

# PNEUMATIC LOCATING PIN UNITS

Pneumatic retractable locating pin unit, typically used in welding applications to locate metal sheets in a definite position.

Available version with hand lever and toggle-joint mechanism

- Metal rod scraper on single shaft only
- Antirotation system
- Electronic sensor with M12 swivel connector or pneumatic sensor



**UNICLAMP**  
next generation

## MILLIONS OF CYCLES

3 Millions of operations granted with no maintenance required



## QR CODE

Helps identify products quickly and easily



## LIGHTWEIGHT

Housing in aluminium alloy  
The lightest among market equivalent devices



## REDUCED DIMENSIONS



## DOUBLE GUIDE

Precision





## COMPACT SIZE 32

Pneumatic pin unit with very compact overall dimensions

- Pneumatic with side or rear sensor  $\varnothing 32$  mm



## SINGLE AND DOUBLE ROD

Standard range of pin units offering many version combinations with single or double rod and equipped with hand lever for manual operations

- Pneumatic  $\varnothing 40-50-63$  mm
- Pneumatic with hand lever  $\varnothing 50$  mm
- Manual 50 mm
- Wide range of shaft-ends



## IRREVERSIBLE

Pin units equipped with toggle-joint mechanism to maintain the position even with lack of air

- Single and double rod  $\varnothing 40-50$  mm
- With hand lever  $\varnothing 40-50$  mm



