

ELETTROVALVOLE  
SPOOL VALVES

**EVJ53 - EVJ54**

**EVJ53**

**ELETTROVALVOLA PIEZOTRONIC CON SINGOLO SOLENOIDE ATEX**  
**SINGLE COIL PIEZOTRONIC SOLENOID VALVE ATEX**

(G551C501GD+630000xx - internal reference)

**IP 65**

**COMANDO MANUALE DI SICUREZZA**  
**MANUAL OVERRIDE OPERATION**



**ATEX**  
II 1 G Ex ia IIC T6  
II 1 D Ex ia IIIC T85°C



**EVJ54**

**ELETTROVALVOLA PIEZOTRONIC CON DOPPIO SOLENOIDE ATEX**  
**DOUBLE COIL PIEZOTRONIC SOLENOID VALVE ATEX**

(G551C502GD+630000xx - internal reference)

**DIPONIBILI CON SILENZIATORI IN OTTONE O IN PLASTICA.**  
**DISPONIBILI CON SILENZIATORI RIDUTTORE DI FLUSSO.**  
**AVAILABLE WITH BRASS OR PLASTIC SILENCERS.**  
**AVAILABLE WITH FLOW NOISES SUPPRESSOR REDUCING.**

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**ELETTROVALVOLE  
SPOOL VALVES**

# EVJ53 - EVJ54

**EVJ53 – SINGLE COIL SOLENOID VALVE** (G551C501GD+630000xx - internal reference)

**EVJ54 – TWO COILS SOLENOID VALVE** (G551C502GD+630000xx - internal reference)

## CARATTERISTICHE GENERALI / GENERAL FEATURES

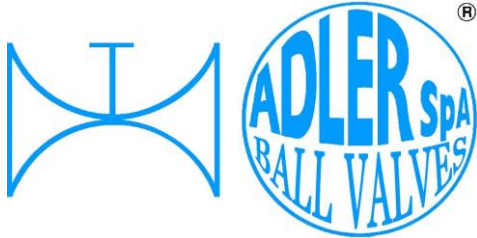
- Elettrodistributore a comando servoassistito con raccordi filettati e piano di posa secondo NAMUR:
- Singolo solenoide mod. **EVJ53 - monostabile**;
- Doppio solenoide mod. **EVJ54 - bistabile**.
- Dispositivo di azionamento manuale dell'elettrovalvola, azionabile con cacciavite.
- Elettrovalvole a basso assorbimento per l'utilizzo in atmosfere potenzialmente esplosive in accordo alla direttiva ATEX 2014/34/EU.
- Adatto alle funzioni 3/2 NC e 5/2 per il comando di attuatori a semplice e doppio effetto.
- Attacchi filettati in accordo DIN 43650, forma C, 9,4 mm.
- Montaggio mediante 2 fori in accordo allo standard NAMUR e VDI/VDE 3845.
- Temperatura di funzionamento:  
-20°C < T < +50°C
- Ritorno a molla.
- Elettrovalvole conformi alle Direttive IEC e EN: 60079-0, 60079-11 e 60079-26.
- Su richiesta, elettrovalvole conformi alla norma IEC 61508 di sicurezza funzionale, utilizzabili fino a SIL 3.
- Peso: 330 gr (EVJ53) – 400 gr (EVJ54)
- *The spool valves have threaded port connections and NAMUR style interface:*
- Single coil mod. **EVJ53 - monostabile**;
- double coil mod. **EVJ54 - bistabile**.
- *Manual override operation, it can be operated with screwdriver.*
- *Ultra-low power valves for use in potentially explosive atmospheres according to ATEX Directive 2014/34/EU.*
- *The same spool valve can be adapted for 3/2 NC or 5/2 function for controlling double-acting and single acting actuators.*
- *Connecting according to DIN 43650, form C, Ø 9,4 mm .*
- *Assembly with 2 holes according NAMUR standard and according VDI/VDE 3845.*
- *Operating temperature:*  
-20°C < T < +50°C
- *Valves with spring return.*
- *The solenoid valves satisfy IEC and EN directives: 60079-0, 60079-11 and 60079-26.*
- *On request, spool valve compliant with IEC 61508 functional safety standard, usable up to SIL3.*
- *Weight: 330 gr (EVJ53) – 400 gr (EVJ54)*

## SPECIFICHE PNEUMATICHE / PNEUMATIC SPECIFICATIONS

- **Pressione di utilizzo:**  
Pmin: 2 bar  
Pmax: 8 bar.
- **Caratteristiche di passaggio:**  
Ø passaggio: 6mm.  
Coefficiente di portata kv: 10 l/min (0.6 m<sup>3</sup>/h).
- **Fluido di funzionamento:**  
• Fluidi: aria, gas neutri, filtrati (5µm per versione 6-8-12V e 25 µm per la versione 24V), senza condensa (punto rugiada -20°C).
- **Operating pressure:**  
Pmin: 2 bar  
Pmax: 8 bar.
- **Flow diameter:**  
Orifice size: Ø 6mm.  
Flow coefficient kv: 10 l/min (0.6 m<sup>3</sup>/h).
- **Operating media:**  
Fluids: air, inert gas, filtered (5µm for 6-8-12V version and 25 µm 24V version), without condensate (dew point - 20°C).

