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Customer information on Pressure Equipment Directive 2014/68/EU (PED)

End of transition period

On July 19, 2016 the new Pressure Equipment Directive 2014/68/EU replaces the previous directive 97/23/EC without a transition period. All pressure equipment that is placed on the market in Europe must comply with this directive. EU directives are binding for all EU Member States.

What is covered by the PED?

Vessels, piping, safety accessories, pressure accessories, and assemblies with a maximum allowable pressure (PS) greater than 0.5 bar (Article 1 [1]).

Definitions (Article 2) (Table 1)

Vessel	A housing designed and built to contain fluids under pressure
Piping	Piping components intended for the transport of fluids
Assembly	Several pieces of pressure equipment assembled by a manufacturer to constitute an integrated and functional whole
Pressure accessories	Devices with an operational function and which have pressure-bearing housings
Safety accessories	Devices designed to protect pressure equipment against the allowable limits being exceeded

What does this mean for JUMO products?

Pressure accessories

These devices are not subject to the PED:

Temperature probes, protective sleeves, and transmitters with flange, **since** a device that does not have its own pressure-bearing housing – such a device does not have its own pressure-containing enclosure (internal pressure) – is not a pressure accessory as defined by the Pressure Equipment Directive.

These devices are subject to the PED:

Pressure-bearing housings can, for example, have pressure gauges, pressure sensors, thermostats (capillary line), and dial thermometers (capillary line).

These devices are to be considered as pressure accessories. They are subject to the PED and must be classified according to their risk potential in categories I to IV (PED Annex II).

When the volume of the pressurized housing is very low (which is often the case at JUMO), a special consideration will be made.

The following is decisive for classification (Article 4):

- the maximum pressure
- the definitive volume or the nominal size (DN)
- the fluids group

Fluids are divided into two groups:

(Article 13) (Table 2)

Group 1	Hazardous	for ex-ample	<ul style="list-style-type: none"> • potentially explosive • highly flammable • toxic • oxidizing
Group 2	Non-hazardous	All substances not referred to in group 1	

Classification (Table 3)

JUMO devices	Conditions	PED	CE label	Measures
RTD temperature probes Thermocouples Electrodes for analytical technology Fittings: flow, retractable, and process	No pressure-bearing housing No own pressure volume	No	No	None

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JUMO devices	Conditions	PED	CE label	Measures
Pressure gauges Pressure sensors	Volume ≤ 0.1 liters Pressure > 200 bar Fluid group 1	Yes	Yes	Essential safety requirements (Annex I) No EC type-examination Free module selection Internal production control (module A)
Pressure gauges Pressure sensors Flowmeters Dial thermometers Thermostats Fittings: flow, retractable, and process	Volume ≤ 0.1 liters PS * V ≤ 25 bar * L DN ≤ 25 Pressure ≤ 200 bar Fluid group 1	Yes	No	Article 4 § 3 Sound engineering practice
	Volume ≤ 0.1 liters PS * V ≤ 50 bar * L DN ≤ 32 Pressure ≤ 1000 bar Fluid group 2	Yes	No	Article 4 § 3 Sound engineering practice

Note:

The devices named in Table 3 are not considered to be safety accessories. Sensors which are part of a safety device for protecting piping or a vessel against the allowable limits being exceeded (safety accessory) require separate consideration.

EU type-examinations are in place for flowmeters with larger volumes and DN's. These are described in Table 4 below:

JUMO devices	Conditions	PED	CE label	Measures
JUMO flowTRANS MAG	Pressure accessories, classification according to PED Article 4, technical requirements, which are above the limiting conditions from Table 3	Yes	Yes	EC type-examination (module B) Certification of production according to PED (module D) Classification category III

Devices which would be classified no higher than category I according to Article 9 of the PED are not included in the application area of the PED if they are covered by the following directives (among others):

- 2006/42/EC Machinery Directive
- 2014/35/EU Low Voltage Directive
- 2014/34/EU ATEX Directive (explosion protection)

Safety accessories

All electrical and electronic temperature monitors/limiters as well as safety temperature monitors and limiters from JUMO can be used as safety accessories (e.g. on steam boilers, heat transfer oil assemblies, etc.). These are subject to the PED, must be classified as category IV, and require a CE label.

Table 5:

JUMO devices	Conditions	PED	CE label	Measures
Electrical and electronic temperature monitors TW Temperature limiters TB Safety temperature monitors STW Safety temperature limiters STB	Safety accessory	Yes	Yes	EC type-examination (module B) Certification of production according to PED (module D) Classification category IV

Note:

The devices listed in Table 5 have also been tested according to DIN EN 14597.

This information is accurate as of September 2019.