

EcoReg[®]

Fluid regulator for drinking water, other fluids, oxygen, nitrogen, N2O etc.



Made of the lead-free brass material Ecobrass/Cuphin[®] ideal for critical application areas such as drinking water, food industry, medical industry, etc. Conforms to the DIN 50930-6/FDA/EU drinking water directives and other regulations.

The use of lead-free materials is growing in importance in particular as an alternative material for drinking water applications, where health standards are high. As an alternative material to conventional brass, Protect-Air offers a fluid regulator made of a lead-free brass material Ecobrass[®] (trade name CUPHIN).*

Drinking water is considered the most vital element for life next to air/oxygen. Since there is no alternative to this finite resource, protecting and securing the standard and quality of drinking water is a top priority for engineers, planners and Technicians as well as system operators.

The use of lead-free materials is an increasing priority in particular as an alternative material in the

sanitation, food and medical sectors. With their rigorous health standards. The EU drinking water directive plays an important role here. Its 2013 amendment will lower the lead Concentration limit from the current level of 25 microgram per litre of drinking water to 10 microgram.

Free of toxic additives, the Ecobrass/Cuphin[®] materials (*see page 31 below) conform to the requirements specified in DIN 50930-6. This makes them particularly suitable for critical applications.

The fluid regulators made of Ecobrass[®] are minimally susceptible to tension-crack corrosion and are dezincification-resistant, which makes an additional surface treatment unnecessary. This is environmentally friendly, saves cycle times, additional procedures and there by costs.

These are all good reasons to choose Protect-Air Ecobrass[®] fluid regulators that meet health and safety requirements and in areas that are constantly subject to corrosion risk.

EcoReg®

**In-line pre-set regulator for water and other fluids
also available on request for oxygen, nitrogen, N20 etc.**



Product Benefits:

- Reduces consumption
- Reliability
- Service free: no adjustment needed
- Competitively priced
- Tamper proof
- Lightweight – compact construction
- Easy to mount in any water supply system
- Extension by sprinkler equipment
- In compliance with prevailing Food and Feed Code of Law (TÜV)
- Increases tool service life
- Medical Industry



The EcoReg® fluid regulator is an independent diaphragm pressure regulator that can be installed in all fluid systems. The pressure regulator ensures a constant and precise output pressure independent from the input pressure. The pressure value has been factory preset and cannot be changed. This ensures that no one can manipulate the specified pressure value.

It is generally known that the pressure of fluid lines is usually too high, fluctuates or varies according to building height. In such cases, the Inline-EcoReg® fluid regulator protects all downstream installations, devices and components, because only the proper pressure is admitted. This is particularly important for all machines and plants dosing fluids because costly stops in production can be avoided.

If the EcoReg® fluid regulator is also combined with a sprinkler nozzle, optimal conditions are created for cooling/cleaning applications with sprayed water or sprayed mists.

***) Eco brass / Cuphin:**

Materials for drinking water, etc., must meet increasingly rigorous mechanical and chemical corrosion requirements, in particular regarding hygiene safety. Free of toxic additives, the material Eco brass/Cuphin® complies with the conditions specified in DIN 50930-6. Thanks to the selected combination of the alloying elements copper, zinc and silicon, Eco brass/Cuphin® does not require the addition of lead. The material also promises high stability, even when expanded, permitting cold and hot forming; for instance, for processing with hot forging. As a result, Eco brass/Cuphin® should be better to process than conventional brass materials that contain lead. The high stability and the very good resistance to corrosion of the material additionally offer ideal conditions for tight, wear-resistant connections in sanitation installations that are also subject to strong mechanical forces. The components made of Eco brass/Cuphin® are minimally susceptible to tension-crack corrosion and are dezincification-resistant, which makes an additional surface treatment unnecessary.

Technical Data and Ordering Information



EcoReg®

Installation: Fluid regulator made of lead-free brass material Ecobrass / Cuphin® Ideal for critical application areas such as drinking water, food industry, medical industry, etc. Conforms to the DIN 50930-6 / FDA / EU drinking water directives and other regulations. The regulator ensures that a constant pressure is always maintained, despite the normal pressure fluctuations in a system. To avoid unnecessary loss of pressure in long pipes or hoses, the regulator has to be mounted as close as possible to the point of consumption.

Medium: Water, oxygen, nitrogen, N20, compressed air, etc.

