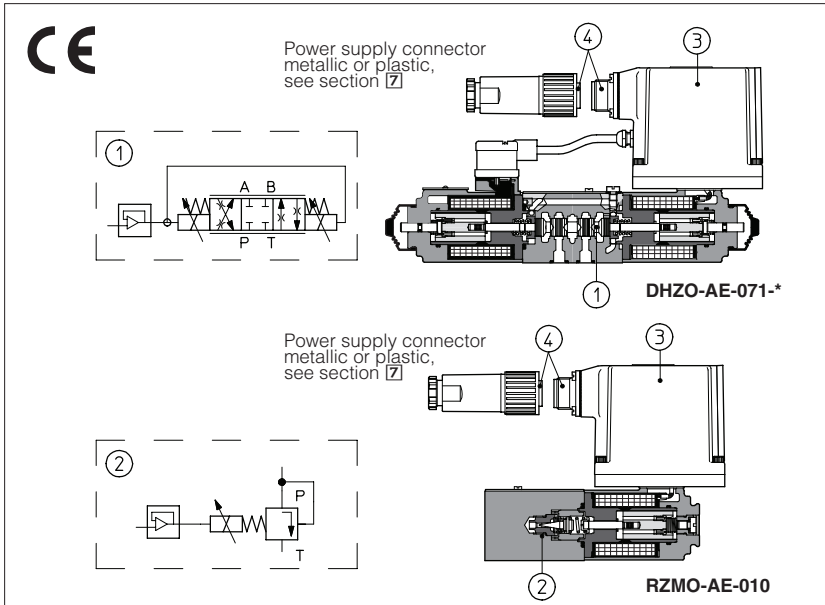


Integral electronic drivers type E-RI-AE

analog, for proportional valves without transducer



These drivers are integral to Atos proportional valves without pressure or position transducer, and they control the current to the solenoid, regulating the spool position ①, the flow or the pressure ② according to the electronic reference signal.

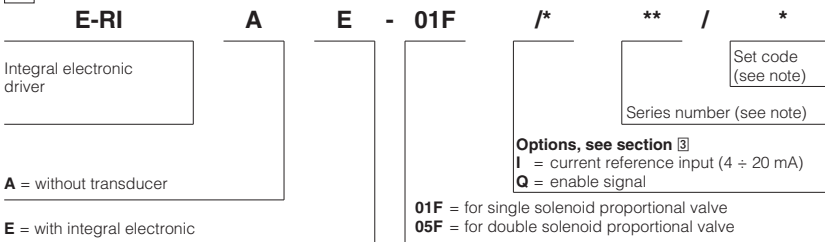
Features:

- integral electronics ③, factory preset
- potentiometer adjustment of bias, scale and ramps
- dissymmetrical up and down ramps
- internal selectors for dither frequency adjustment
- 7 pins connector ④ arranged to receive the power supply, the reference signal (input) and to supply the monitor of the regulated current (output)
- IP67 protection degree
- 3,3A maximum current to the coils
- CE marking grants the conformity to the EMC Directive (Electromagnetic Compatibility).

Applications:

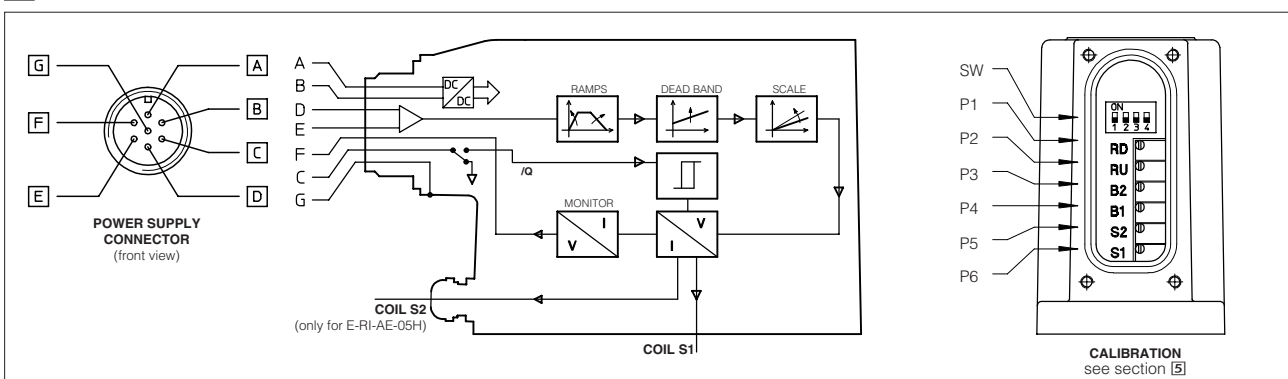
Integrated solution for open loop valves.

