

The explosion-proof valves by ARGO-HYTOS help to create a safe environment in potentially explosive atmospheres

## **Zone / Division clasification**



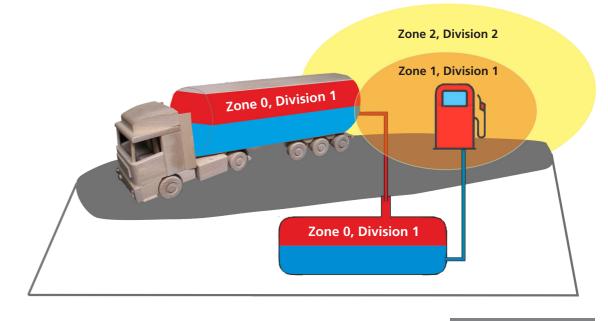
### Simplified:

NEC 505 = IEC



There are both possibilities in US either NEC 500 or NEC 505

		Flammable Material		
		Present Continuously	Present Intermittently	Present Abnormally
IEC/EU		Zone 0	Zone 1	Zone 2
US	NEC <sup>®</sup> 505	Zone 0	Zone 1	Zone 2
	NEC <sup>®</sup> 500	Division 1		Division 2
CA	CEC	70	Zone 1	Zone 2
	Section 18	Zone 0		
	CEC Annex J	Division 1		Division 2



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- Zone EU ATEX & IECEx directives
  - US --- NEC 500 & NEC 505 directives

## **NEC 500 ≠ IEC**



Symbol	Type Code	Size	Flow/Pressure			
	Data Sheet		lpm (GPM) / bar (PSI)			
	Explosion Proof, 4/2 and 4/3, I	Directional Control Valve,	Solenoid Operated			
	RPEX3-06 HA 4054	Size 06 (D03)	60 (16) / 350 (5100)			
A B	Explosion Proof, 4/2 and 4/3, Directional Control Valve - Spool Position Monitoring					
	RPEX3-06*S6 HA 4094	Size 06 (D03)	60 (16) / 350 (5100) *	P 68 only		
	Explosion Proof, Auxiliary Lever Override for Solenoid Operated Valves					
	RPERX3-06 HA 4095	Size 06 (D03)	60 (16) / 350 (5100)			
	Explosion-proof, 4/2 and 4/3	Directional Control Valve,	Pilot Operated			
	RNEXH1-10 HA 4077	Size 10 (D05)	150 (40) / up to 420 (6100)			
	Explosion-proof, 4/2 and 4/3 Directional Control Valve, Pilot Operated					
	RNEXH5-16 HA 4058	Size 16 (D07)	300 (80) / up to 420 (6100)			
	Explosion-proof, 4/2 and 4/3 Directional Control Valve, Pilot Operated					
	RNEXH4-25 HA 4059	Size 25 (D08)	600 (160) / up to 420 (6100)			
	Explosion Proof 2/2 Directiona	l Valve, Solenoid Operate	d, Spool Type, Direct Acting			
M T T	SD2EX-B2 HA 4064	7/8-14 UNF	45 (12) / 350 (5100)			
0	Explosion Proof 3/2 Directional Valve, Solenoid Operated, Spool Type, Direct Acting					
	SD2EX-B3 HA 4065	7/8-14 UNF	60 (16) / 350 (5100)			
0.4	Explosion Proof 4/2 Directional Valve, Solenoid Operated, Spool Type, Direct Acting					
	SD2EX-B4 HA 4066	7/8-14 UNF	4 UNF 50 (13) / 350 (5100)			
	Explosion Proof 2/2 Directiona	l Valve, Solenoid Operate	d, Poppet Type, Piloted			
2	SD3EX-B2 HA 4067	7/8-14 UNF	JNF 75 (20) / 420 (6100)			
	Explosion Proof 2/2 Directional Valve, Solenoid Operated, Poppet Type, Piloted					
1	SD3EX-C2 HA 4089	1-1/16-12 UN	150 (40) / 350 (5100)			
	Explosion Proof 2/2 Directiona	Valve, Solenoid Operated	, Poppet Type, Direct Acting			
M\$11	SD1EX-A2 HA 4088	3/4-16 UNF	30 (8) / 350 (5100)			
	Explosion Proof 3/2 Directional	Valve, Solenoid Operated	, Poppet Type, Direct Acting			
Matra	SD1EX-A3 HA 4068	3/4-16 UNF	40 (11) / 350 (5100)			
	Explosion Proof 4/3 Proportion	nal Control Valve, Screw-i	n, Cartridge Design			
	SD2PX-B4 HA 5186	7/8-14 UNF	25 (7) / 250 (3630)			
Δ. R	Explosion Proof Proportional Directional Control Valve					
	PRMX2-06 HA 5183	Size 06 (D03)	28 (7.4) / 350 (5100)			
A	Explosion Proof Proportional Directional Control Valve, Pilot Operated					
	PRMX8-06 HA 5185	Size 06 (D03)	140 (37) / 350 (5100)			
	Explosion Proof Proportional P	ressure Control Valve, Red	ucing - Relieving, Direct-Acting			
	PVRMX3-103 HA 5184	M24x1.5	40 (11) / 90 (1300)			
11.11	J	1				



Key Shot

We produce fluid power **solutions** 

# Valves

The explosion-proof valves by ARGO-HYTOS help to create a safe environment in potentially explosive atmospheres.



#### **ATEX Certificates Review:**

Voltage	ATEX Certificate N.:		
	🕼 l M2 Ex mb l Mb		
AC	🕼 II 2G Ex mb IIC T4, T		
	⟨€x⟩ II 2D Ex mb IIIC T135		
	1		
	<b>⟨€x⟩</b> I M2 Ex e mb I Mb		
DC	⟨€͡ᠷ⟩ II 2G Ex e mb IIC T4,		
	€x II 2D Ex tb IIIC T135		

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#### **Explosion-Proof Solenoid:**

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- Robust valve and solenoid design (proven impact resistance (mining)) AC and DC types with low 10 W and high power 18 W versions
- Up to + 70 °C ambient temperature
- High efficiency requires low electrical power.
- Solenoid can be interchanged between Cartridge and CETOP modular valves

#### **Technical Features:**

- Wide range of manual overrides including hand lever options Exceptionally high hydraulic power
- All valves and sealings are designed for 10 m. operating cycles Ultra-tight poppet valves for pressure ratings of up to 420 bar
- Pressure ranges: 350 bar for spools and 420 bar for poppet versions,
- flow range from 25 l/min to 600 l/min
- Surface protection 520 h acc.to ISO 9224 SIC Spool valves with tumbling nose feature to compensate misalignments of the cavity; the spool never blocks
- IP 66/68

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# **EXPLOSION-PROOF**

Group IIC - covers all gas groups EPS14ATEX1744 X ATEX Certificate N.: IECEx EPS14.0064 X Ex mb I Mb T5, T6 Gb Ex mb IIC T4, T5, T6 Gb 35°C, T100°C, T85°C Db Ex mb IIIC T135°C, T100°C, T85°C Db Ex e mb I Mb Ex e mb IIC T4, T5, T6 Gb , T5, T6 Gb 5°C, T100°C, T85°C Db Ex tb IIIC T135°C, T100°C, T85°C Db

Range of application: temperature class T4, T5, T6 Wide range of applications – Gas (IIC), Dust (IIIC) and Mining (M2) Worldwide use possible thanks to IECEx and ATEX certificates ATEX, IECEx solenoid certifications for the zones and areas named

Terminal box allows for a variety of connections

#### IP 66/68 for all Ex-proof product!\*

Directional spool, poppet and proportional valves