Thread Connection	Outlet Pressure	Tolerances* (at 10 ltrs. Min)	Flow water	Flow gases	Dimensions (mm)		Weight Gram	Maximum Inlet Pressure	Temperature Range	Material	Order Code						
			milli litres/Min At 10 bar/145 psig milli litres/Min. Δp:0,8 bar / 11,5	Ltrs./min - scfm At 12 bar/174 psig Ltrs./Min. Δp:0,5 bar / 7 psig	A	Across Flat											
BSP																	
1/4" BSP FluidReg female-female																	
1/4"	1 bar	+/- 0,3 bar / 4,35 psig	3000	400 / 14,2	52	17	125	Water: 10 bar / 145 psig Other Gases 18bar / 260psig	Water: 4 °C to 60°C (39°F to 140°F) Other Gases: 0 °C to 60°C (32°F to 140°F)	Housing: Ecobrass/Cuphin Spindle: Ecobrass/Cuphin Diaphragm: Nitril / FPM Spring: Stainless Steel Valve Seat: PPH	239C0210						
1/4"	1,5 bar	+/- 0,3 bar / 4,35 psig	3500	400 / 14,2							239C0215						
1/4"	2 bar	+/- 0,3 bar / 4,35 psig	4000	600 / 21,3							239C0220						
1/4"	2,5 bar	+/- 0,3 bar / 4,35 psig	4000	600 / 21,3							239C0225						
1/4"	3 bar	+/- 0,3 bar / 4,35 psig	4000	700 / 24,7							239C0230						
1/4"	3,5 bar	+/- 10%	4000	700 / 24,7							239C0235						
1/4"	4 bar	+/- 10%	4000	700 / 24,7							239C0240						
1/4"	4,5 bar	+/- 10%	4000	700 / 24,7							239C0245						
1/4"	5 bar	+/- 10%	4000	700 / 24,7							239C0250						
1/4"	5,5 bar	+/- 10%	4000	700 / 24,7							239C0255						
1/4"	6 bar	+/- 10%	4000	800 / 28,3							239C0260						
1/4"	6,5 bar	+/- 10%	4000	800 / 28,3							239C0265						
1/4"	7 bar	+/- 10%	4000	800 / 28,3							239C0270						
1/4"	8 bar	+/- 10%	4000	800 / 28,3							239C0280						
NPT																	
1/4" NPT FluidReg female-female																	
1/4"	15 psig	+/- 0,3 bar / 4,35 psig	3000	400 / 14,2	52	17	125	Water: 10 bar / 145 psig Other Gases 18bar / 260psig	Water: 4 °C to 60°C (39°F to 140°F) Other Gases: 0 °C to 60°C (32°F to 140°F)	Housing: Ecobrass/Cuphin Spindle: Ecobrass/Cuphin Diaphragm: Nitril / FPM Spring: Stainless Steel Valve Seat: PPH	239CS1215						
1/4"	23 psig	+/- 0,3 bar / 4,35 psig	3500	400 / 14,2							239CS1223						
1/4"	30 psig	+/- 0,3 bar / 4,35 psig	4000	600 / 21,3							239CS1230						
1/4"	36 psig	+/- 0,3 bar / 4,35 psig	4000	600 / 21,3							239CS1236						
1/4"	45 psig	+/- 0,3 bar / 4,35 psig	4000	700 / 24,7							239CS1245						
1/4"	50 psig	+/- 10%	4000	700 / 24,7							239CS1250						
1/4"	60 psig	+/- 10%	4000	700 / 24,7							239CS1260						
1/4"	65 psig	+/- 10%	4000	700 / 24,7							239CS1265						
1/4"	75 psig	+/- 10%	4000	700 / 24,7							239CS1275						
1/4"	80 psig	+/- 10%	4000	700 / 24,7							239CS1280						
1/4"	90 psig	+/- 10%	4000	800 / 28,3							239CS1290						
1/4"	95 psig	+/- 10%	4000	800 / 28,3							239CS1295						
1/4"	100 psig	+/- 10%	4000	800 / 28,3							239CS12100						
1/4"	120 psig	+/- 10%	4000	800 / 28,3							239CS12120						
On request: Other pre-set pressures																	

*Tolerances Test medium: Air, Pe = 6 bar/90 psig (at Pa <= 4 bar/60 psig), 10 NI/Min / 0,35 scfm
Test medium: Air, Pe = 10 bar/150 psig (at Pa >= 4 bar/60 psig), 10 NI/Min / 0,35 scfm

