

# 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



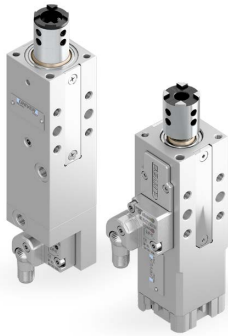
## REDUCED DIMENSIONS



## DOUBLE GUIDE

Precision





## COMPACT SIZE 32

Pneumatic pin unit with very compact overall dimensions

- Pneumatic with side or rear sensor Ø32 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 Ø40-50-63 mm
- Pneumatic with hand lever Ø50 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 Ø40-50 mm
- With hand lever Ø40-50 mm



## CNOMO STANDARD

Pin unit construction meeting CNOMO Standard

- Single rod Ø50-63 mm
- With hand lever Ø50 mm

# LOCATING PIN UNITS FEATURES

## SINGLE ROD VERSION

### CHROMIUM-PLATED STEEL RODS

Preventing deterioration and corrosion

### METAL ROD SCRAPER

Protecting from the entry of dust and welding debris

### ANTIROTATION SYSTEM

Radial cylindrical ball-bearings  
Precision

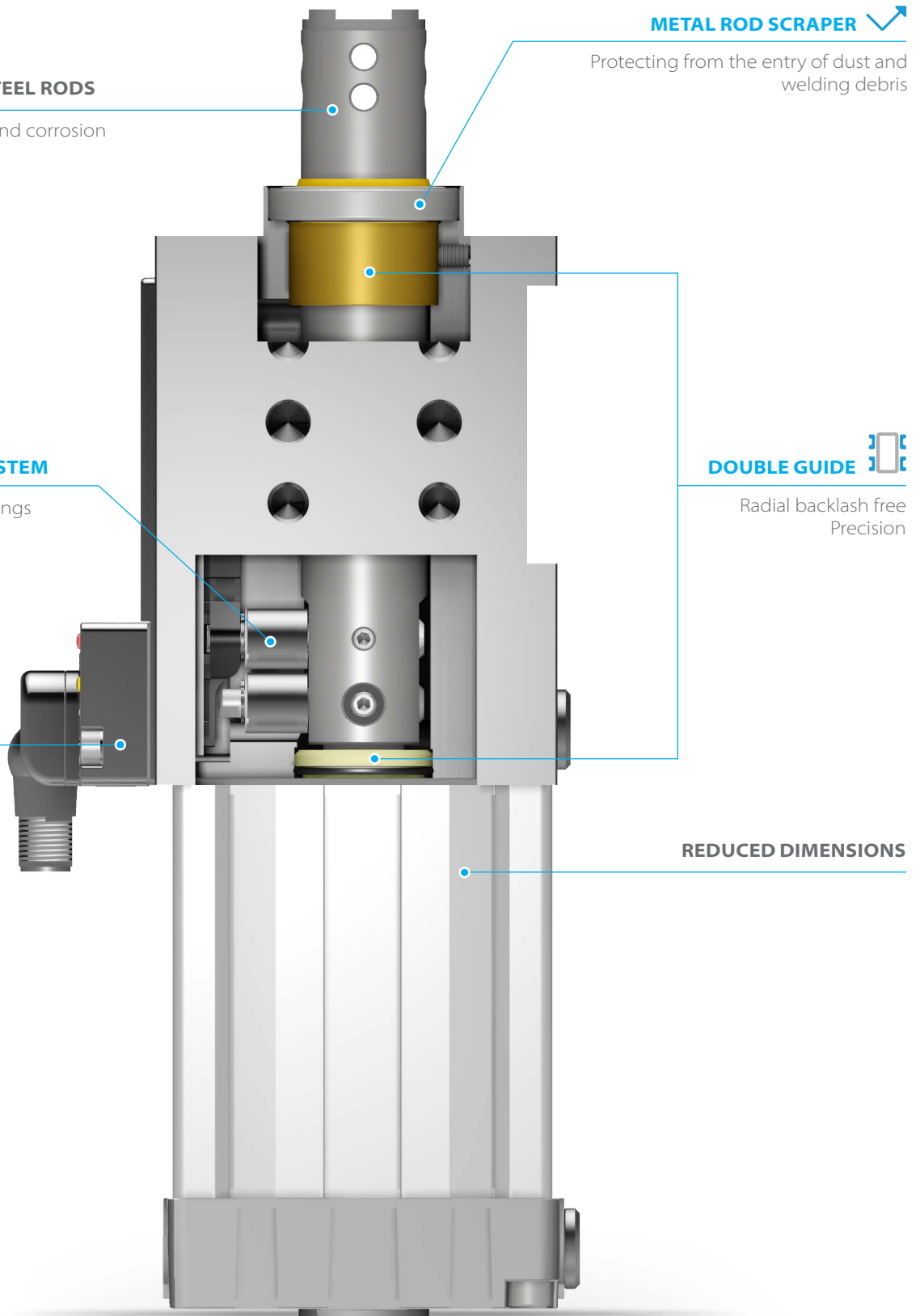
### DOUBLE GUIDE

Radial backlash free  
Precision

### OPTICAL SENSOR

High precision system  
No adjustment required

### REDUCED DIMENSIONS



## 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**

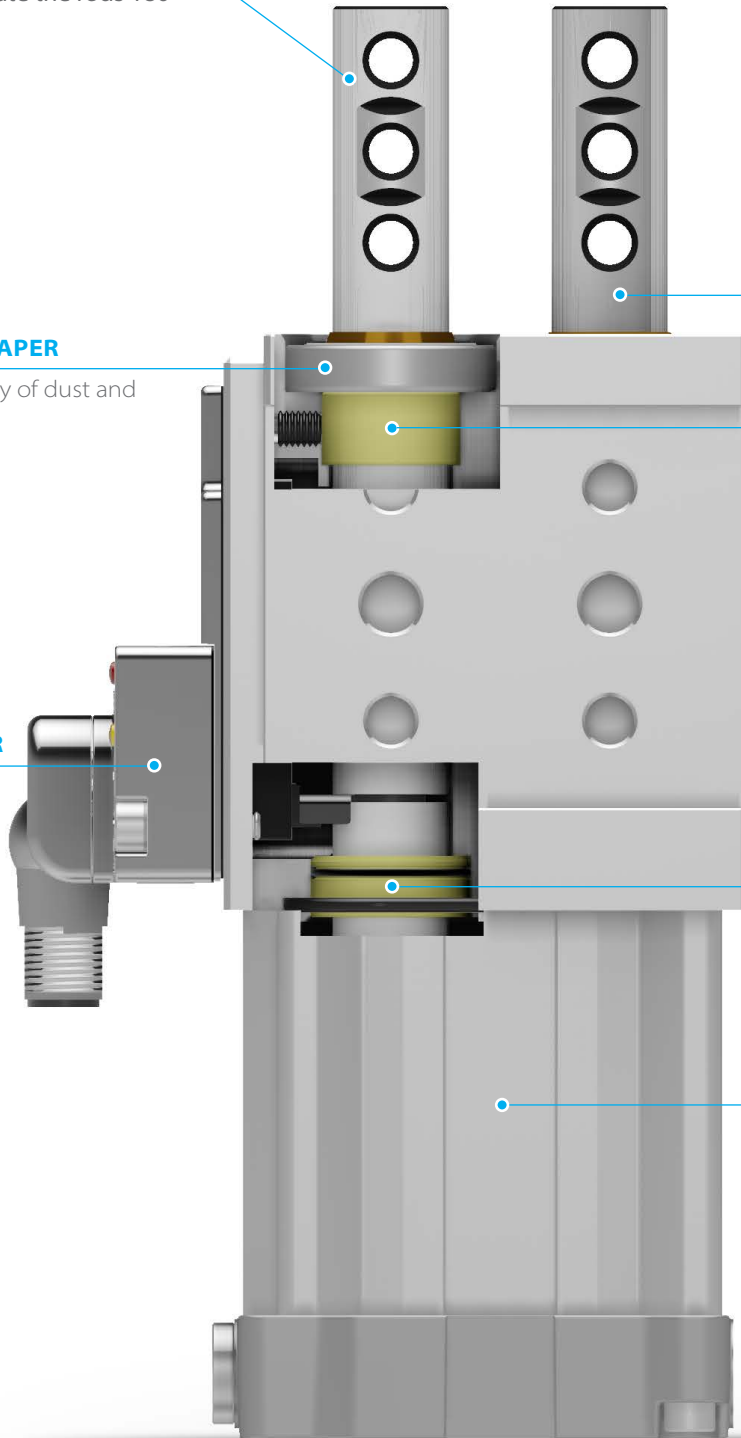
Preventing deterioration  
and corrosion

