

# ***CITOLINE***

New MIG/MAG power sources range  
switched technology

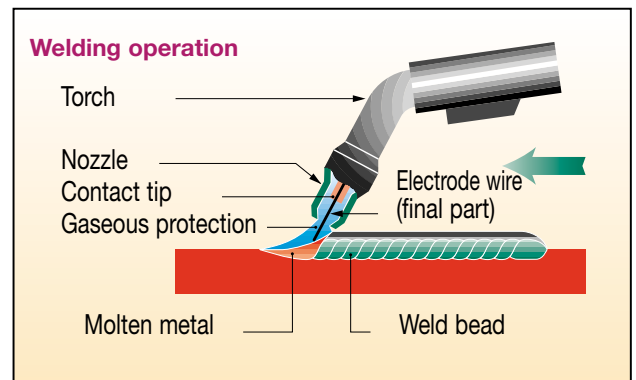
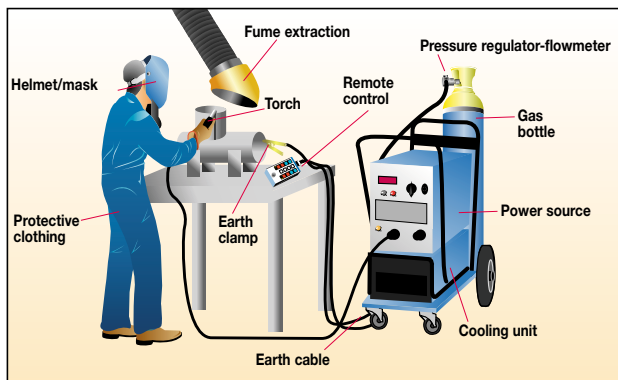


# CITOLINE: simplicity and efficiency

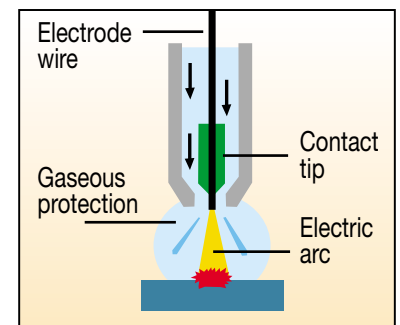


## Primary power supply cable connection:

**Single-phase** 230 V = connection between phase and neutral  
 400 V = connection between 2 phases  
**Three-phase** 400 V = connection between 3 phases  
 230 V = connection between 3 phases  
 230 V three-phase only exists in certain companies that have their own transformer.



**The MIG (Metal Inert Gas) and MAG (Metal Active Gas) welding implement an electric arc under gaseous protection (inert gas: Argon+CO<sub>2</sub>).**  
**The wire that constitutes the consumable electrode is continuously unrolled in the electric arc and is deposited in the molten metal.**



## MIG welding glossary

### CE European standards

They warranty quality, electrical and mechanical characteristics and the safety level of an equipment.  
 The Oerlikon power sources are certified CE.

These standards define manufacturing according to 2 directives:

- 89/336/CEE relative to the electro-magnetic compatibility (CEM), which imposes limitation in the electro-magnetic disturbance respecting the EN 50 199 standard.
- BT 73/23/CEE relative to the safety rules for welding equipments respecting the EN 60 974-1 standard.

### Protection Class IP

The first digit indicates the maximum diameter of an object to be introduced inside the equipment and that could come into contact with an element under dangerous tension.

The second digit indicates the protection level against falling rain.  
 Ex: IP 23 (the 2 means that an object of 12.5 mm diameter can be introduced in the device, the 3 means that it is protected against falling rain up to a maximum angle of 60°).

### 2 times mode

The welding occurs by pulling the torch's trigger.  
 It stops by loosening the trigger.

### Classical 4 times mode

The pre-gas occurs by pushing the trigger, afterwards the welding starts by loosening it then with the next push on the trigger the welding stops and the post-gas stays active until releasing the trigger.

### Spot mode

The power source starts to weld when the trigger is pushed, but the welding stops automatically after a pre-set delay.

### Intermittance mode

This is a point mode which is repeatable. If the push on the trigger is maintained, the welding will be retaken after an other delay which is as well to be regulated.

