3/2-Way; G 1/8, G 1/4 and sub-base connection; DN 1,5 – 2,5 mm; flow rate: up to 175 l/min

Advantages/Benefits

- **EEx-m-II T4, T5 and T6 or EEx-me-II T4, T5 and T6 approval**
- **Coil can be changed easy with valve in place**
- **Coil can be locked in 4x 90° positions or move freely between, as required**
- **Medium is only in contact with the valve internals and body**
- **High-quality seal material FPM (Viton) standard**

Design/Function

The valves are based on a modular concept comprising two basic elements: Valve assembly and push-over coil with moulded-in cable or with terminal box.

The valve assembly consists of a body to which the armature guide tube containing the plunger, seals and springs is attached.
The coil is pushed over the guide tube and thus isolated from the medium.
The medium is only in contact with the valve internals and body.

Valves are available in polyamide, brass or stainless steel. All valves have high quality viton (FPM) seals as standard.

Applications

Fluids

Compressed air

Suitable for technical vacuum

Applications

- In hazardous areas
- General Pneumatic
- Control of process valves
- Pilot control valve for pneumatic directional control valves
- Control of cylinders

bürkert Easy Fluid Control Systems

Compact Solenoid Valve - Pneumatic

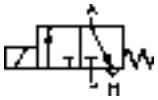
Type 6014

Technical data type 6014 Ex

Circuit function

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

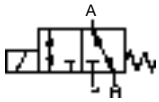
Symbol



Circuit function

T Universal mixer or distributor valve,
when de-energized R ⇔ A open
and P ⇔ A closed,
for universal use

Symbol



Specifications

Circuit function	Orifice DN [mm]	Flow rate QNn value air [l/min]	Coil size / power consumption	Pressure range [bar]
C	1.2	55	40 mm / 1.8 W	0 - 10
C	1.2	55	32 mm / 3 W	0 - 10
C	1.5	75	32 mm / 7 W	0 - 10
C	2.0	120	32 mm / 7 W	0 - 6
C	2.0	120	40 mm / 9 W	0 - 10
C	2.5	175	40 mm / 9 W	0 - 6
T	1.5	75	40 mm / 9 W	0 - 7

Operating Data (Valve)

Valve body	Brass Stainless Steel PA
Seal material	FPM
Pressure range	0-10 bar max. (see specifications)
Port connection	G 1/8, G 1/4 and Sub-base connection
Orifice	DN 1.5, 2.0 and 2.5 mm
Fluid	Neutral gases and fluids as e.g. compressed air, town and natural gas, water, hydraulic oil, technical vacuum
Medium temperature	–10 up to +90 °C
Max. ambient temperature	
Single valve	T4 & T5: -30 up to +60 °C
Block mounted	T4: -30 up to +40 °C
	T5: -30 up to +50 °C
	T6: -30 up to +60 °C
Max. viscosity	21 mm^2/s

Response times [ms]	Opening[3]	Closing[3] [4]
DN 1.5 Flange	10 - 15	15 - 20
DN 2.0 Flange	10 - 15	15 - 20
DN 1.5 G 1/8, 1/4	10 - 15	15 - 20
DN 2.0 G 1/8, 1/4	10 - 15	15 - 20
DN 2.5 G 1/8, 1/4	15 - 20	10 - 22

Installation	as required, but preferably with solenoid system upright

Operating Data (Actuator)

Operating voltages	24, 110, 230 V/UC
Voltage tolerance	±10 %
Power consumption	T4 coil 32 mm 7 W / T4 coil 40 mm 9 W / T5 coil 32 mm 3 W / T6 coil 40 mm 1,8 W
Duty cycle	100 % continuously rated
Cycling rate	up to 1 000 c.p.m.
Rating	IP 65
Ex-approval	EEx-m-II T4, T5 and T6 or EEx-me-II T4, T5 and T6

[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.

Specifications - Ordering Chart (Other Versions on Request)