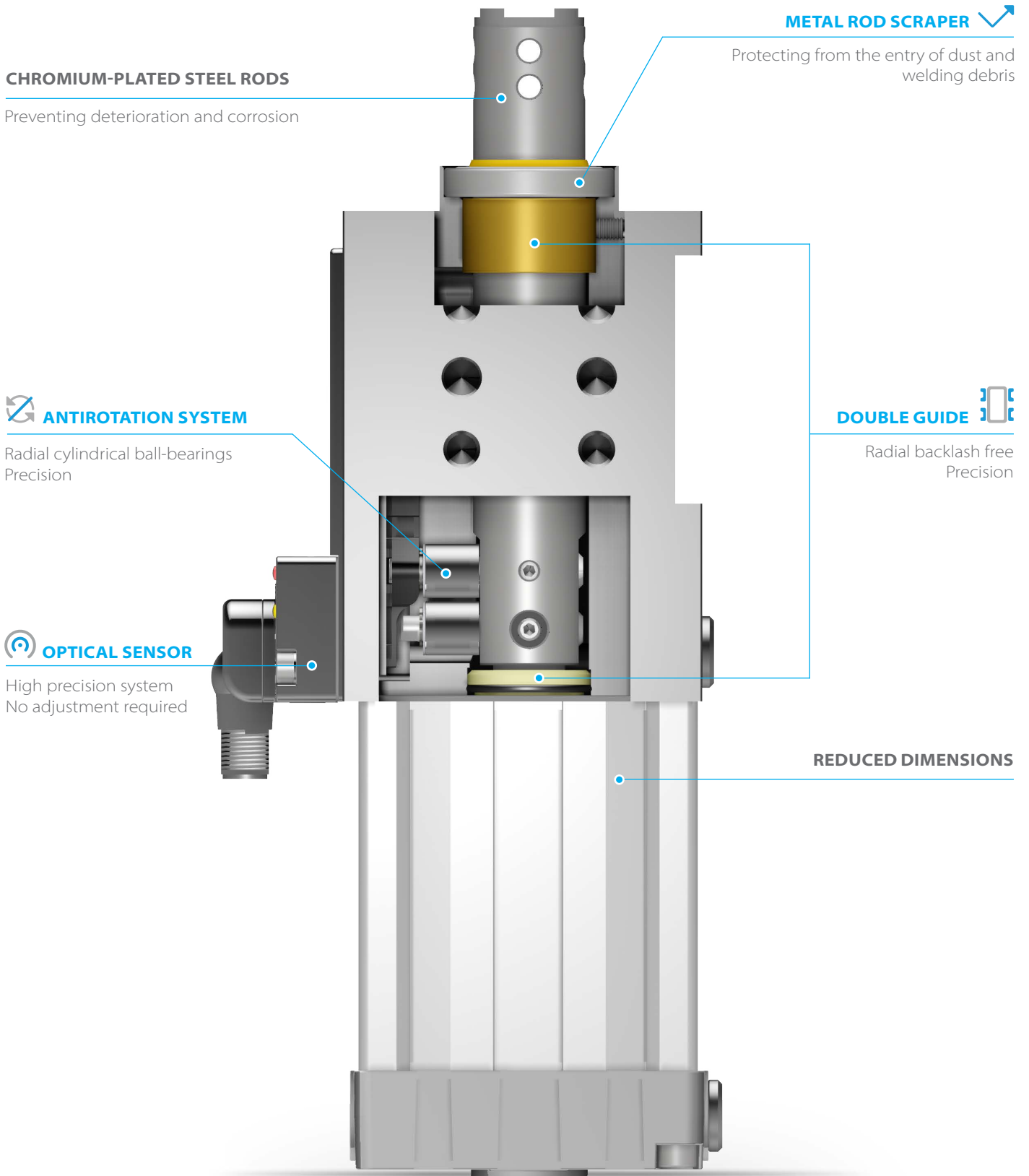
## CNOMO STANDARD

Pin unit construction meeting CNOMO Standard

- Single rod  $\varnothing 50-63$  mm
- With hand lever  $\varnothing 50$  mm

# LOCATING PIN UNITS FEATURES

## SINGLE ROD VERSION



## DOUBLE ROD VERSION

**180° ORIENTABLE RODS**

Possibility to self-orientate the rods 180°  