### Duty cycle

It is defined in the standard EN 60974-1. It corresponds to the continuous use of an equipment during 10 minutes at a temperature of 40 °C. A duty cycle of 100 A at 60%, means that during 10 minutes, the power source can weld during 6 mn at 100 A followed by 4 mn of stop. A duty cycle 100 A at 100% means that the power source can provide continuously 100 A.

# Wide choice for a better satisfaction.

The complete CITOLINE range was designed with the welding professional in mind. The CITOLINE range offers an industrial solution with a 35% duty cycle making it ideal for maintenance/repair and manufacturing applications. The complete range and reliability make it one of the MIG references in today's market.

Designation	Duty cycle	Supply	Feeding	Steel. Stainless steel (mm)	Aluminium (mm)	Cored wire (mm)	Display
CITOLINE 1700 M	140 A (18%)	single-phase	2 rollers	0.6 to 1.0	0.8 to 1.0	1.0	No
CITOLINE 2000 M	180 A (20%)	single-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Option
CITOLINE 2000 T	200 A (30%)	three-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Option
CITOLINE 2500 M	250 A (30%)	single-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Option
CITOLINE 2500 T	250 A (30%)	three-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Option
CITOLINE 3000 M	300 A (30%)	single-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Option
CITOLINE 3000 T	300 A (35%)	three-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 3500 T	350 A (35%)	three-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 2500 MS	250 A (30%)	single-phase	4 rollers	0.6 to 1.0	0.8 to 1.0	1.0	Yes
CITOLINE 3000 MS	300 A (30%)	single-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 3000 TS	300 A (35%)	three-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 3500 TS	350 A (35%)	three-phase	4 rollers	0.8 to 1.2	1.0 to 1.2	1.0 to 1.2	Yes
CITOLINE 4500 TS	450 A (35%)	three-phase	4 rollers	0.8 to 1.6	1.0 to 1.6	1.0 to 1.6	Yes
CITOLINE 4500 TS (W)	450 A (35%)	three-phase	4 rollers	0.8 to 1.6	1.0 to 1.6	1.0 to 1.6	Yes

## Welding performance and ergonomy



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### Power source:

- Compact and light due to the dynamical self-adjusting power transformer technology.

### Controlled striking

- Possibility to adjust the striking speed.
- Stick out adjustment.

### 4 rollers mounting plate:

- Equipped with self-adjusting pressure idle rollers to improve feeding quality and avoid unevenness.

### Flexibility

- Reverse polarity for gasless cored wire application (compact version).



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### Easy to use

- Inclined front panel for a complete view.
- Wire feeder with wheels.
- Wire feeder easily storable on the power source.
- Large pivot foot to allow easy installation of the wire feeder.



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# CITOLINE M: single-phase range.



## Basic equipment:

- Digital display depending on model.
- 4 rollers mounting plate (except on CITOLINE 1700 M).
- Reverse polarity depending on model.
- Complete welding cycle (2T-4T-Spot-Intermittent).
- Ground cable with clamp.
- K 300 depending on model.



## Technical characteristics:

		CITOLINE 1700 M	CITOLINE 2000 M
Primary	Power supply	230 V - 1ph	230 V - 1ph
	Frequency	50 - 60 Hz	50 Hz
	Consumption at max. current	24 A	32 A
Secondary	No-load voltage	18 - 32 V	18 - 35 V
	Welding current	30 - 170 A	35 - 180 A
Duty cycle at 40 °C	at 100 %	60 A	85 A
	at 60 %	75 A	110 A
	at 35 %	140 A (18 %)	180 A (20 %)
Wires diameter	Steel	0.6-0.8-(1.0) mm	0.6-0.8-(1.0) mm
	Stainless steel	0.8-(1.0) mm	0.8-(1.0) mm
	Flux cored wire	1.0 mm	1.0 mm
	Aluminium	0.8-1.0 mm	0.8-1.0 mm
Protection index		IP 21	IP 23
Standards		EN 60974-1; -10	
Insulation classification		H	
Dimensional characteristics	Dimensions (W x H x L)	440 x 670 x 750 mm	500 x 870 x 950 mm
	Net weight	39 kg	52 kg
Wire feed		2 rollers	4 rollers
Digital display		No	Option W 000 264 869
Number of self position		1	
Reverse polarity		Yes	