1 MODEL CODE: PROPORTIONAL VALVES WITH INTEGRAL DRIVERS



Note: the set code identifies the correspondance between the integral driver and the relevant valve.

2 ELECTRONIC AND WIRING BLOCK DIAGRAM FOR -AE (7 PINS CONNECTOR)



POWER SUPPLY CONNECTOR				
PIN	SIGNAL DESCRIPTION	TECHNICAL SPECIFICATIONS	OPTION /I	OPTION /Q
A	Power supply 24 V _{dc}	Stabilized: +24V _{dc}	Stabilized: +24V _{dc}	
B	Power supply zero	Filtered and rectified: V _{rms} = 21 ± 33 (ripple max 2V _{pp})	Filtered and rectified: V _{rms} = 21 ± 33 (ripple max 2V _{pp})	
C	Signale zero	Reference 0 V _{dc}	Reference 0 V _{dc}	Enabling input - normal working 24V _{dc}
D	Input +	0 ÷ 10 V _{dc} (for single solenoid valve)	4÷20 mA	0 ÷ 10 V _{dc} (for single solenoid valve)
E	Input -	± 10 V _{dc} (for double solenoid valve)		± 10 V _{dc} (for double solenoid valve)
F	Monitor (driving current)	0 ÷ 5V ± 5V (for single solenoid valve) 1V = 1A (for double solenoid valve) (referred to pin C)	0 ÷ 5V ± 5V (for double solenoid valve) 1V = 1A (Referred to Pin C)	0 ÷ 5V ± 5V (for single solenoid valve) 1V = 1A (for double solenoid valve) (referred to pin B)
G	Earth	Connect only when the power supply is not conform to VDE 0551 (CEI 14/6)	Earth	Earth

3 OPTIONS

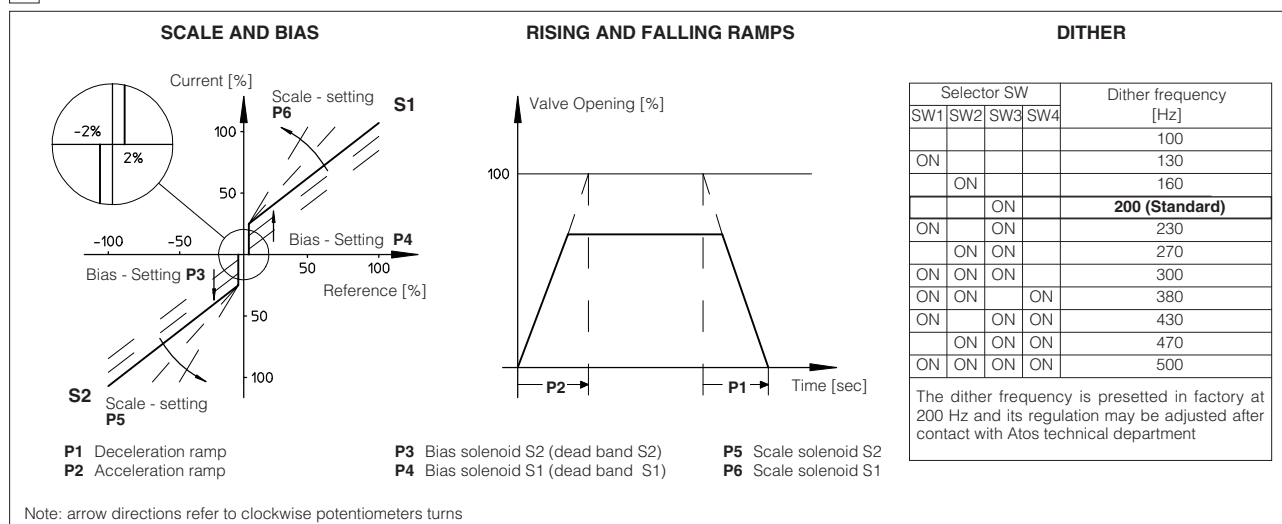
3.1 Option /I It provides the 4±20 mA current reference signal and the current feedback signals instead of the standard 0÷10 V (± 10V). It is normally used in case of long distance between the machine control unit and the valve or where the reference signal can be affected by electrical noise. In case of breakage of the reference signal cable, the valve functioning is disabled.

