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Leader in Fluid Management Control

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**INFORMATION ON APPROPRIATE BACK FLOW PREVENTERS SYSTEMS
AND PROTECTION FITTINGS**

EN 1717

**Protection against pollution of potable water in water installations and
general requirements of devices to prevent pollution by backflow.**

CEI EN 61770

**Electric appliances connected to the water mains.
Avoidance of back-siphonage and failure of hose-sets.**

DEFRA WRAS DWI70-2-168

**Clarification of regulatory requirements for POINT-OF-USE
PROTECTION against CONTAMINATION BY BACKFLOW**

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The EN 1717 standard in a glance

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According to their potential danger by human consumption, The EN 1717 divides running fluids into five categories. The higher the danger, the higher the category number.

Fluid Categories	Examples for applications	What the standard calls for
1 Water to be used for human consumption, coming directly from a potable water distribution system.		In this category the standard requires no protections
2 Fluid presenting no human health hazard. Fluid recognized as being fit for human consumption, including water taken from a potable water distribution system, which can have undergone a change in taste, odour, colour or temperature(heating or cooling).		Category 2 fluids requires, the installation of type of EA or EC devices: verifiable single or double non-return check valve.
3 Fluid representing some human health hazard due to the presence of one or more harmful substances.		A direct controlled mechanical disconnecter (Type GA), or a backflow preventer (Type CA), must be installed
4 Fluid presenting a human health hazard due to the presence of one or more toxic or very toxic substances, or one or more radioactive, mutagenic or carcinogenic substances.		A through-flow controlled, mechanical disconnecter (Type GP) or a backflow preventer (Type BA) shall be used.
5 Fluid presenting a human health hazard due to the presence of microbiological or viral elements.		The category requires an unrestricted air gap exhaust (Type AA or Type AB).



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From a practical point of view a clearer link between examples of installation, the fluid risk category and the type of backflow protection required, or deemed appropriate would be helpful.

General USA / Australian / New Zealand / Canadian etc backflow installation risk level	BS / CEN EN 1717 corresponding Fluid Category	Risk to health under Water Supply (Water Fittings) Regulations	Appropriate backflow prevention devices	
			Name	i.e. Type
Medium	3	Slight health hazard	Double check valve, etc	CA DA DUK1 EC ED HA HC HUK1 LB
Low	2	None - Wholesome, but aesthetically impaired.	Verifiable single check valve, etc	EA EB LA

The objective is to develop guidance that clearly links type of installation and risk classification with the type of protection required.





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Appendix A - Table 1 installations and risks UK, Australia, America and Europe

Installations compiled from DEFRA guidance and examples of installations given in AS/NZ 3500.1.2 and AWWA M14 document.	Aus Category	AS/NZ 3500 1.2	AWWA M14	BS EN 1717	WRc - NSF recommend	Appropriate backflow prevention device	Type
Ice making machine					Fluid 2	Verifiable Single check valve	EA
Carbonated drink dispensing machine	Low	S/S Fluid 3			Fluid 3	Verifiable Double check valve	EC
Hot and cold water mixing				Fluid 2	Fluid 3	Verifiable Double check valve	EC
Drink dispensing equipment, vending machines, coffee machines	low	Fluid 3		Fluid 2	Fluid 3	Verifiable Double check valve	EC
Steam ovens un-pressurised			Fluid 4/5	Fluid 2	Fluid 3	Verifiable Double check valve	EC

