

3/2-Way; Service port: G 1/8, G 1/4; Supply port: G 1/4
Flow rate: up to 120 l/min



Advantages/Benefits

- ▶ II 2G Ex-m-II T4 / T6
II 2D IP65 T135°C / T85
PTB 00 ATEX 2129X
approval
- ▶ **Lower Total Cost of Ownership**
due to easy installation
- ▶ **Direct and quick mounting**
onto process valves
- ▶ **Low power consumption,**
direct connection to
PLC possible
- ▶ **Any desired mounting**
position
- ▶ **Coil can be locked in**
4 x 90° positions or
freely moved in between,
as required
- ▶ **Compact design**

Design/Function

The banjo valve types are pneumatic single pilot valves designed for a quick mounting onto pneumatic actuators e.g. process valves. Simply screwed into the pressure port of the actuator the banjo valve can take up any position as the valve body as well as the pressure inlet are turnable.

In addition the banjo valve type 6014, based on a modular concept, has a push-over coil, which can be locked in any position.

The banjo valve concept provides flexibility to meet any kind of application requirements:
The air flow rate varies from 55 l/min to 120 l/min, the pressure range from 0 bar up to 16 bar.

The valve body is made of polyamide or brass, the banjo coupler is anodized aluminium and the internal parts are made of stainless steel.

Our banjo valve 6014 can be delivered as Ex m II T4 / T6 version.

Applications

Fluids

Neutral gases, compressed air

Applications

In hazardous areas

- Pneumatic control
- Pilot control valve for pneumatic controlled process valves

Technical Data Type 6014 banjo Ex

Circuit function

Symbol

C 3/2-way valve,
when de-energized, outlet A
pressure relieved



Operating Data (Valve)

Pressure range	0-16 bar max. (see specifications)
Port connection	See specifications
Orifice	DN 1.5 - DN 2.0 mm
Materials	
Valve body	Polyamide (PA) or brass
Banjo coupler	Aluminium, anodized
Banjo bolt	Brass, nickel-plated
Seal	FKM
Fluid	Neutral gases, e.g. compressed air
Medium temperature	-10° up to +90°C
Max. ambient temperature	-30° up to +60°C
Max. viscosity	21 mm ² /s
Response times [ms]	
Opening ³⁾	10 - 15
Closing ^{3) 4)}	15 - 20

³⁾ Measured at connection 2; time from electrical switching to pressure increase to 90 % (opening) or pressure drop to 10 % (closing) of operational pressure of 6 bar.

⁴⁾ When using electronics (diodes for controlling LEDs or for rectifying), the closing time is delayed 8 up to 10 ms.

Flow rates

DN [mm]	1.2	1.5	2.0
QNn [l/min]	55	75	120

Installation As required, but preferably with solenoid system upright

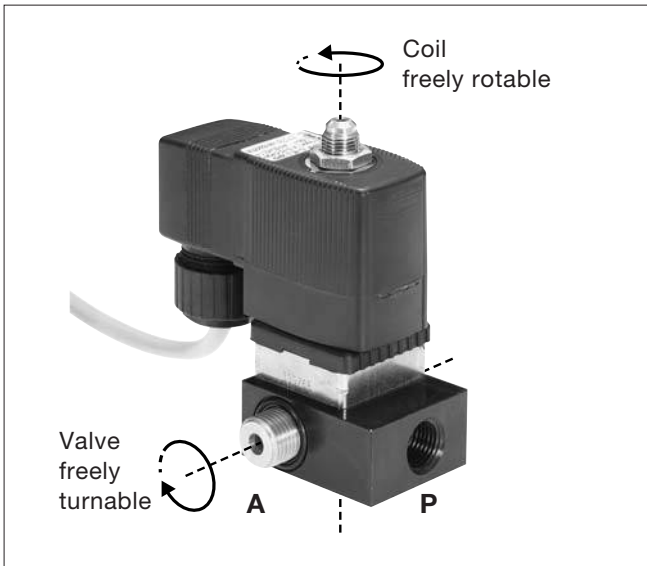
Operating Data (Actuator)

Operating voltages	24, 110, and 230 V/UC						
Voltage tolerance	±10 %						
Power consumption	<table border="1"> <tr> <td>T4 coil</td> <td>T6 coil</td> </tr> <tr> <td>40 mm</td> <td>40 mm</td> </tr> <tr> <td>9 W</td> <td>1.8 W</td> </tr> </table>	T4 coil	T6 coil	40 mm	40 mm	9 W	1.8 W
T4 coil	T6 coil						
40 mm	40 mm						
9 W	1.8 W						
Duty cycle	100% continuously rated						
Protection class	IP 65						
Electr. connection	With cable (3 m length) or with terminal box						
Ex-approval	II 2G Ex-m-II T4 / T6 and II 2D IP65 T135°C / 85°C PTB 00 ATEX 2129X						