## To order

Tailor-made	Power source		W 000 261 954*	W 000 261 963*
	Wire feeder	DV 4004 CTL 5 m	-	-
		DV 4004 CTL 10 m	-	-
	Package**		W 000 261 780	W 000 266 707
	Torch (air cooled)	WELDLINE	WMT 15 A	WMT 25 A
		length 3 m	W 000 010 600	W 000 010 602
		length 4 m	W 000 010 601	W 000 010 603
	Pressure regulator - flowmeter		Consult us	

\* Compact version with integrated wire feeder.

\*\* For French market.

# Compact and separate (S) versions.



## SINGLE-PHASE RANGE

CITOLINE 2500 M	CITOLINE 3000 M	CITOLINE 2500 MS	CITOLINE 3000 MS
230 V - 1ph	230 V - 1ph	230 V - 1ph	230 V - 1ph
50 Hz	50 Hz	50 Hz	50 Hz
54 A	67 A	54 A	67 A
20 - 53 V	20 - 55 V	20 - 53 V	20 - 55 V
32 - 250 A	28 - 300 A	32 - 250 A	28 - 300 A
140 A	165 A	140 A	165 A
180 A	215 A	180 A	215 A
250 A (30 %)	300 A	250 A (30 %)	300 A
0.8-1.0-(1.2) mm	0.8-1.2 mm	0.8-1.0-(1.2) mm	0.8-1.2 mm
0.8-1.0 mm	0.8-1.2 mm	0.8-1.0 mm	0.8-1.2 mm
1.0 mm	1.0-1.2 mm	1.0 mm	1.0-1.2 mm
0.8-1.0 mm	1.0-1.2 mm	0.8-1.0 mm	1.0-1.2 mm
IP 23			
EN 60974-1; -10			
H			
500 x 870 x 950 mm	500 x 870 x 950 mm	500 x 870 x 950 mm	
86 kg	86 kg	86 kg	
4 rollers	4 rollers	4 rollers	4 rollers
Option W 000 264 869	Option W 000 264 869	Yes (on wire feeder)	
1	1	1	4
Yes	Yes	No	No

W 000 261 964*	W 000 261 965*	W 000 261 972	W 000 261 973
-	-	W 000 262 182	
-	-	W 000 262 183	
-	-	-	-
WMT 25 A	WMT 36 A		
W 000 010 602	W 000 010 605		
W 000 010 603	W 000 010 606		

Consult us

# CITOLINE T: three-phase range.



## Basic equipment:

- Digital display depending on model.
- 4 rollers mounting plate.
- Reverse polarity depending on model.
- Complete welding cycle (2T-4T-Spot-Intermittent).
- Ground cable with clamp.
- K 300 depending on model.
- Water cooled version on CITOLINE 4500TS.



## Technical characteristics:

		CITOLINE 2000 T	CITOLINE 2500 T	CITOLINE 3000 T
Primary	Power supply	230 / 400 V - 3ph		
	Frequency	50 Hz		
	Consumption at max. current	19 - 11 A	27 - 16 A	33 - 19 A
Secondary	No-load voltage	18 - 35 V	18 - 40 V	18 - 45 V
	Welding current	27 - 200 A	35 - 250 A	35 - 300 A
Duty cycle at 40 °C	at 100 %	110 A	140 A	180 A
	at 60 %	140 A	170 A	230 A
	at 35 %	200 A (30 %)	250 A (30 %)	300 A
Wires diameter	Steel	0.6-1.0 mm	0.8-1.2 mm	0.8-1.2 mm
	Stainless steel	0.8-1.0 mm	0.8-1.0-(1.2) mm	0.8-1.2 mm
	Flux cored wire	1.0 mm	1.0 mm	1.0-1.2 mm
	Aluminium	0.8-1.0 mm	0.8-1.0 mm	1.0-1.2 mm
Protection index		IP 23		
Standards		EN 60974-1; -10		
Insulation classification		H		
Dimensional characteristics	Dimensions (W x H x L)	500 x 870 x 950 mm	500 x 870 x 950 mm	620 x 940 x 1.000 mm
	Net weight	71 kg	80 kg	96 kg
Wire feed		4 rollers		
Digital display		Option W 000 264 869	Option W 000 264 869	Yes
Number of self position		1	2	3
Reverse polarity		Yes		