Stock reduction

**METAL ROD SCRAPER**

Protecting from the entry of dust and  
welding debris

**OPTICAL SENSOR**

High precision system  
No adjustment required

**CHROMIUM-PLATED STEEL RODS**

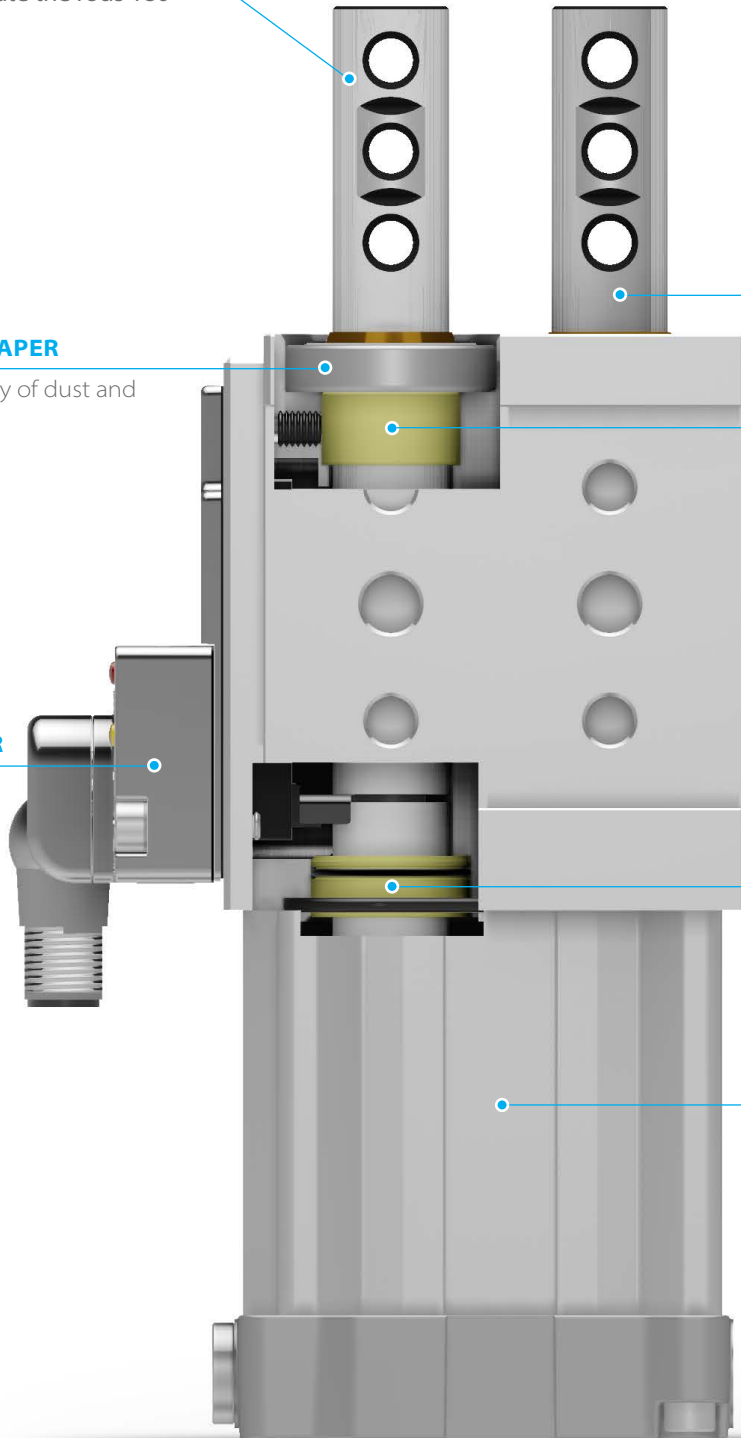
Preventing deterioration  
and corrosion

