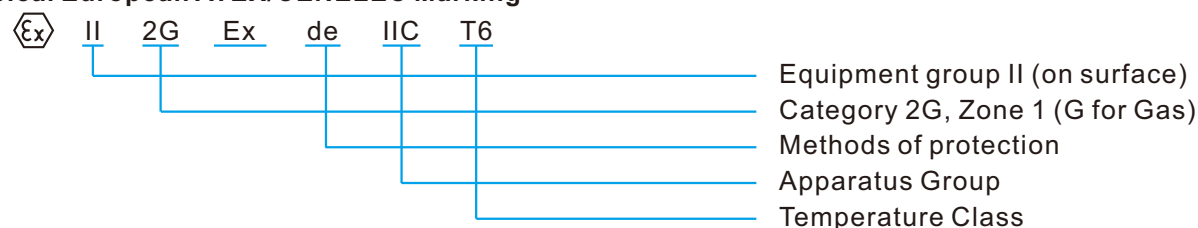


Installation

- After removing the packing, make sure that dirt cannot penetrate into the system.
- Before mounting the system, check that there is no dirt in the piping or the valve housing.
- When inserting the system, make sure that the flange o-ring will not be damaged.
- Mounting is admissible in any position. Preferably the solenoid system has to point upwards.
- The solenoid coil can be locked in 90° steps.
- Tightening torque for fastening 5/2 way solenoid coil nut: 0.5Nm; Tightening torque for fastening 2/2way solenoid coil nut :1.2Nm.
- Electrical connection: cable designed for screw/clamping connection.
If connecting the lead wires, make ensure the wire ends of the leads are properly inserted to the electrical terminal.
- Connecting cable and wires should be free of sharp bends in order to avoid short circuits and interruptions.
- Before initial operation of the device, make sure that the overall equipment or unit respectively meets the requirements of the EMC directive.
- The installation has to done by technical personnel under consideration of relevant regulations.
Valve-housing material:
Casting alloy :Mg contents < 6%
Plastics :Surface resistance < 1GΩ according to EN 50014 7.3.2
- Each solenoid operator has to be protected by a fuse according to the rated current(max.3x rated current accord. DIN4157or IEC 60127-2-1)resp. Motor protection switch with short-circuit and fast thermal tripping protection. The fuse can be accommodated in the associated device or must be added separately.
- The fuse voltage has to be equal or higher than the rated solenoid voltage.
- The shutdown capability has to be equal or higher than the max. assumed short-circuit current at the installation point (usually 1500A)
- The maxium permissible ripple for all magnets of DC-design is 20%.

According to IEC standard, the inflammable gas can be classified to group T1-T6 by ignition temperature.
North America standard is also identical to IEC standard to the classification of temperature group.
They even divide it into more specific groups. In the new directive, the explosion-proof symbol is:

Typical European ATEX/CENELEC Marking

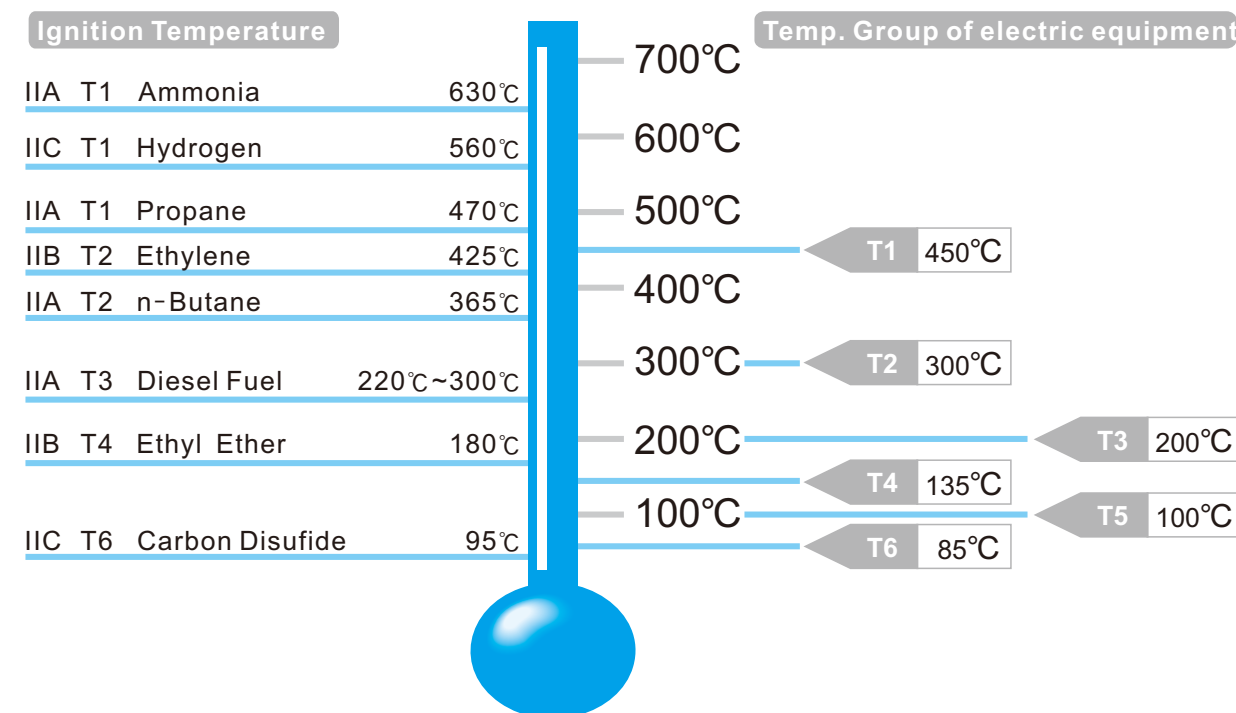


Temperature classification table

Class	Max.Temp	Japan	European	North America			
1	450°C	G1	T1	T1 450°C			
2	300°C	G2	T2	T2	300°C	T2C	230°C
				T2A	280°C	T2D	215°C
				T2B	260°C		
3	200°C	G3	T3	T3	200°C	T3B	165°C
				T3A	180°C	T3C	160°C
4	135°C	G4	T4	T4	135°C	T4A	120°C
5	100°C	G5	T5	T5 100°C			
6	85°C	G6	T6	T6 85°C			

Temperature group table

In accordance with the major media of enviromment, to decide suitable electric equipment



System 8-22 Ex m II T4

System 13-36 Ex m II T4

Type	051300...051349			121300...12349			0518 00... 0518 29			1218 00...1218 29		
Current	AC Operation -50..60Hz			DC Operation Max. 20%ripple			AC Operation -50..60Hz			DC Operation Max. 20%ripple		
Temperature	Temperature classT4 135℃ Max.temp. of coil surface											
Rated voltage	Rated current	Rated power	Fuse mA	Rated current	Rated power	Fuse mA	Rated current	Rated power	Fuse mA	Rated current	Rated power	Fuse mA
12	392	4.1	800	375	4.5	630	623	7.5	1600	822	9.9	1600
24	192	4.6	400	207	4.97	315	315	7.2	800	421	10.1	800
110	41	4.5	80				83	9.1	200			
220	22	4.8	50				35	7.7	100			
240	22	5.5	50				39	9.2	100			

System 8-36CSA NPTF1/2" T4

System 8-22 Ex m II T5

Rated voltage (V)	AC Operation		DC Operation		Type	051350...051399			121350...121399		
	Temperature class T4,135℃		Max.temp. of coil surface		Current	AC Operation -50..60Hz			DC Operation Max.20%		
	Rated current (A)	Rated power (VA)	Rated current (A)	Rated power (W)	Temperature	Temperature classT5 100℃ Max.temp. of coil surface					
					Rated voltage	Rated current	Rated power	Fuse mA	Rated current	Rated power	Fuse mA
12	-	-	0.038	4.5							
24	-	-	0.191	4.6	12	192	2.3	400	231	2.77	400
110	0.068	7.5	-	-	24	121	2.9	250	115	2.76	200
220	0.035	7.7	0.026	6	110	21	2.3	40			
230	0.033	7.7	-	-	230	9	2.1	32			
240	0.028	6.8	-	-	240	10	2.3	32			