3.2 Option /Q Safety option providing the possibility to enable or disable the valve functioning without cutting the power supply.

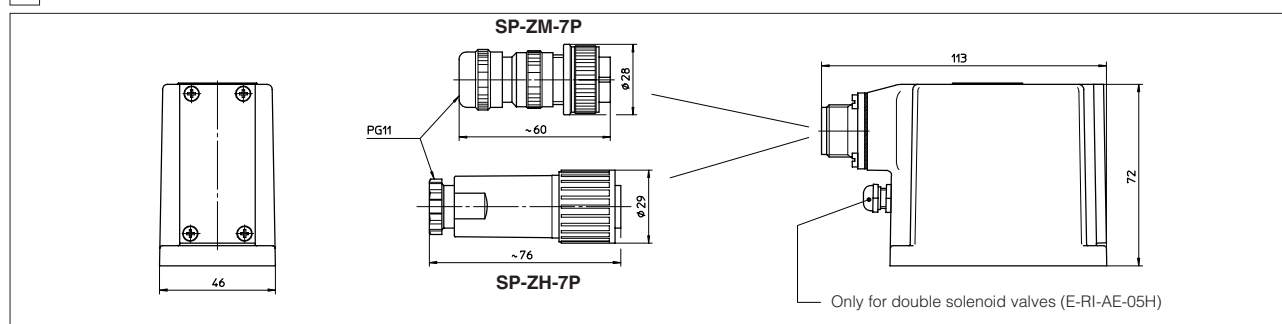
4 MAIN CHARACTERISTICS OF E-RI-AE ELECTRONIC DRIVERS

Driver section	
Format	Sealed box on the valve - Protection: IP67 DIN 40050 - Insulation: VDE0110
Electromagnetic compatibility (EMC)	Emission: EN 50081-2 - Immunity: EN 50082-2
Max power consumption	50 W
Current supplied to solenoids	Imax= 3.3 A square wave PWM type
Input signal impedance	Voltage signal Ri > 10 KΩ (option /I Ri = 316 Ω)
Operating temperature	-20°C ÷ +60°C (storage -20° ÷ +70°C)
Features	Rapid solenoid excitation and switching off Output to solenoids protected against accidental short circuits
Notes	For installation and set-up refer to the table "Installation of proportional valves ZO-A" enclosed with the product

5 AVAILABLE SETTINGS



6 DIMENSIONS OF THE ELECTRONIC DRIVER AND CONNECTORS [mm]



7 CHARACTERISTICS OF POWER SUPPLY CONNECTORS (to be ordered separately)

CONNECTOR TYPE	POWER SUPPLY CONNECTOR	
	SP-ZH-7P	SP-ZM-7P
CODE		
TYPE	Female straight circular socket plug 7 pins	
MATERIAL	Plastic reinforced with fiber glass	Aluminium alloy with cadmium plating
CABLE GLAND	PG11	
CABLE	LiYCY 7 x 0.75 mm ² - max 20m 7 x 1 mm ² - max 40m	
CONNECTION TYPE	to solder	
STANDARD	DIN 43563-BF6-3-PG11	According to MIL-C-5015 G
PROTECTION (DIN 40050)	IP 67	IP 66