## To order

Tailor-made installation		Power source only	W 000 261 966*	W 000 261 967*	W 000 261 970*
Air cooled version	Separate air cooled wire feeder	including 5 m harness	-	-	-
		including 10 m harness	-	-	-
	Torch (air cooled)	WELDLINE	WMT 25 A		WMT 36 A
		length 3 m	W 000 010 602		W 000 010 605
		length 4 m	W 000 010 603		W 000 010 606
Water cooled version	Separate water cooled wire feeder + 10 m harness		-	-	-
		Cooling unit	-	-	-
	Torch (water cooled)	WELDLINE	-	-	-
		length 3 m	-	-	-
		length 4 m	-	-	-
Package**			W 000 261 782	W 000 261 783	W 000 261 785
Pressure regulator - flowmeter			Consult us		

\* Compact version with integrated wire feeder.

\*\* For French market.

# Compact and separate (S) versions.



## THREE-PHASE RANGE

CITOLINE 3500 T	CITOLINE 3000 TS	CITOLINE 3500 TS	CITOLINE 4500 TS	CITOLINE 4500 TS W
230 / 400 V - 3ph				
50 Hz				
41.5 -24 A	34 - 19.5 A	41.5 -24 A	64 - 37 A	64 - 37 A
18 - 45 V	18 - 42 V	18 - 45 V	19 - 54 V	19 - 54 V
35 - 350 A	35 - 300 A	35 - 350 A	35 - 450 A	35 - 450 A
210 A	180 A	210 A	270 A	270 A
270 A	230 A	270 A	345 A	345 A
350 A	300 A	350 A	450 A	450 A
0.8-1.2 mm	0.8-1.2 mm	0.8-1.2 mm	0.8-1.6 mm	0.8-1.6 mm
0.8-1.2 mm	0.8-1.2 mm	0.8-1.2 mm	0.8-1.6 mm	0.8-1.6 mm
1.0-1.2 mm	1.0-1.2 mm	1.0-1.2 mm	1.0-1.6 mm	1.0-1.6 mm
1.0-1.2 mm	0.8-1.2 mm	1.0-1.2 mm	1.0-1.6 mm	1.0-1.6 mm
IP 23				
EN 60974-1; -10				
H				
620 x 940 x 1.000 mm	500 x 865 x 900 mm	500 x 865 x 900 mm	610 x 915 x 1.030 mm	
116 kg	81 kg	100 kg	135 kg	
4 rollers				
Yes	Yes (on wire feeder)			
3	1	3		
Yes	No			
W 000 261 971*	W 000 261 981	W 000 261 974	W 000 261 975	W 000 261 975
-	W 000 262 182			
-	W 000 262 183			
WMT 36 A				
W 000 010 605				
W 000 010 606				
-	-	-	-	W 000 262 184
-	-	-	-	W 000 262 188
-	-	-	-	WMT 500 W
-	-	-	-	W 000 010 608
-	-	-	-	W 000 010 609
W 000 261 787	W 000 261 784	W 000 266 715	W 000 261 788	W 000 266 708
Consult us				



# CITOLINE: friendly and easy to adjust.



## CITOLINE 1700 M



- 1** Transformer temperature monitoring indicator light
- 2** Step time potentiometer  
(if used for continuous welding, potentiometer in "timer off" position)
- 3** Torch connector, "Euro" type
- 4** Voltage switch  
(used to adjust the voltage)
- 5** Wire speed regulation potentiometer  
(carries out current calibration)
- 6** Primary power supply cable
- 7** Ground cable with its clamp