**DOUBLE GUIDE**

Radial backlash free  
Precision

**REDUCED DIMENSIONS**

Compact end covers



# LOCATING PIN UNITS FEATURES

## IRREVERSIBLE VERSION

### **ORIENTABLE ROD**

Possibility to self-orientate the rods 180°  
Stock reduction

### **METAL ROD SCRAPER**

Protecting from the entry of dust  
and welding debris

### **OPTICAL SENSOR**

High precision system  
No adjustment required

### **CHROMIUM-PLATED STEEL RODS**

Preventing deterioration and corrosion

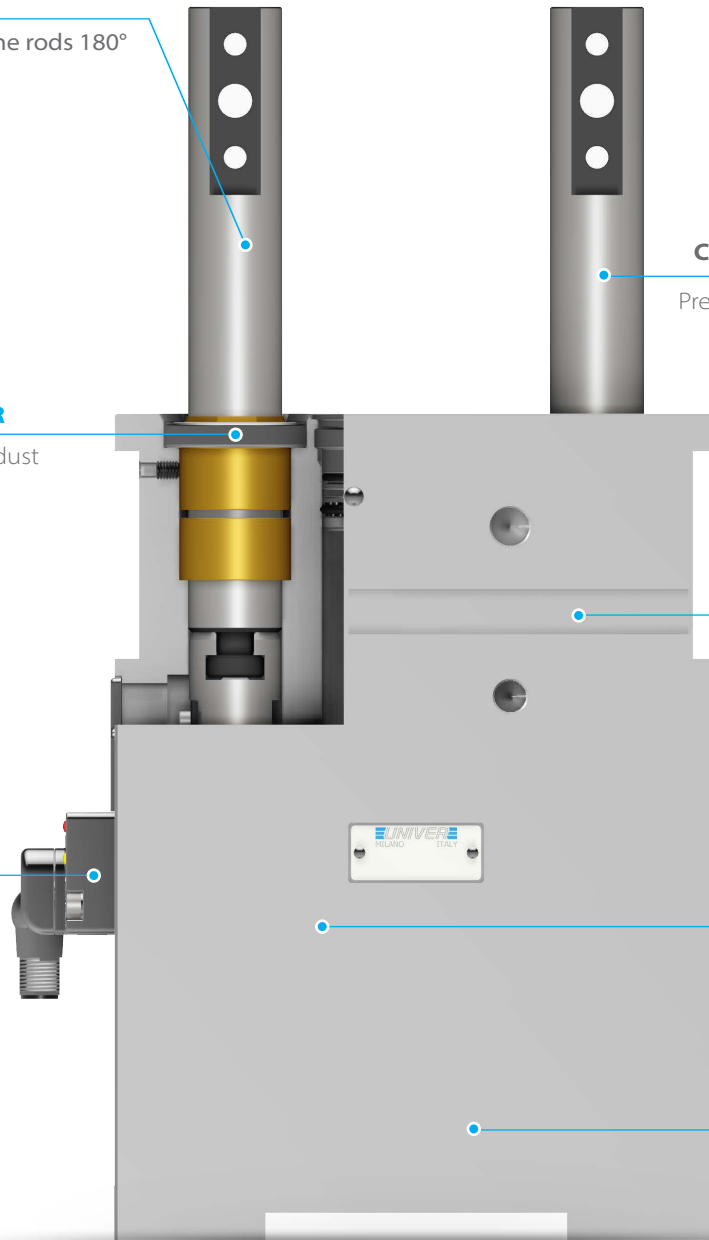
### **DOUBLE GUIDE**

Radial backlash free  
Precision

### **COMPACT DIMENSIONS**

### **TOGGLE-JOINT**

Irreversible rod extend position  
High trust force





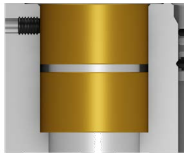
### METAL ROD SCRAPER

To prevent dust and welding debris entering the unit body, each piston rod is equipped with a metal rod scraper



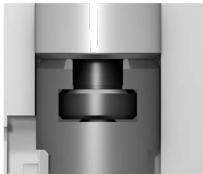
### ANTIROTATION SYSTEM

Radial cylindrical ball-bearings enable the shaft not to rotate axially and guarantee positioning precision



### DOUBLE GUIDE

Internal piston rod double guide assures zero radial backlash and positioning precision



### ORIENTABLE RODS

The piston rods on double rod models are 180° orientable by the user to offer installation flexibility and stock reduction



### IRREVERSIBLE

Models equipped with the UNIVER original toggle-joint mechanism guarantee irreversibility of the extended piston rod and high thrust force

Irreversible even with lack of air and without external stops



### OPTICAL SENSOR

Fully metal body

One single sensor for the whole range of products

IP67 protection

M12 swivel connector (0-90°)

High precision

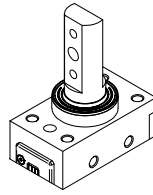
No set up

Two-parts design: electronic part outside the unit (available as spare part), optical part inside the unit (no touch point)

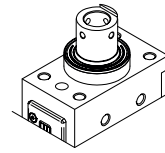
Insensitive to high magnetic fields, typical of new and modern welding systems like aluminium welding

Industry-recognized, tested and proven sensor

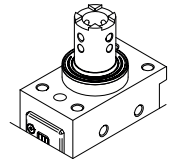
# LOCATING PIN UNITS RODS



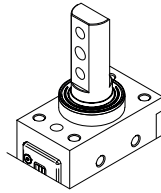
Rod for off-set pins



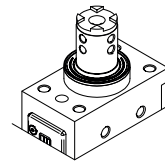
Profiled end



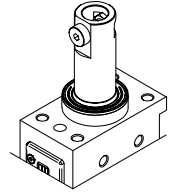
Cross-profiled  $\varnothing 16$



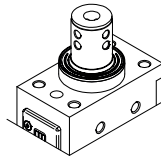
Oversized dowel holes



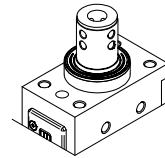
Cross-profiled  $\varnothing 10$



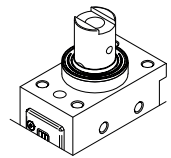
NAAMS COMPATIBLE  $\varnothing 16$



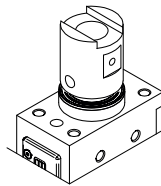
Flat  $\varnothing 10$



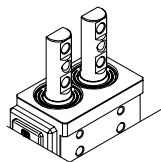
FLAT  $\varnothing 12$



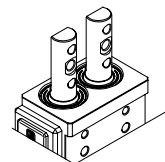
CNOMO  $\varnothing 12$



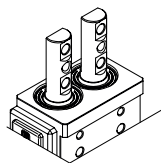
CNOMO  $\varnothing 20$



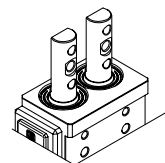
ROD FOR OFFSET PINS  
2 SCREWS - 1 DOWEL