**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

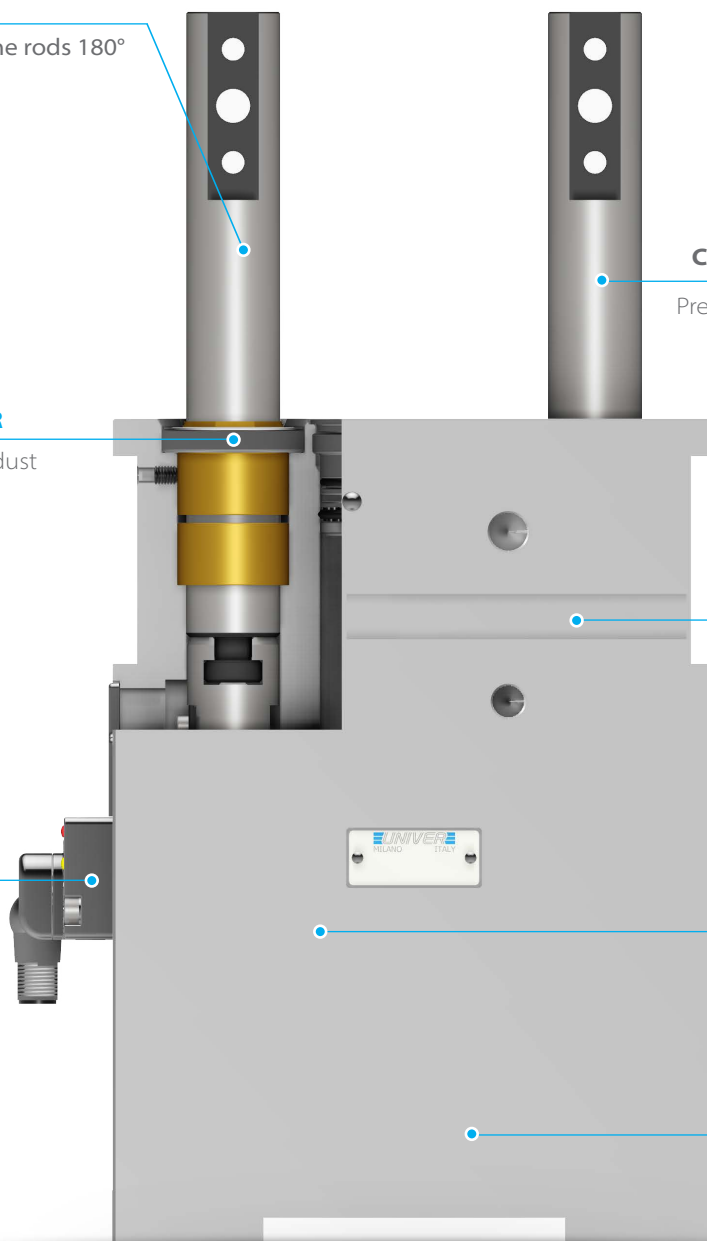
### **DOUBLE GUIDE**

Radial backlash free  
Precision

### **COMPACT DIMENSIONS**

### **TOGGLE-JOINT**

Irreversible rod extend position  
High trust force





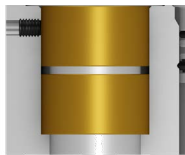
✓ **METAL ROD SCRAPER**

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



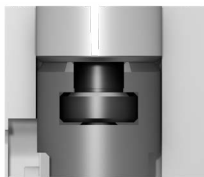
⊘ **ANTIROTATION SYSTEM**

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



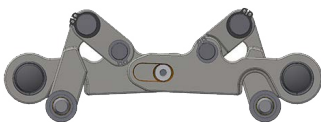
⏏ **DOUBLE GUIDE**

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



180° **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

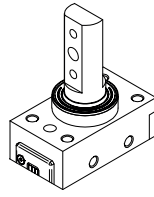
No set up

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

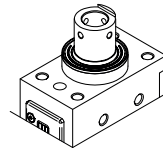
Insensitive to high magnetic fields, typical of new and modern welding systems like aluminium welding