6014 Ex-coil with moulded cable (3 m length)

Circuit function	Orifice DN [mm]	Manual override	Port connection	Coil [mm]	Power consumption [W]	Pressure range [bar] 1) 2)	Body material	Seal material	Ex-approval	Item No. Voltage 024/UC	110/UC	230/UC
Extendable versions:												
C	1.2*	YES	Sub Base	32.0	3.0	0 - 10	PA	FPM	EEx-m-II T5	140 002 G	140 003 H	140 004 A
C	1.5	YES	Sub Base	32.0	7.0	0 - 10	PA	FPM	EEx-m-II T4	136 100 T	136 101 Q	136 102 R
C	1.5	YES	Sub Base	32.0	7.0	0 - 10	Brass	FPM	EEx-m-II T4	136 106 M	136 107 N	136 108 X
C	2.0	YES	Sub Base	32.0	7.0	0 - 6	Brass	FPM	EEx-m-II T4	136 109 Y	136 110 L	136 111 H
Not extendable versions:												
C	1.2*	YES	Sub Base	32.0	3.0	0 - 10	PA	FPM	EEx-m-II T5	136 103 J	136 104 K	136 105 L
C	1.2*	YES	Sub Base	40.0	1.8	0 - 10	PA	FPM	EEx-m-II T6	136 552 K	136 553 L	136 554 M
C	2.0	NO	G 1/8	40.0	9.0	0 - 10	Brass	FPM	EEx-m-II T4	136 076 R	136 077 J	136 078 T
C	2.0	NO	G 1/4	40.0	9.0	0 - 10	Brass	FPM	EEx-m-II T4	136 079 U	136 080 J	136 081 F
C	2.5	NO	G 1/8	40.0	9.0	0 - 6	Brass	FPM	EEx-m-II T4	136 082 G	136 083 H	136 084 A
C	2.5	NO	G 1/4	40.0	9.0	0 - 6	Brass	FPM	EEx-m-II T4	136 085 B	136 086 C	136 087 D
C	2.0	YES	G 1/8	40.0	9.0	0 - 10	Brass	FPM	EEx-m-II T4	136 088 N	136 089 P	136 090 L
C	2.0	YES	G 1/4	40.0	9.0	0 - 10	Brass	FPM	EEx-m-II T4	136 091 H	136 092 A	136 093 B
C	2.5	YES	G 1/8	40.0	9.0	0 - 6	Brass	FPM	EEx-m-II T4	139 981 M	139 982 N	139 983 P
C	2.5	YES	G 1/4	40.0	9.0	0 - 6	Brass	FPM	EEx-m-II T4	139 987 K	139 988 U	139 989 V
C	2.0	NO	G 1/8	40.0	9.0	0 - 10	SS	FPM	EEx-m-II T4	136 112 A	136 113 B	136 114 C
C	2.0	NO	G 1/4	40.0	9.0	0 - 10	SS	FPM	EEx-m-II T4	136 115 D	136 116 E	136 117 F
T	1.5	NO	G 1/8	40.0	9.0	0 - 7	Brass	FPM	EEx-m-II T4	136 094 C	136 095 D	136 096 E
T	1.5	NO	G 1/4	40.0	9.0	0 - 7	Brass	FPM	EEx-m-II T4	136 097 F	136 098 Q	136 099 R
T	1.5	NO	G 1/8	40.0	9.0	0 - 7	SS	FPM	EEx-m-II T4	136 118 Q	136 119 R	136 120 N
T	1.5	NO	G 1/4	40.0	9.0	0 - 7	SS	FPM	EEx-m-II T4	136 121 B	136 122 C	136 123 D

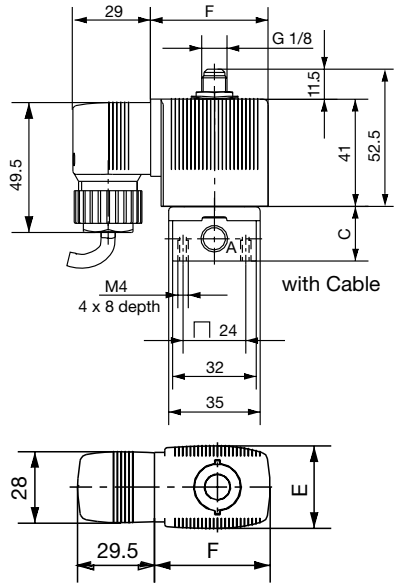
6014 Ex-coil with terminal box

Circuit function	Orifice DN [mm]	Manual override	Port connection	Coil [mm]	Power consumption [W]	Pressure range [bar] 1) 2)	Body material	Seal material	Ex-approval	Item No. Voltage 024/UC	110/UC	230/UC
Not extendable versions:												
C	1.2*	YES	Sub Base	32.0	3.0	0 - 10	PA	FPM	EEx-me-II T5	139 999 X	140 000 J	140 001 F
C	1.2*	YES	Sub Base	40.0	1.8	0 - 10	PA	FPM	EEx-me-II T6	140 005 B	140 006 C	140 007 D
C	1.5	YES	Sub Base	32.0	7.0	0 - 10	PA	FPM	EEx-me-II T4	139 996 L	139 997 M	139 998 W
C	2.0	NO	G 1/8	40.0	9.0	0 - 10	Brass	FPM	EEx-me-II T4	139 963 S	139 964 T	139 965 U
C	2.0	NO	G 1/4	40.0	9.0	0 - 10	Brass	FPM	EEx-me-II T4	139 966 V	139 967 W	139 968 F
C	2.5	NO	G 1/8	40.0	9.0	0 - 6	Brass	FPM	EEx-me-II T4	139 969 G	139 970 D	139 971 S
C	2.5	NO	G 1/4	40.0	9.0	0 - 6	Brass	FPM	EEx-me-II T4	139 972 T	139 973 U	139 974 V
C	2.0	YES	G 1/8	40.0	9.0	0 - 10	Brass	FPM	EEx-me-II T4	139 975 W	139 976 X	139 977 Y
C	2.0	YES	G 1/4	40.0	9.0	0 - 10	Brass	FPM	EEx-me-II T4	139 978 H	139 979 A	139 980 Y
C	2.5	YES	G 1/8	40.0	9.0	0 - 6	Brass	FPM	EEx-me-II T4	139 984 Q	139 985 R	139 986 J
C	2.5	YES	G 1/4	40.0	9.0	0 - 6	Brass	FPM	EEx-me-II T4	139 990 S	139 991 P	139 992 Q
C	2.0	NO	G 1/8	40.0	9.0	0 - 10	SS	FPM	EEx-me-II T4	140 011 Y	140 012 Z	140 013 S
C	2.0	NO	G 1/4	40.0	9.0	0 - 10	SS	FPM	EEx-me-II T4	140 014 T	140 015 U	140 016 V
T	1.5	NO	G 1/8	40.0	9.0	0 - 7	Brass	FPM	EEx-me-II T4	139 993 R	139 994 J	139 995 K
T	1.5	NO	G 1/8	40.0	9.0	0 - 7	SS	FPM	EEx-me-II T4	140 017 W	140 018 F	140 019 G
T	1.5	NO	G 1/4	40.0	9.0	0 - 7	SS	FPM	EEx-me-II T4	140 020 D	140 021 S	140 022 T