ROD FOR OFFSET PINS  
1 SCREW - 2 DOWELS



ROD FOR OFFSET PINS  
(ROD PLANE MATCHING  
BODY MIDDLE AXIS)  
2 SCREWS - 1 DOWEL



ROD FOR OFFSET PINS  
(ROD PLANE MATCHING  
BODY MIDDLE AXIS)  
1 SCREW - 2 DOWELS

# COMPLEMENTARY PRODUCTS



## **PNEUMATIC** SENSOR

- Compact design
- Fully metal body
- Easy to be replaced
- One-piece construction



## **HAND** LEVER

- Ergonomic design
- Welding debris resistant



# ULM 50

Pneumatic retractable locating pin unit, single rod, Ø50 mm with hand lever

Pneumatic retractable pin unit, single rod, typically used in welding applications to locate metal sheets in a definite position.

- Metal rod scraper
- Antirotation system
- Double guide to avoid backlash
- Compact dimensions
- Electronic or pneumatic sensor
- Many rod end styles available
- Ergonomic hand lever



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## CHARACTERISTICS

Operating temperature	5° ÷ 45° C
Min./Max. operating pressure	0,4 / 0,6 MPa
Bore Ø	50 mm
Max Pull force (0,5 MPa)	560 N
Max Push force (0,5 MPa)	615 N
Max. Torque (6 Nm)	± 0,06 mm
Max. Deflection (7,5 Nm)	± 0,03 mm
Weight	3,4 Kg
Pneumatic supply ports	G 1/4 on both sides
Sensor	electronic (optical)
Supply voltage	10 ÷ 30 Vdc
IP code	IP 65