Industry-recognized, tested and proven sensor

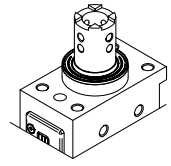
# LOCATING PIN UNITS RODS



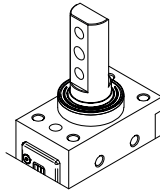
Rod for off-set pins



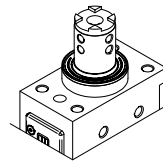
Profiled end



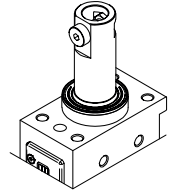
Cross-profiled Ø16



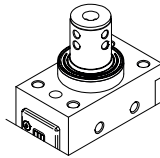
Oversized dowel holes



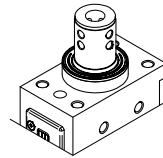
Cross-profiled Ø10



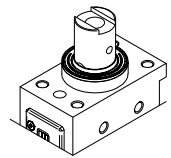
NAAMS COMPATIBLE Ø16



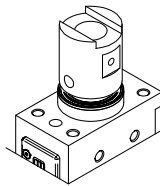
Flat Ø10



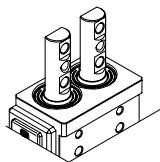
FLAT Ø12



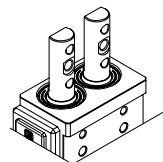
CNOMO Ø12



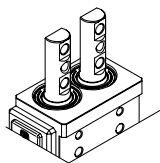
CNOMO Ø20



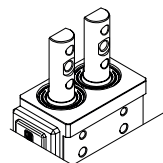
ROD FOR OFFSET PINS  
2 SCREWS - 1 DOWEL



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



# ULZ 40

Irreversible pneumatic retractable locating pin unit, single rod, Ø40 mm

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

- Toggle-joint system to hold the position even in case of air loss
- Metal rod scraper
- Antirotation system
- Optical sensor
- Many rod end styles available
- Version with hand lever available (ULY)



3

## CHARACTERISTICS

Operating temperature	5° ÷ 45° C
Min./Max. operating pressure	0,4 / 0,6 MPa
Bore Ø	40 mm
Min. Pull force (0,5 MPa)	200 N
Max Push force (0,5 MPa)**	3100 N
Max. Torque (6 Nm)	± 0,06 mm
Max. Deflection (7,5 Nm)	± 0,03 mm
Weight	5,7 Kg
Pneumatic supply ports	G 1/8
Sensor	electronic (optical)
Supply voltage	10 ÷ 30 Vdc
IP code	IP 65

\*\*Max. push force at end stroke position

## CODIFICATION KEY

UL | Z | 40 | 040 | A | E | K | 0 | | |

1 2 3 4 5 6 7 8 9



IRREVERSIBLE



OPTICAL SENSOR



METAL SCRAPER



ANTI ROTATION

1

**SERIES**  
UL = UNICLAMP locating pin unit

2

**VERSION**  
Z = Pneumatic, with toggle-joint mechanism, single rod

3

**SIZE**  
40 = Ø40 mm

4

**STROKE**  
040 = 40 mm

5

**ROD END STYLE**  
A = Rod for offset pins  
B = Rod with profiled end  
C = Rod with cross-profiled end inner Ø16 mm  
D = Rod for offset pins with oversized dowel holes

6

**ROD ORIENTATION**  
X = Symmetrical

E\* = East

O\* = West

N\* = North

S\* = South

\*only with "A" and "D" rod style

7

**SENSOR**  
N = No sensor (with protection plate)  
K = Electronic sensor PNP, M12 (DF-K)  
J = Electronic sensor NPN, optical (DF-J)  
Y = Electronic sensor PNP, M12 (DF-Y) white LED