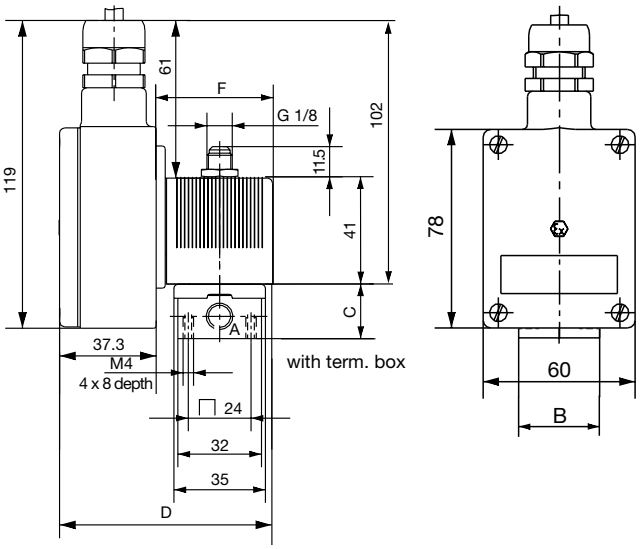
* Circuit function C, DN 1.2 mm: P-orifice 1.2 mm, exhaust orifice 1.5 mm
1) Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C.
2) All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

Dimensions (in mm)

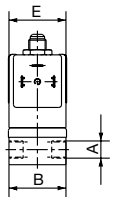
With cable



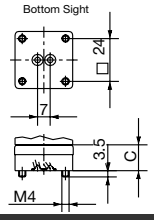
With terminal box



Threaded version



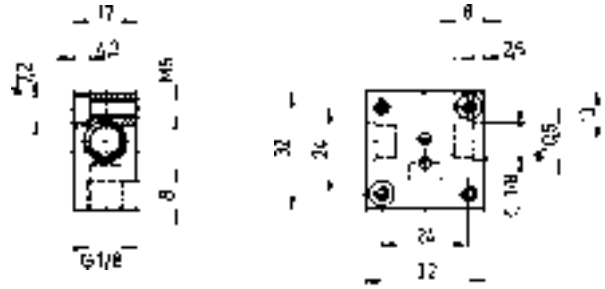
Sub-base version



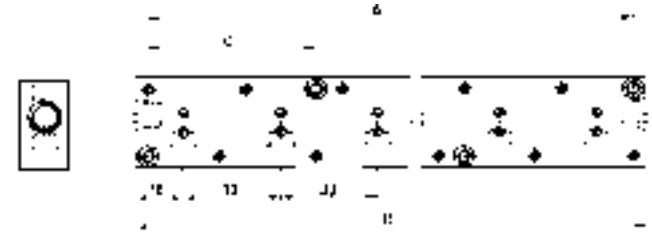
	Armature						
	A	B	C	D	E	F	Coil size
Threaded Port	1/8	32	20.8	32.6	32	45	32
	1/4	46	26.8	49	40	51	40
Sub-base	1/8	32	14.3	32.6	32	45	32

Dimensions Accessories (in mm)

Single manifold



Multiple manifold



Multiple manifold

The pressure port of the manifold is marked with P (R), the outlet port with A (B). Only similar ports can be coupled together.
Unused connections to be plugged (see accessories).
Manifolds may be coupled together using special push-fit O-ring connection nipples for linking the pressure inlets P (R).
Manifolds joined together in this way should be securely mounted.

Ordering Chart for Manifolds/Accessories

Device/Accessory	Features			Item No.
Single manifold	Aluminium			005 020 W
Multiple manifold (aluminium)	Hole spacing A	Overall length B	Hole spacing C	
2 valves	57	65	–	005 023 M
3 valves	90	98	–	005 286 S
4 valves	123	131	–	005 287 T
5 valves	156	164	57	005 035 R
6 valves	189	197	57	005 038 U
8 valves	255	263	57	005 386 W
10 valves	321	329	90	005 764 G
Connector nipples	with O-rings			005 040 A
Blanking screw	with seal ring, G 1/8			005 041 X
Blanking plug	with screws + 0-ring			005 630 E