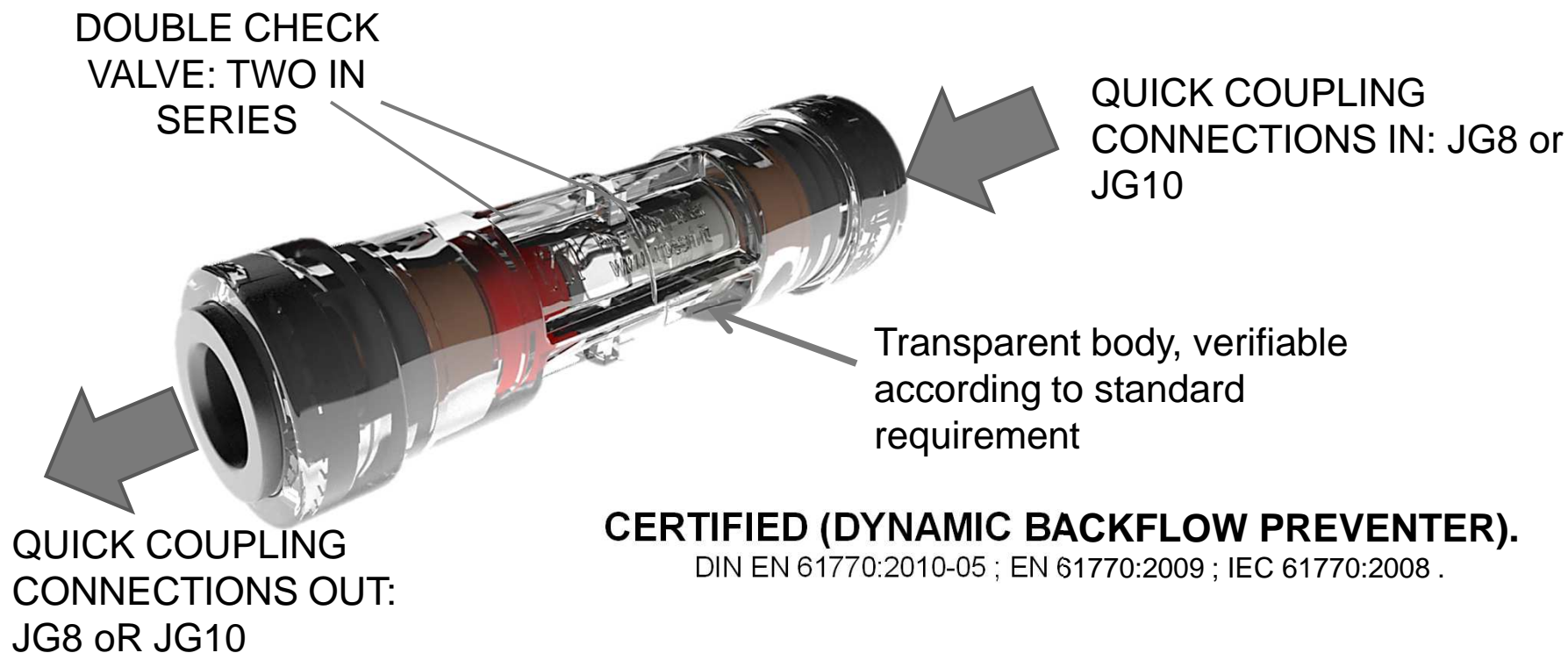


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RPE offers a practical approach, simple and integrated, driven to the immediate solutions of Standards requirements: fluid applications, categories 2 and 3

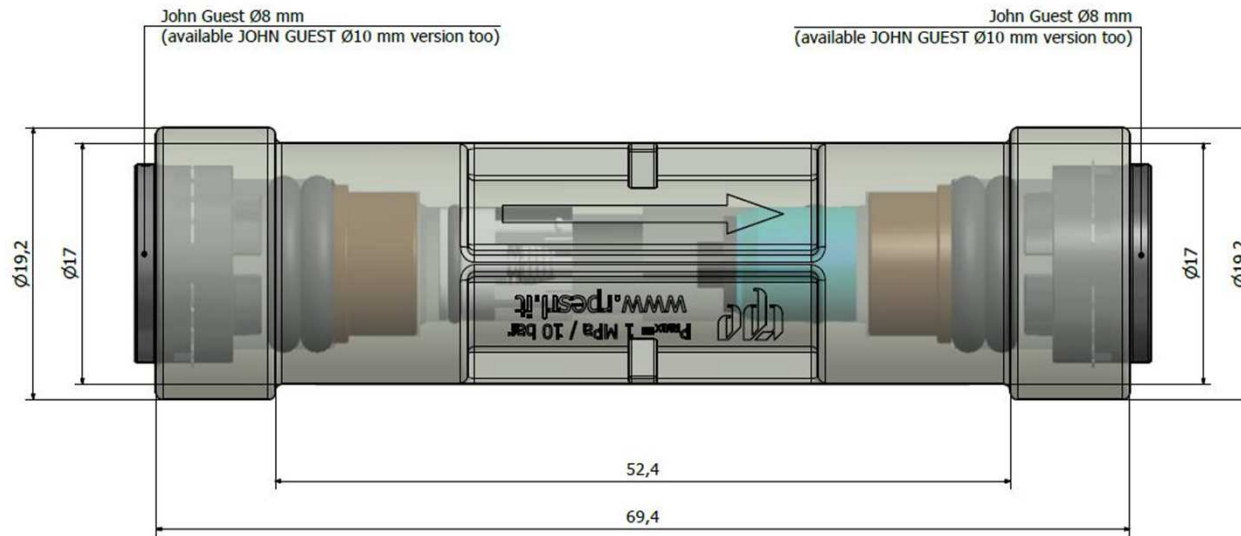
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Adjustable Cartridge Fitting Product features

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Working Conditions:

- Working pressure: 0 ÷ 10 bar
- Ambient temperature: 0 ÷ 60° C
- Medium temperature: 0 ÷ 25° C
- Fluid direction: Unidirectional

Hidraulic Connections:

- Inlet: JG8 or JG10
- Outlet: JG8 o JG10
- Mix of the two available





NOTHING GREAT HAS EVER BEEN DONE
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