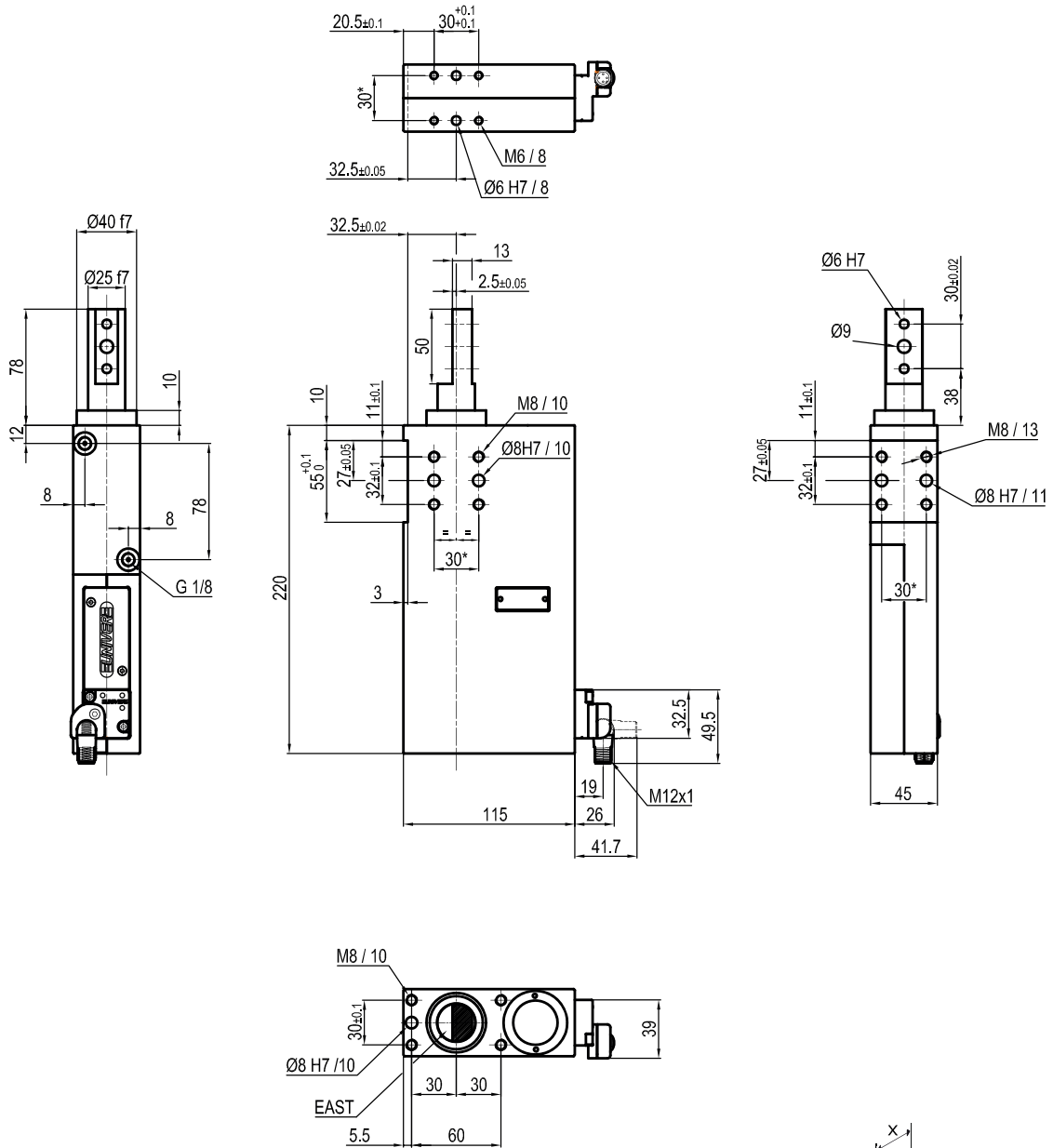
8

**PRODUCT REVISION**  
Assigned by UNIVER

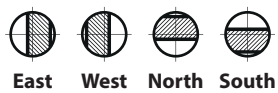
9

**ATEX**  
X = ATEX option  
See ATEX Catalogue for types and versions

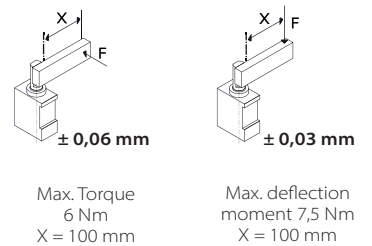
**A** Rod for offset pins



3



\*TOLERANCE BETWEEN DOWELS ± 0,02 BETWEEN SCREW HOLES ± 0,1



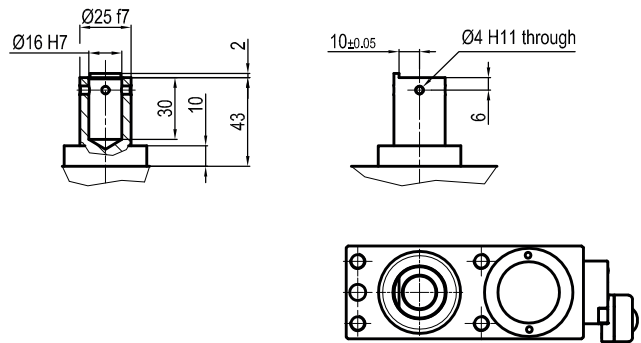
Sensors



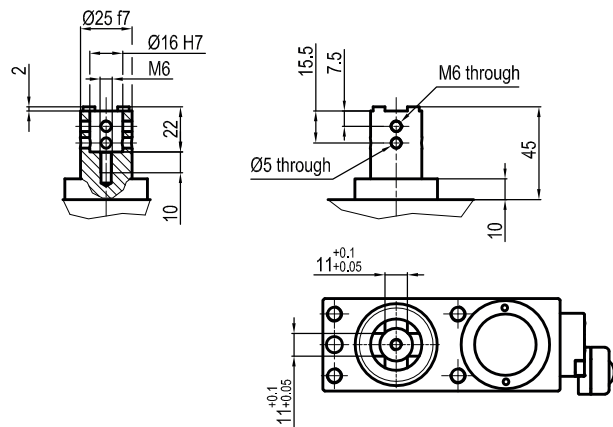
Electronic (optical)

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

**B** Rod with profiled end



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



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

Max. deflection moment 7,5 Nm