Direct Mounting Pneumatic Pilot Valves for the process industry



Installation



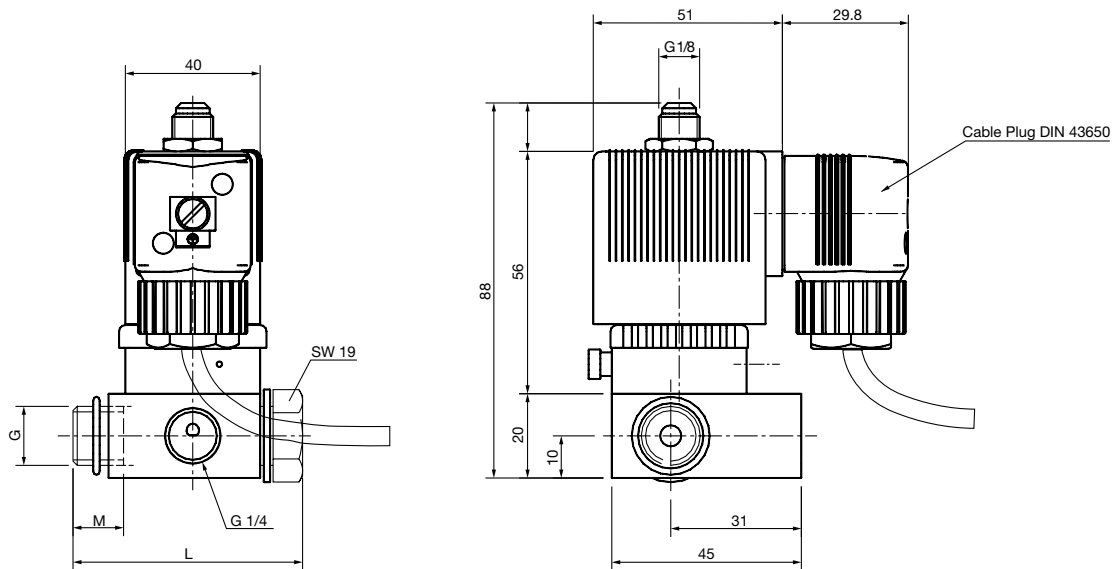
Specifications - Ordering Chart (Other Versions on Request)

Circuit function	Orifice [mm]	Port connection P	Port connection A	Coil [mm]	Power consumption [W]	Pressure range [bar]	Seal material	Ex approval	Item-No.		
									024 V AC/DC	110 V AC/DC	230 V AC/DC
Type 6014 banjo Ex with PA body											
with moulded-in cable (3000 mm length)											
C	1.5	G 1/4	G 1/8	40.0	1.8	0 - 6	FKM	Ex m II T6	431 430 M	431 431 A	431 432 B
C	1.5	G 1/4	G 1/4	40.0	1.8	0 - 6	FKM	Ex m II T6	431 400 Y	431 401 M	431 402 N
with terminal box											
C	1.5	G 1/4	G 1/8	40.0	1.8	0 - 6	FKM	Ex me II T6	431 433 C	431 434 D	431 435 E
C	1.5	G 1/4	G 1/4	40.0	1.8	0 - 6	FKM	Ex me II T6	431 403 P	431 404 Q	431 405 R
Type 6014 banjo Ex with Brass body											
with moulded-in cable (3000 mm length)											
C	2.0	G 1/4	G 1/8	40.0	1.8	0 - 3.5	FKM	Ex m II T6	431 424 B	431 425 C	431 426 D
C	2.0	G 1/4	G 1/4	40.0	1.8	0 - 3.5	FKM	Ex m II T6	431 394 M	431 395 N	431 396 P
C	1.5	G 1/4	G 1/8	40.0	9.0	0 - 16	FKM	Ex m II T4	431 406 J	431 407 K	431 408 U
C	1.5	G 1/4	G 1/8	40.0	1.8	0 - 6	FKM	Ex m II T6	431 418 M	431 419 N	431 420 K
C	1.5	G 1/4	G 1/4	40.0	9.0	0 - 16	FKM	Ex m II T4	431 376 S	431 377 T	431 378 C
C	1.5	G 1/4	G 1/4	40.0	1.8	0 - 6	FKM	Ex m II T6	431 388 X	431 389 Y	431 390 V
C	2.0	G 1/4	G 1/8	40.0	9.0	0 - 10	FKM	Ex m II T4	431 412 F	431 413 G	431 414 H
C	2.0	G 1/4	G 1/4	40.0	9.0	0 - 10	FKM	Ex m II T4	431 382 R	431 383 J	431 384 K

Direct Mounting Pneumatic Pilot Valves for the process industry

Ex Type 6014
banjo

Dimensions [mm]



G 1/4	54	9.5
G 1/8	51	6.5
G	L	M