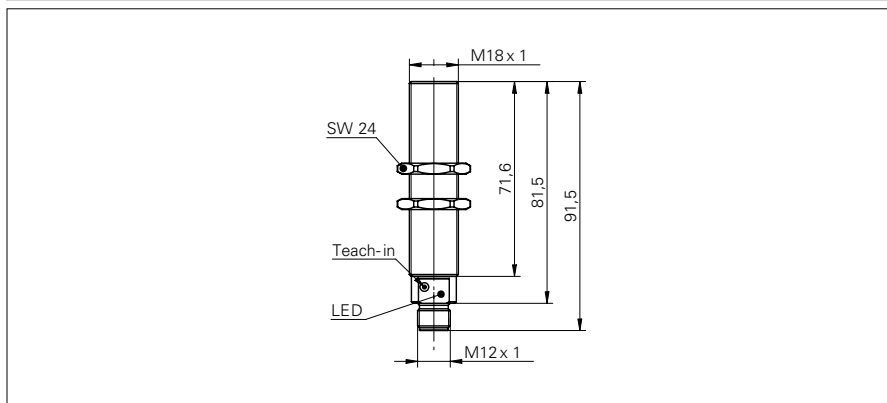


## Ultrasonic distance measuring sensors

## UNAR 18 (Sde = 1000 mm)

Ultrasonic sensors

### sample drawing



### general data

|                                |                                |
|--------------------------------|--------------------------------|
| special type                   | chemically resistant           |
| scanning range sd              | 100 ... 1000 mm                |
| scanning range close limit Sdc | 100 ... 1000 mm                |
| scanning range far limit Sde   | 100 ... 1000 mm                |
| repeat accuracy                | < 0,5 mm                       |
| resolution                     | < 0,3 mm                       |
| response time ton              | < 80 ms                        |
| release time toff              | < 80 ms                        |
| temperature drift              | < 2 % of distance to target So |
| sonic frequency                | 240 kHz                        |
| adjustment                     | Teach-in                       |
| alignment aid                  | target indication flashing     |
| light indicator                | yellow LED / red LED           |

### electrical data

|                             |               |
|-----------------------------|---------------|
| voltage supply range +Vs    | 15 ... 30 VDC |
| output current              | < 20 mA       |
| residual ripple             | < 10 % Vs     |
| short circuit protection    | yes           |
| reverse polarity protection | yes           |

### voltage output

|                                    |                         |
|------------------------------------|-------------------------|
| current consumption max. (no load) | 35 mA                   |
| output signal                      | 0 ... 10 V / 10 ... 0 V |

### current output

|                                    |                           |
|------------------------------------|---------------------------|
| current consumption max. (no load) | 55 mA                     |
| output signal                      | 4 ... 20 mA / 20 ... 4 mA |
| load resistance +Vs max.           | < 1100 Ohm                |
| load resistance +Vs min.           | < 400 Ohm                 |

### sample picture





## Ultrasonic distance measuring sensors

## UNAR 18 (Sde = 1000 mm)

Ultrasonic sensors

| mechanical data                          |                              |
|--|------------------------------|
| type                                     | cylindrical threaded         |
| housing material                         | stainless steel 1.4435 (V4A) |
| coating active face                      | Parylene                     |
| material O-ring                          | FFKM                         |
| front of sensor durable against pressure | 6 bar, 20'000 cycle          |
| width / diameter                         | 18 mm                        |
| height / length                          | 91,5 mm                      |
| connection types                         | connector M12                |

| ambient conditions    |              |
|-----------------------|--------------|
| operating temperature | 0 ... +60 °C |
| protection class      | IP 67        |

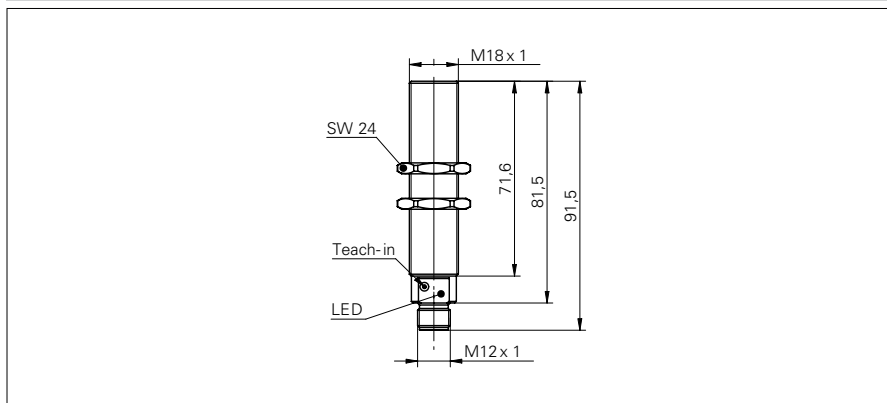
| order reference   | output circuit |
|-------------------|----------------|
| UNAR 18I6903/S14G | current output |
| UNAR 18U6903/S14G | voltage output |

## Ultrasonic distance measuring sensors

## UNAR 18 (Sde = 400 mm)

Ultrasonic sensors

### sample drawing



### general data

|                                |                                |
|--------------------------------|--------------------------------|
| special type                   | chemically resistant           |
| scanning range sd              | 60 ... 400 mm                  |
| scanning range close limit Sdc | 60 ... 400 mm                  |
| scanning range far limit Sde   | 60 ... 400 mm                  |
| repeat accuracy                | < 0,5 mm                       |
| resolution                     | < 0,3 mm                       |
| response time ton              | < 60 ms                        |
| release time toff              | < 60 ms                        |
| temperature drift              | < 2 % of distance to target So |
| sonic frequency                | 400 kHz                        |
| adjustment                     | Teach-in                       |
| alignment aid                  | target indication flashing     |
| light indicator                | yellow LED / red LED           |

### electrical data

|                             |               |
|-----------------------------|---------------|
| voltage supply range +Vs    | 15 ... 30 VDC |
| output current              | < 20 mA       |
| residual ripple             | < 10 % Vs     |
| short circuit protection    | yes           |
| reverse polarity protection | yes           |

### voltage output

|                                    |                         |
|------------------------------------|-------------------------|
| current consumption max. (no load) | 35 mA                   |
| output signal                      | 0 ... 10 V / 10 ... 0 V |

### current output

|                                    |                           |
|------------------------------------|---------------------------|
| current consumption max. (no load) | 55 mA                     |
| output signal                      | 4 ... 20 mA / 20 ... 4 mA |
| load resistance +Vs max.           | < 1100 Ohm                |
| load resistance +Vs min.           | < 400 Ohm                 |

### sample picture





## Ultrasonic distance measuring sensors

## UNAR 18 (Sde = 400 mm)

Ultrasonic sensors

| mechanical data                          |                              |
|--|------------------------------|
| type                                     | cylindrical threaded         |
| housing material                         | stainless steel 1.4435 (V4A) |
| coating active face                      | Parylene                     |
| material O-ring                          | FFKM                         |
| front of sensor durable against pressure | 6 bar, 20'000 cycle          |
| width / diameter                         | 18 mm                        |
| height / length                          | 91,5 mm                      |
| connection types                         | connector M12                |

| ambient conditions    |              |
|-----------------------|--------------|
| operating temperature | 0 ... +60 °C |
| protection class      | IP 67        |

| order reference   | output circuit |
|-------------------|----------------|
| UNAR 18I6912/S14G | current output |
| UNAR 18U6912/S14G | voltage output |