## CODIFICATION KEY

UL | M | 50 | 040 | C | X | K | 0 | |

1 2 3 4 5 6 7 8 9



OPTICAL SENSOR



LIGHTWEIGHT



COMPACT



METAL SCRAPER



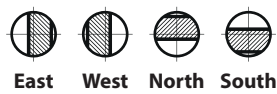
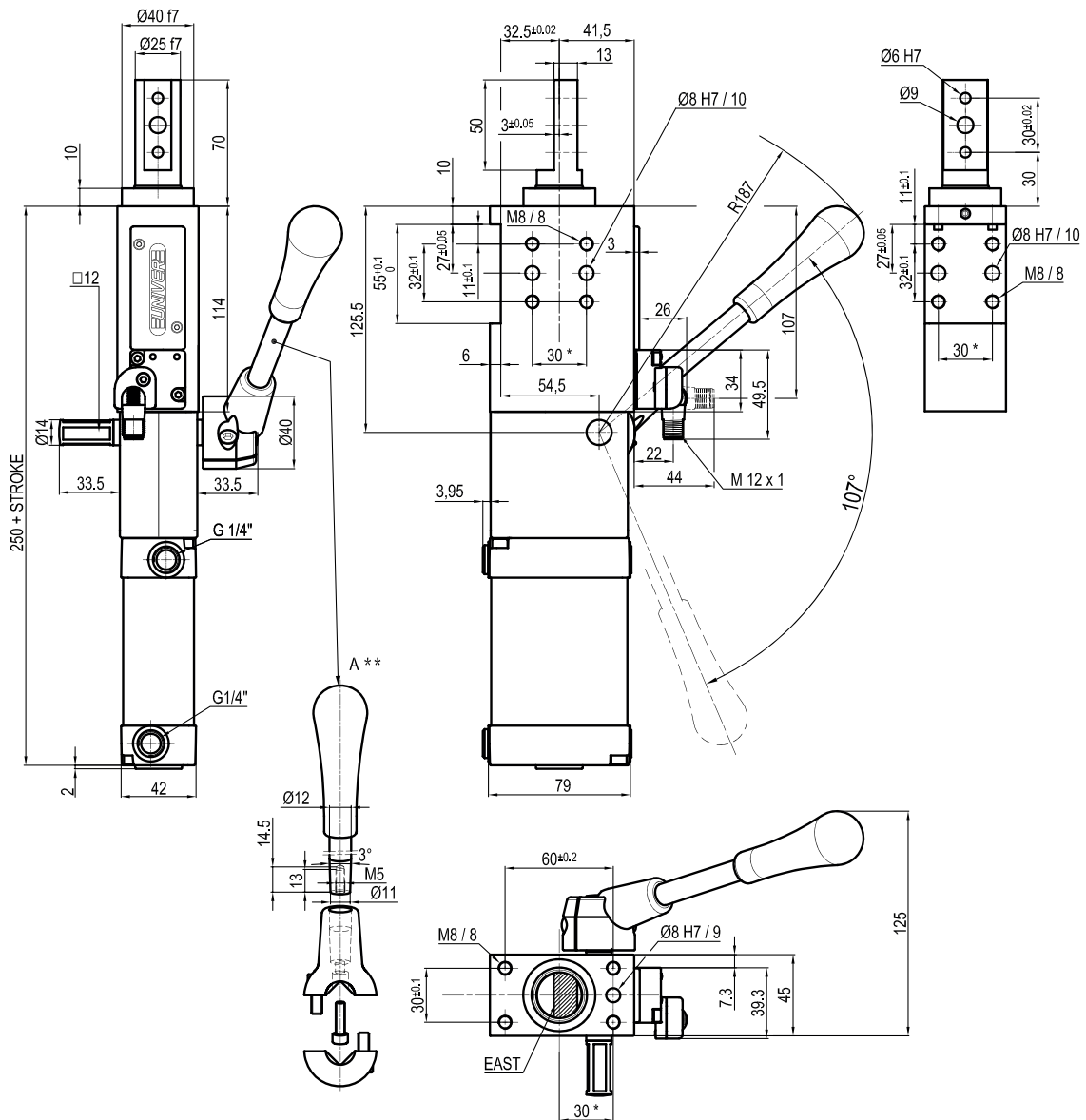
DOUBLE GUIDE



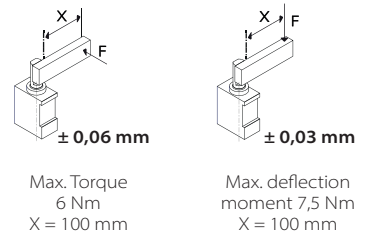
ANTI ROTATION

<p><b>1</b> SERIES UL = UNICLAMP locating pin unit</p> <p><b>2</b> VERSION M = Pneumatic, single rod with hand lever</p> <p><b>3</b> SIZE 50 = Ø50 mm</p> <p><b>4</b> STROKE 015 = 15 mm 025 = 25 mm 040 = 40 mm 050 = 50 mm 060 = 60 mm</p> <p><b>5</b> ROD END STYLE A = Rod for offset pins B = Rod with profiled end C = Rod with cross-profiled end inner Ø 16 mm D = Rod for offset pins with oversized dowel holes E = Rod with cross profiled end inner Ø 10 mm F = Compatible with NAAMS, inner Ø 16 H = Rod with flat end, inner Ø10 mm I = Rod with flat end, inner Ø12 mm L* = Rod with inner Ø12 mm M* = Rod with inner Ø 20 mm *compatible with CNOMO standard</p>	<p><b>6</b> ROD ORIENTATION X = Symmetrical</p> <p>E* = East </p> <p>O* = West </p> <p>N* = North </p> <p>S* = South </p> <p>*only with "A" and "D" rod style</p> <p><b>7</b> SENSOR N = No sensor (with protection plate) K = Electronic sensor PNP, M12 (DF-K) D = Pneumatic sensor (DF-UPNW) J = Electronic sensor NPN, optical (DF-J) Y = Electronic sensor PNP, M12 (DF-Y) white LED</p> <p><b>8</b> PRODUCT REVISION Assigned by UNIVER</p> <p><b>9</b> ATEX X = ATEX option See ATEX Catalogue for types and versions</p>
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**A** Rod for offset pins



