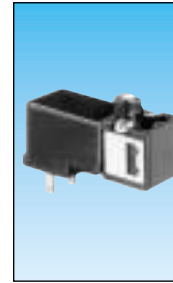
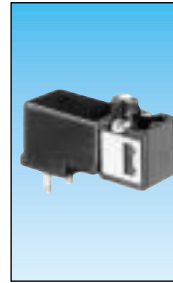
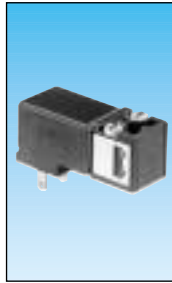




# Intrinsically safe miniature solenoid valves EEx ia II C T6

LCIE approval  
no. 93 C 6014X

For mounting on sub-base or footprint in  
accordance with CNOMO recommendation  
E 06-36-120N



## Part numbers (and voltages)

	Voltage	max. power consumption			
U nominal					
Supply voltage (barrier output or interface) between 5 and 18 Vdc inc.	12 Vdc	0.70 W	<b>81 519 034</b>	<b>81 519 334</b>	<b>81 519 634</b>
U nominal					
Supply voltage (barrier output or interface) between 12 and 28 Vdc inc.	24 Vdc	0.70 W	<b>81 519 035</b>	<b>81 519 335</b>	<b>81 519 635</b>
Function			3/2 NC	3/2 NC	3/2 NC
Versions	Without manual override		●	—	—
	With manual override		—	impulse	latched (1/4 turn)

## Symbols



## Characteristics

Permitted fluids	filtered 10 µ, lubricated (ASTM2) or not	air or inert gases	air or inert gases	air or inert gases
Operating pressure	bars	1 → 7	1 → 7	1 → 7
Orifice diameter	mm	0.5	0.5	0.5
Flow at 6 bars	NL/min	12	12	12
Flow coefficient	KV	0.12	0.12	0.12
Temperature	operating °C	- 10 + 50	- 10 + 50	- 10 + 50
	fluid °C	- 10 + 30	- 10 + 30	- 10 + 30
Switching time	ms	8 to 15	8 to 15	8 to 15
Mechanical life	operations	≤ 1.5 x 10 <sup>7</sup>	≤ 1.5 x 10 <sup>7</sup>	≤ 1.5 x 10 <sup>7</sup>
Construction	Stainless steel, brass NBR, PA 66	●	●	●
Weight	g	35	35	35
Duty factor		100% ED	100% ED	100% ED
Insulation class	IEC 85	F	F	F
Degree of protection (IEC 529)	with connector 81 516 082 (see page 6/5)	IP 65	IP 65	IP 65
	with sub-bases 81 513.../81 514... (see page 6/4)	IP 20	IP 20	IP 20

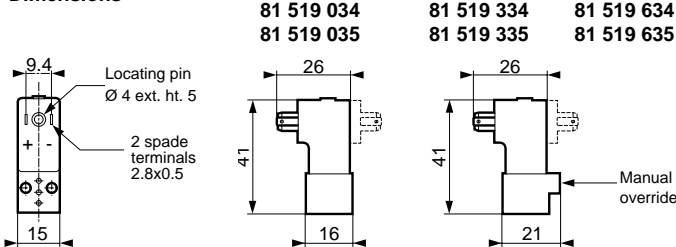
## Pneumatic connections

Geometry of footprint		see below	see below	see below
via associable bases	types 81 514 106 or 81 514 166	see page 6/4	see page 6/4	see page 6/4
On modules	types 81 513 100 /200 /600	see page 5/8	see page 5/8	see page 5/8
	types 81 516 100 /200	see page 5/8	see page 5/8	see page 5/8

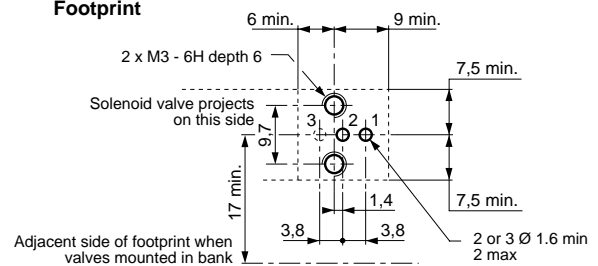
## Electrical connections

2 spade terminals on coil	90° rotatable	see below	see below	see below
via connector 81 516 082	90° rotatable	see page 6/5	see page 6/5	see page 6/5
via associable bases	types 81 514 106 /166	see page 6/4	see page 6/4	see page 6/4
	types 81 513 075 /076	see page 6/4	see page 6/4	see page 6/4
	types 81 517 106 /206	see page 6/4	see page 6/4	see page 6/4

## Dimensions



## Footprint



## Other information

**Note :**  
Our intrinsically safe miniature solenoid valves have a locating pin which prevents their mounting on our standard sub-bases. They must be used only with our sub-bases approved to EEx ia II C T6 as shown on page 6/6.  
To achieve EEx ia II C T6 when using a plug type connector, only our connector 81 516 082 (approved for use with our miniature solenoid valves 81 519...) must be used.

