

# CIL

## In-line Ejectors

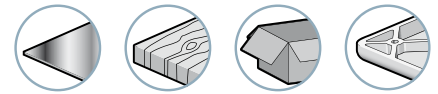


Due to their lightweight and compact design (only 7 to 13 g depending on the version), the "just plug it in" CIL ejectors can be easily integrated into the compressed air network and very close to the suction cups, even in the most inaccessible parts of the machine.

### Use

COVAL advises using CIL in-line ejectors for handling electronic components and other lightweight objects, feed systems, "Pick and Place" applications and separating systems for machining sheet metal or plastics.

### Industry-specific applications



### Advantages

- Simple, efficient connection  
Push fittings, M12 male or M14 male thread.
- Improved reliability due to no moving mechanical parts.
- Silent operation  
Nozzle-mixer combination resulting from new COVAL fluidics.
- Optimized performance

CILs are available in 3 nozzle diameters (0.5, 0.7 and 0.9 mm), max. vacuum 85%.  
Size 1 (M12): 0.5 and 0.7 nozzles  
Size 2 (M14): 0.9 nozzle

### Flexible Installation

#### Push fitting

Removable axial mounting directly on the pipe using push fittings.



Available in two sizes

- For calibrated pipe 2.7 x 4 mm (size 1)
- For calibrated pipe 4 x 6 mm (size 2)

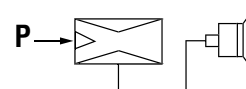
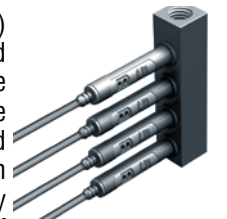
#### Integrated fitting

M12 (size 1) or M14 (size 2) incorporated male thread allows the CIL in-line module to be fitted easily and securely.



#### Manifold mounting

M12 (size 1) or M14 (size 2) incorporated male thread allows several CIL in-line vacuum modules to be integrated into a machined block to feed several suction cups simply and economically from a single source of compressed air.



Delivered with a zinc-plated steel fastening nut.

6

CIL

### Characteristics

References	Ø nozzle	Air consumed (Nl/min)	Maximum vacuum (%)	Air drawn in (Nl/min)	At air pressure (bar)
CIL 190X05R	0.5	9.5	85	7	5
CIL 190X07R	0.7	18.5	85	13.7	5
CIL 290X09R	0.9	30.5	85	22.6	5

Note: All dimensions are in mm

### Evacuation Time in Seconds per Liter

% vacuum	10 %	20 %	30 %	40 %	50 %	60 %	70 %	80 %	85 %
CIL 190X05R	0.92	1.96	3.18	4.63	6.38	8.79	12.17	18.96	27.39
CIL 190X07R	0.46	0.98	1.58	2.28	3.13	4.27	5.8	8.55	11.01
CIL 290X09R	0.31	0.65	1.05	1.52	2.09	2.85	3.87	5.7	7.34

### Specifications

Supply	non-lubricated filtered air, 5 microns (ISO standard 8573-1:2010 [4:5:4])
Optimum operating pressure	5 bar
Weight	7 to 13 g, depending on the model
Materials	PA6.6 15 % FV – 2017A
Operating temperature	0 to 60°C

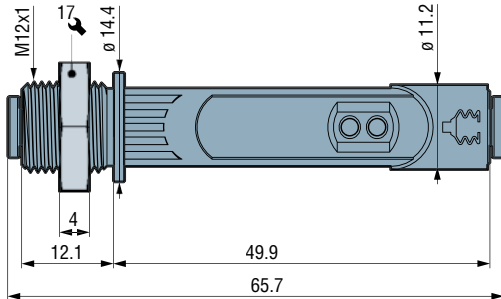


Please specify the part n°. e.g. CIL190X05R  
See Characteristics table above

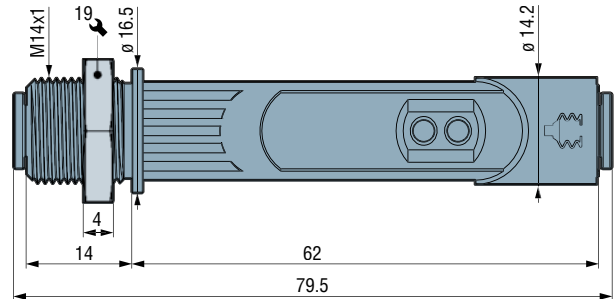


#### Dimensions

##### Size 1



##### Size 2



Note: All dimensions are in mm

#### Advantages

- Adaptable to all industries
- In-line connection
- Installation very close to the suction cups
- No clogging
- Very flexible installation
- Silent operation

#### Data Curves