\*TOLERANCE BETWEEN DOWELS  $\pm 0,02$  BETWEEN SCREW HOLES  $\pm 0,1$   
 \*\*DIMENSIONS TO BE RESPECTED IN CASE OTHER MANUAL LEVERS ARE USED



**Sensors**



Electronic (optical)

- DF-K PNP M12
- DF-J NPN M12
- DF-Y PNP M12 White LED



Pneumatic

DF-UPNW

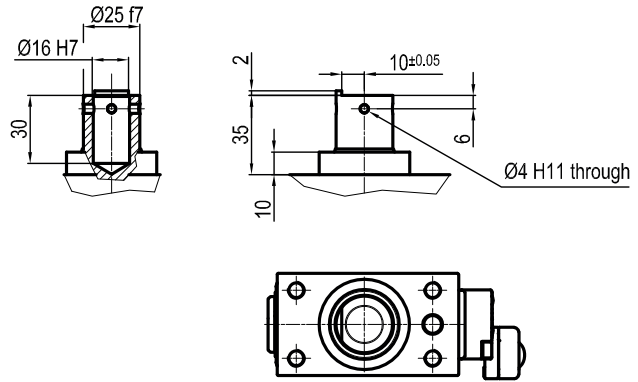
**Accessories**



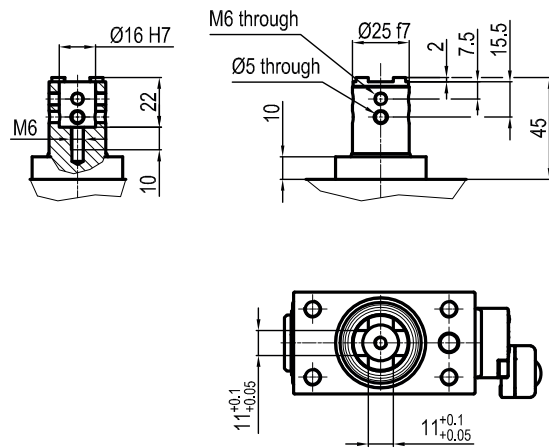
Handlever

UBF255063

**B** Rod with profiled end



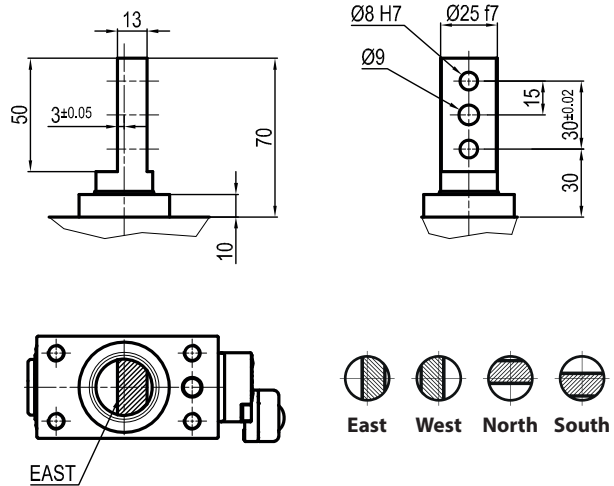
**C** Rod with cross-profiled end  
Inner Ø16 mm



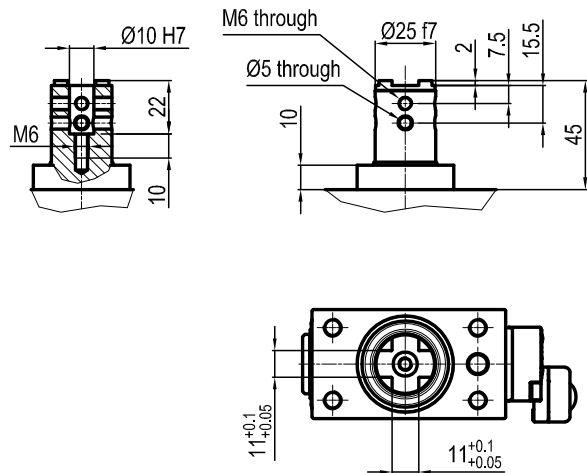
**D** Rod for offset pins  
Oversized dowel holes