## MATERIALE / MATERIAL

- **Corpo:**  
Alluminio anodizzato nero.
- **Testata (ritorno a molla) e piastre interfaccia:**  
PA caricata fibre di vetro.
- **Parti interne:**  
Zamak, acciaio inox, POM, alluminio.
- **Body:**  
Aluminium, black anodized.
- **End cover (spring) and interface plates:**  
Glass-filled PA.
- **Internal parts:**  
Zamak, stainless steel, POM, aluminium.

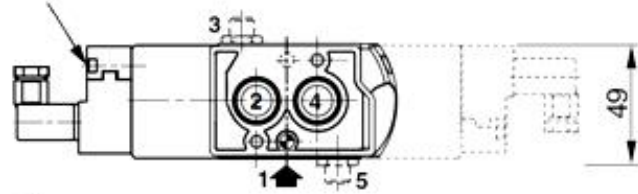


# ELETTROVALVOLE SPOOL VALVES EVJ53 - EVJ54

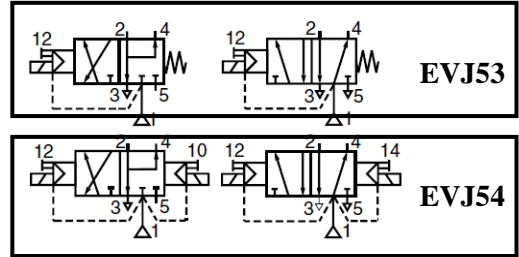
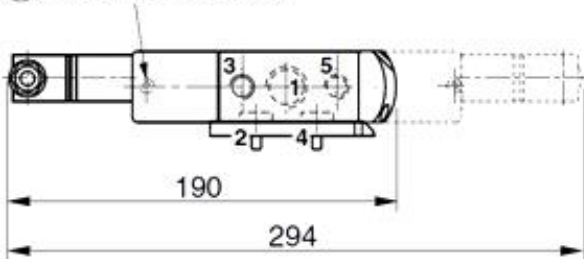
**EVJ53 – SINGLE COIL SOLENOID VALVE** (G551C50 1GD +630000xx - internal reference)  
**EVJ54 – TWO COILS SOLENOID VALVE** (G551C502GD +630000xx - internal reference)

## DIMENSIONI ELETTROVALVOLA / SPOOL VALVE DIMENSIONS

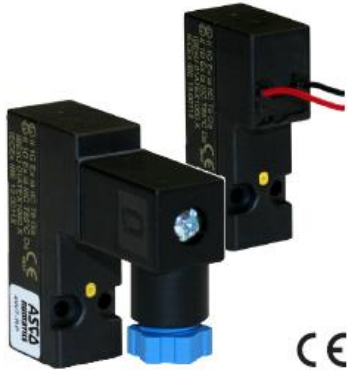
Comando manuale / Manual operator



Porta di sfiato / Pilot exhaust port

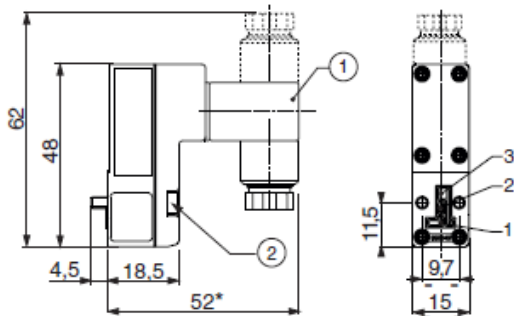


## LEGENDA / LEGEND

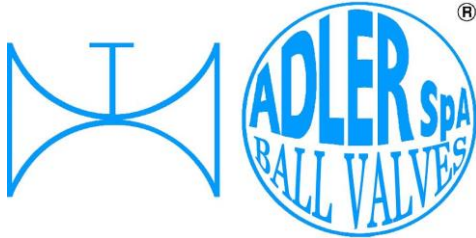


- Fori di alimentazione [1] e di scarico [3,5]: filettati G 1/8 (ISO 228/1);	- Supply [1] and exhaust [3, 5] holes: threaded G 1/8 (ISO 228/1);
- Fori di scarico [3, 5]: possibilità di montaggio silenziatore in ottone o in plastica;	- Exhaust holes [3, 5]: available for mounting brass or plastic exhaust silencers;
- Comando manuale di emergenza;	- Manual operator;
- Fori di utilizzo [2, 4] completi di O-Ring	- Operating holes [2, 4]: supplied with O-Ring
- 2 fori di fissaggio Ø 5,3 mm (B): lamatura Ø 9 mm, profondità 5 mm;	- 2 mounting holes Ø 5,3 mm (B): spotfacing Ø 9, depth 5 mm;

