material	No		No own source of ignition.
Paint	No		No own source of ignition.
Tank	No		No own source of ignition.
Tools: e.g. hammers, tongs	No		No own source of ignition.

Referenties

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Intern (ATEX Website, Dow Keyword = ATEX):

- Terneuzen Procedure L3G 06.03.B (ex 49.09).
- Maintenance Procedure L3G 06.03.B ATEX richtlijn Bijlage 2 Inspectie strategie
- Inspectieformulieren (Visueel, Nauwkeurig, Gedetailleerd)

Extern:

- NEN-EN-IEC 60079-serie
- ATEX 114 richtlijn (2014/34/EU)

Toetsing

Dit document is getoetst als de beste werkwijze voor de betreffende taak door:

Herman Koelewijn / ATEX Team
(Naam/Functie)

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Document historie

Hieronder staan tenminste de laatste drie wijzigingen van dit document, inclusief alle wijzigingen gedurende de laatste drie maanden.

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