## CITOLINE M/T



- A** Digital Volt/Ampere display
  - Shows the parameters before and after welding.
  - Facilitates parameter setting.
- B** Welding cycle selector
  - 2T: pressing the trigger activates the arc, releasing it activates the end of the cycle.
  - 4T: pressing the trigger starts the cycle, the trigger can be released. Pressing it again stops the cycle.
  - Spot weld: supplies a welding current for a given time.
- 3** Torch connector
- C** Step time
  - Used to set the spot welding time.
- D** Priming speed
  - Sets the wire run-up speed which improves arc striking.
- E** Anti-sticking
  - Adjusts the length of the "burnt" wire at the end of welding. This function avoids the wire sticking to the workpiece.
- F** Wire speed potentiometer
  - Allow continuous adjustment of the wire feed speed.
- G** Wire test
  - Checks the wire feed mechanism is working properly.
- H** Test gas
  - Used to check the gasflow.
- I** Switch
  - Switch on and pre-adjustment of the welding voltage.
- J** Voltage selector switch
  - Allows the voltage to the terminals of the welding circuit to be finely adjusted.
- K** Grounding cable terminals:
  - On small inductance coil: dynamic and penetrating arc
  - On large inductance coil: soft arc, damp cable.

## CITOLINE (S)



## WIRE FEEDER DV 4004 CTL





# CITOLINE: wear parts-options



## Wire feeder parts





Specific to CITOLINE 1700 M

	Ø 0.6 mm	Ø 0.8 mm	Ø 1.0 mm	Ø 1.2 mm	Ø 1.4 mm	Ø 1.6 mm
Rollers for steel and stainless steel wires	W 000 232 110	W 000 232 112	-	-	-	-

Other models of CITOLINE

Entry wire guide	W 000 233 472					
Rollers for steel and stainless steel wires	W 000 050 096	W 000 050 097	W 000 050 098	W 000 050 099	-	W 000 218 767
Rollers for flux cored wires	-	-	W 000 264 870		W 000 265 883	
Rollers for aluminium wires	-	W 000 050 100	W 000 050 101	W 000 050 102	-	-

## WELDLINE torches

Air cooled torches					
Torche name		Duty cycle at 60 %	Cat. no.		Max wire Ø
WMT 15 A	3 m	180 A	W 000 010 600		1.0 mm
	4 m		W 000 010 601		
WMT 25 A	3 m	230 A	W 000 010 602		1.2 mm
	4 m		W 000 010 603		
	5 m		W 000 010 604		
WMT 36 A	3 m	340 A	W 000 010 605		1.6 mm
	4 m		W 000 010 606		
	5 m		W 000 010 607		
Water cooled torches					
WMT 500 W	3 m	500 A	W 000 010 608		1.6 mm
	4 m		W 000 010 609		
	5 m		W 000 010 610		

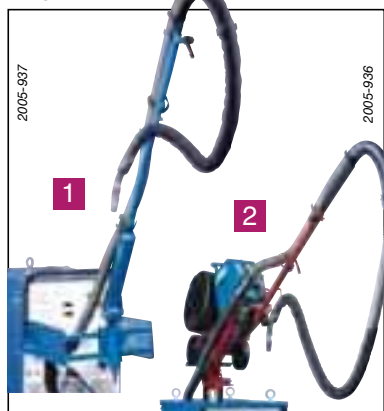
## Torch arm rest

2 models in the range

**1** for CITOLINE compact version:  
W 000 261 845

**2** for CITOLINE separate version:  
W 000 261 846

Arm adjustable up to 2.5 meters length.



## CHAMELEON F, CHAMELEON 3V & CHAMELEON 3V+ self darkening helmets.

CHAMELEON F and 3V helmets are self darkening masks equipped with a fixed liquid crystal cell for the F type (DIN 3/11), and a variable one for the 3V type (DIN 4/9-13). Very light, this high technology helmets are sold with an adjustable headgear.

**CHAMELEON 3F**  
Type fixed cell  
DIN 3/11

**CHAMELEON 3V**  
Type variable cell  
DIN 4/9-13  
specially designed  
for MMA, MIG/MAG

**CHAMELEON 3V+**  
Type variable cell  
DIN 4/9-13  
covering all processes  
especially TIG



W 000 261 351

W 000 261 352

W 000 261 353



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[www.airliquide.com](http://www.airliquide.com)

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