Max. Torque  
6 Nm

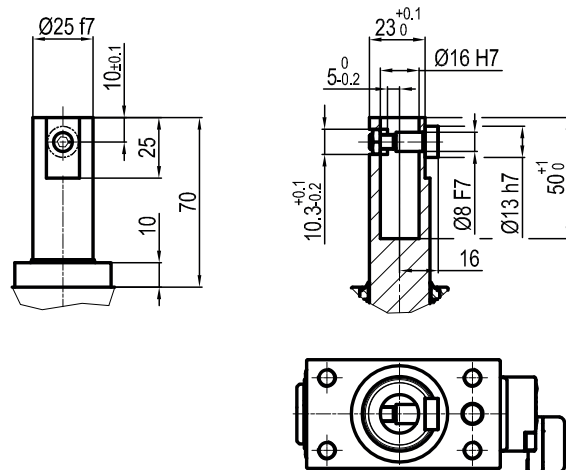
Max. deflection  
moment 7,5 Nm



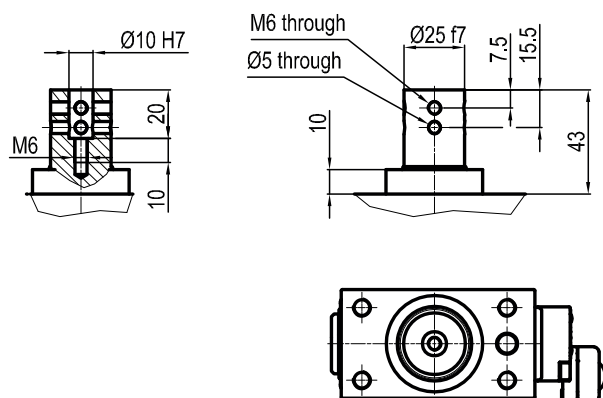
**E** Rod with cross-profiled end  
Inner Ø10 mm



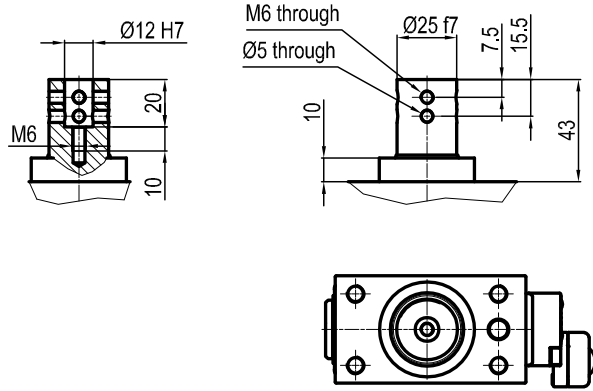
**F** Compatible with NAAMS  
Inner Ø16 mm



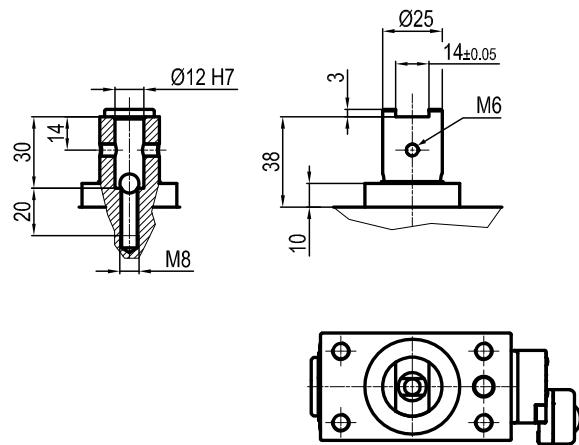
**H** Rod with flat end  
Inner Ø10 mm



**I** Rod with flat end  
Inner Ø12 mm



**L** Rod compatible with CNOMO standard  
Inner Ø12 mm



**M** Rod compatible with CNOMO standard  
Inner Ø20 mm