## To order, specify :

Standard products

**1** Part number  
Example : Intrinsically safe miniature solenoid valve - 81 519 034

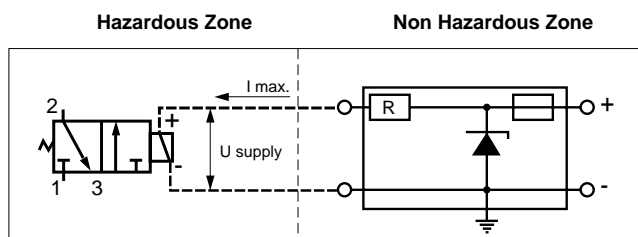
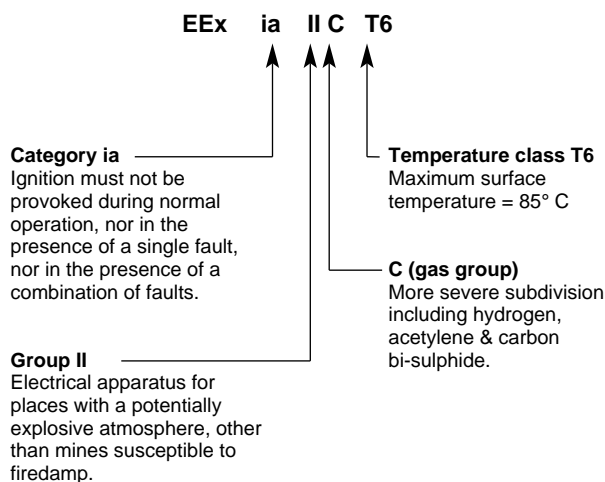


## General information

Low consumption (0.7W), CROUZET 3/2 miniature solenoid valves comply with European Standards EN 50014 and EN 50020 relating to equipment operating in potentially explosive atmospheres. These intrinsically safe products are recommended for the chemical, petrochemical, gas and mining industries, etc.

## Important :

These intrinsically safe miniature solenoid valves must be individually connected to an approved safety barrier. Placed in a safe zone, these barriers make it possible to supply intrinsically safe miniature solenoid valves installed in a hazardous zone.



### Safety description (to LCIE approval no. 93 C 6014 X)

	81 519 034 /334	81 519 035 /335
U source EEx	≤ 18 V	≤ 28 V
I max. / coil	≤ 74 mA	≤ 37 mA

U supply = source of intrinsically safe supply to the miniature solenoid valve.

I max. / coil = maximum current across the coil.

The electrical connection between the safety barrier (or interface) and the miniature solenoid valve can be made with ordinary wires or cables. The inductance of the connecting line between the safety barrier and the solenoid valve must be less than 0.5 mH.

## Recommended barriers and interfaces

These CROUZET recommended safety barriers and interfaces can be obtained from the manufacturers indicated below. When ordering, specify that they are to be used to supply miniature solenoid valves (type 81 519) EEx ia II C T6, LCIE no. 93.C6014 X.

### For 12 Vdc miniature solenoid valves part numbers : 81 519 034 / 81 519 334

Manufacturer	Barrier reference	Interface reference	Approval laboratory	Gas group	Authorised zones	V supply barrier / interface
GEORGIN	BZC 13/100/1/179	AVB 131	LCIE	II C	all zones	12 Vdc +/- 10%
MEASUREMENT TECHNOLOGY LTD	MTL 715 +		LCIE	II C	all zones	220 Vac +/- 10%
STAHL	9004/01-168-050-00	ICS 1000 9451/12-01-10	PTB	II C	zones 1 and 2	12 Vdc +10% -15%
			BVS	II C	zones 1 and 2	24 Vdc +10% -15%

### For 24 Vdc miniature solenoid valves part numbers : 81 519 035 / 81 519 335

Manufacturer	Barrier reference	Interface reference	Approval laboratory	Gas group	Authorised zones	V supply barrier / interface
GEORGIN	BZC 24/63/1/4A	AVB 109	LCIE	II C	all zones	24 Vdc +/- 10%
MEASUREMENT TECHNOLOGY LTD	MTL 728 + MTL 708 +		LCIE	II C	all zones	220 Vac +/- 10%
		MTL 2241	BASEEFA	II C		20 to 26.6 Vdc
		MTL 3021	BASEEFA	II C		21 to 35 Vdc
PEPPERL & FUCHS	Z 428 EX		BASEEFA	II C	all zones	180 to 260 Vac
		KHD3-ISD/EX148-90A	BASEEFA	II C		20 to 35 Vdc
STAHL	9004/01-280-025-00	ICS 1000 9451/12-02-10	PTB	II C	zones 1 and 2	20 to 28 Vdc
		ELVA-15/130+A230	BVS	II C	zones 1 and 2	20 to 30 Vdc
A PUISSANCE 3			LCIE	II C	all zones	230 V 50 Hz general power supply + 24 Vdc control