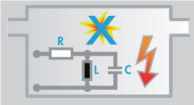





Protection Concepts

Electrical

Intrinsic safety	Ex-ia	IEC 60079-11/EN 60079-11	Zone 0, 1, 2	Limit the energy	
Intrinsic safety	Ex-ib	IEC 60079-11/EN 60079-11	Zone 1, 2		
Intrinsic safety	Ex-ic	IEC 60079-11/EN 60079-11	Zone 2		
Increased safety	Ex-e	IEC 60079-7/EN 60079-7	Zone 1, 2	Non arcs, sparks or hot surfaces, IP54 or better	
Flameproof enclosure	Ex-d	IEC 60079-1/EN 60079-1	Zone 1, 2	Contain the explosion Use a flamepath	

Dust Protection

Enclosure	Ex-t	IEC 60079-31/EN 60079-31	Zone 20,21,22	Dust tight enclosure IP6X	
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Additional International Ex-Certifications, Installation Instructions, Approvals & Licence Numbers for Cable Glands, Cable Glands can be found online at <http://sealconex.com/certificates.htm>

International Protection, EN 60529

1. Code		2. Code	Penetration of water									
			Non-protected	Protection against drip water (or dripping water)	Protected against vertically falling water drops when device is tilted up to 15°	Water sprayed at an angle up to 60° on either side of the vertical shall have no harmful effects	Water splashed from any direction shall have no harmful effects	Water projected in jets from any direction shall have no harmful effects	Water projected in powerful jets from any direction shall have no harmful effects	Protection against temporary submersion	Protection against permanent submersion	
Protection against human access to hazardous parts	Protection of equipment against penetration of solid foreign objects		IP x0	IP x1	IP x2	IP x3	IP x4	IP x5	IP x6	IP x7	IP x8	
Non-protected	Non-protected	IP 0x	IP 00									
Protected against access to hazardous parts with the back of the hand	Protected against solid foreign objects larger in diameter than 50 mm	IP 1x	IP 10	IP 11	IP 12							
Protected against access to hazardous parts with a finger	Protected against solid foreign objects larger in diameter than 12,5 mm	IP 2x	IP 20	IP 21	IP 22	IP 23						
Protected against access to hazardous parts with a tool larger in diameter than 25 mm	Protected against solid foreign object larger in diameter than 2,5 mm	IP 3x	IP 30	IP 31	IP 32	IP 33	IP 34					
Protected against access to hazardous parts with a wire larger in diameter than 1,0 mm	Protected against solid foreign objects larger in diameter than 1,0 mm	IP 4x	IP 40	IP 41	IP 42	IP 43	IP 44					
Protected against access to hazardous parts with a wire larger in diameter than 1,0 mm	Prevent penetration of dust sufficient to cause damage inside the equipment.	IP 5x	IP 50				IP 54	IP 55				
Protected against access to hazardous parts with a wire larger in diameter than 1,0 mm	Dust proof	IP 6x	IP 60					IP 65	IP 66	IP 67	IP 68	

Ex-d EXIOS Cable Glands
 Ex-d Nickel Plated Brass & Stainless Steel Glands
 Ex-e Nylon Glands
 Ex-e Multi-Hole & Romex Glands
 Ex-e Nickel Plated Brass & Stainless Steel Glands
 Ex-e EMI / RFI Nickel Plated Brass Glands
 Ex-e Conduit & Fitting Systems
 Ex-e / Ex-d Accessories
 Technical Information