

- ✂ **IECEX certified**
- ✂ **Wide operating voltage range**
- ✂ **Low current consumption**
- ✂ **Wide operating temperature range**
- ✂ **3/2-way function**
- ✂ **High flow rate**
- ✂ **IP65**
- ✂ **Engine emergency shutdown**
- ✂ **IEC61508 SIL2**



## DESCRIPTION

The solenoid magnetic coil type AC10-Z3-6-PD94 is an intrinsically safe actuating coil assembly that may be fitted (pushed-over) to a variety of pneumatic valve bodies. These valves may then be used to control engines, vehicles and plant located in group I hazardous areas.

The solenoid coil has a wide operating voltage range from 9.0 volts to 23.1 volts and consumes only 29mA to allow use with barriers that have a linear (resistive) current limiting characteristic.

The wide operating ambient temperature range of -35°C to +75°C further increases the solenoids ability to be used in controlling the pneumatic subsystems of hazardous area located plant.

The electrical connections to the solenoid are via a DIN 175301 connector VALVE01A.

The solenoid magnetic coil is typically sold by Austdac with a type 6014 direct acting 3/2 way brass valve body suitable for most underground coal mining applications.

This valve and solenoid coil combination can provide a 30L/min flow rate through a 0.9mm orifice at pressures ranging from a vacuum to 10 bar.

For greater flow rates the AC10-Z3-6-PD94 and 6014 combination can be used in conjunction with a quick exhaust valve type VALVE03.

The solenoid valve finds applications in underground vehicles to provide emergency engine shutdown or in general pneumatic control of these vehicles or in fixed situations such as longwalls and gas monitoring systems.

## CERTIFICATION

The Solenoid Magnetic Coil is IECEX certified for use in group I hazardous areas under certificate

IECEX TSA 08.0006X Ex ia I IP54.

## SPECIFICATION

### AC10-Z3-6-PD94 COIL

Name	Solenoid valve
Type	AC10-Z3-6-PD94
Operating current	29mA (nominal)
Minimum operating voltage	9.0V @ +20°C 10.44V @ +55°C
Nominal coil resistance	310Ω @ +20°C 360Ω @ +55°C
Electrical connections	DIN EN 175301-803 compliant connector
Maximum conductor size	1.5mm <sup>2</sup>
Ingress protection	IP65 with connector
Tamb	-35°C to +75°C
Mass	450g
Operating voltage range	9.0V to 23Vdc
Ui	23.1Vdc
Ii	625mA
Pi	3.6W
Ci	0uF
Li	0uH

### 6014 VALVE BODY

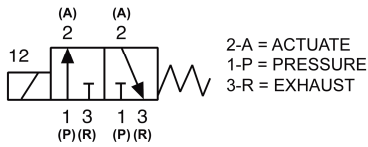
Function	3/2-way valve NC
Orifice	0.9mm
QNm value	30L/min
Pressure range	Vacuum to 10 bar
Seal material	FKM
Body material	Brass
Threaded ports	G1/8
Mounting holes	4 x M4 8mm deep
Mounting centres	24mm x 24mm
Li	0uH

### SAFETY DATA

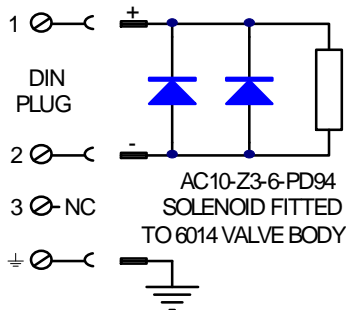
PFD <sub>AVG</sub>	2.76x10 <sup>-4</sup>
T <sub>PROOF</sub>	1 year
SFF	73%
λ <sub>SAFE</sub>	176 FIT
λ <sub>DANGEROUS</sub>	63 FIT

## FUNCTION

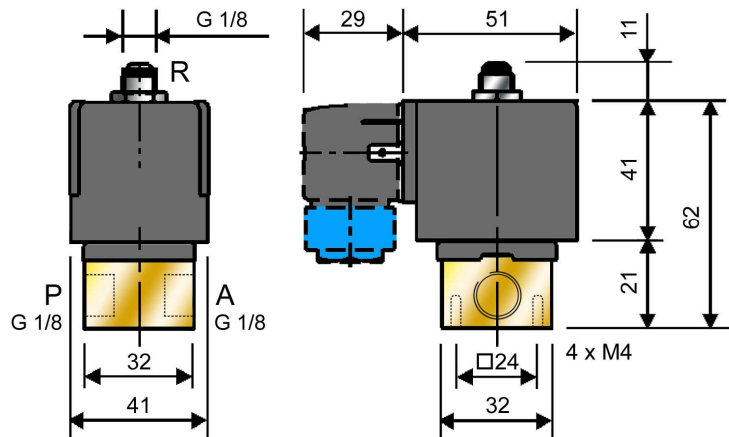
C 3/2-way valve NC



## CONNECTION DIAGRAM



## DIMENSIONS



## ORDERING DETAILS

DESCRIPTION	ORDER CODE
SOLENOID VALVE	VALVE01
DIN PLUG	VALVE01A