## SOLENOIDE 630000xx / SOLENOID 630000xx



- **Corpo solenoide / solenoid enclosure**  
PPS
- **Parti interne / internal parts**  
Ceramica piezoelettrica  
Piezo ceramics
- **Tenute / seals**  
NBR
- **Guarnizioni interfaccia pneumatica / Pneumatic interface seal**  
Brass, PA, or zinc diecast
- **Tensioni disponibili / Available voltages**  
DC: 6-8-12-24 V



# ELETTRIVALVOLE SPOOL VALVES **EVJ53 - EVJ54**

## SPECIFICHE TECNICHE / SPECIFICATIONS

Flow coefficient Kv(l/min)	Operating pressure (bar)	Voltage (V)	Power rating (W)	Manual operator	Solenoid code
0,033	2-8	6	0,003	Impulse	63000061
		8	0,022	""	63000093
		12	0,012	""	63000053
		24	0,046	""	63000045

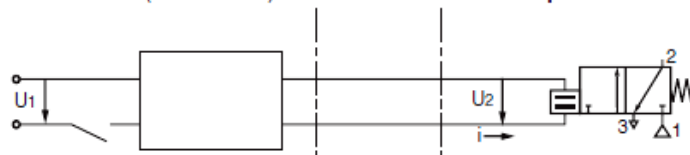
## CARATTERISTICHE ELETTRICHE / ELECTRICAL FEATURES

- Classe di protezione: IP 65
- Connessione elettrica: DIN 43650, 9,4 mm, forma C per cavo Ø 4-6mm
- Solenoide attivo 100% ED;
- Bobina con classe di isolamento F;
- Connettore approvato ATEX-IECEX.
- Class protection: IP 65
- Electrical connection: DIN 43650, 9,4 mm, form C for cable Ø4-6 mm
- Duty cycle: 100% ED, continuous operation;
- Coil isolation class F;
- IECEx-ATEX approved cable entry device.

voltage (U <sub>n</sub> ) (max. ripple 10%)	power ratings hot/cold =	holding current I <sub>N</sub>	typical functional ratings					operator ambient temperature range (TS)	type (2)
			U2 (ON) turn on	U2 (OFF) turn off	I (peak) peak	I (hold) hold	R <sub>s</sub> + R <sub>c</sub> barrier + cable		
(V)	(W)	(mA)	(V)	(V)	(mA)	(mA)	max. (Ω)	(°C) (1)	
<b>Ultra low power (UP)</b>									
6	0,003	0,5	6..9	3	6	0,5	1200	-20 to +50	01-02
8	0,022	2,9	7,2..12	3,2	10	2,8	300		
12 (12 mW version)	0,012	1	10,8..16	3,3	6,8	1	1200		
12 (32 mW version)	0,032	2,7	10,8..16	3,3	8,1	2,7	470		
24 (46 mW version)	0,046	1,9	21,6..28	5	10	1,9	1200		
24 (125 mW version)	0,125	5,2	21,6..28	5	14	5,2	470		

power level	safety parameters				
	U <sub>i</sub> = (DC)	I <sub>i</sub>	P <sub>i</sub>	L <sub>i</sub>	C <sub>i</sub>
(W)	(V)	(mA)	(W)	(H)	(μF)
<b>Ultra low power (UP)</b>					
All versions	30	200	0,9	0	0

Example of use with a Zener barrier installed in a non-hazardous zone: safe area (RS interface) cable explosive area



## TEMPERATURE CLASSIFICATION TABLES DC (=)

power level (watt)	maximum ambient °C (1)		
	surface temperature		
	T6 85°C	T5 100°C	T4 135°C
Insulation class F (155°C) 100% E.D. (2)			
All	50	-	-

(1) The minimum allowable ambient temperature is -20°C  
 (2) The piezo-valve is designed for continuous duty within the maximum ambient temperature limits. This intrinsically safe piezo-valve must be connected to a specific, approved power supply (safety barrier or interface) located in a safe area. See list of safety barriers/interfaces on page 2.  
 (3) Refer to the dimensional drawings on the following page.  
 (4) Not to be used as a safety valve.

## ELECTRICAL CONNECTION (piezo-valves have polarization)

