



## Properties

- 500 mm and 2000 mm sensing range versions
- DC, switching output
- Surface mount F54 housing
- Connector version

## Your Benefit

- Low mounting profile

## Technical Data

For detailed data and product description refer to the data sheets at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

### General Data

|                           |                                                            |
|---------------------------|------------------------------------------------------------|
| Operating voltage         | 10 ... 30 V DC , ripple 10 % <sub>SS</sub>                 |
| No-load supply current    | ≤ 55 mA                                                    |
| Rated operational current | 200 mA , short-circuit/overload protected                  |
| Input type                | 1 program input,                                           |
| Synchronization           | 1 synchronous input                                        |
| Ambient temperature       | -25 ... 70 °C (-13 ... 158 °F)                             |
| Material                  |                                                            |
| Housing                   | ABS                                                        |
| Transducer                | epoxy resin/hollow glass sphere mixture; polyurethane foam |
| Protection degree         | IP65                                                       |
| Connection type           | Device connector M12 x 1 , 5-pin                           |



| Model Number         | UB500-F54-E4-V15               | UB500-F54-E5-V15               | UB2000-F54-E4-V15              | UB2000-F54-E5-V15              |
|----------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Sensing range        | 30 ... 500 mm                  | 30 ... 500 mm                  | 80 ... 2000 mm                 | 80 ... 2000 mm                 |
| Transducer frequency | approx. 380 kHz                | approx. 380 kHz                | approx. 175 kHz                | approx. 175 kHz                |
| Output type          | 1 switch output E4, NPN, NO/NC | 1 switch output E4, NPN, NO/NC | 1 switch output E5, PNP, NO/NC | 1 switch output E5, PNP, NO/NC |
| Switching frequency  | max. 10 Hz                     | max. 10 Hz                     | max. 3 Hz                      | max. 3 Hz                      |

### Approvals and Certificates

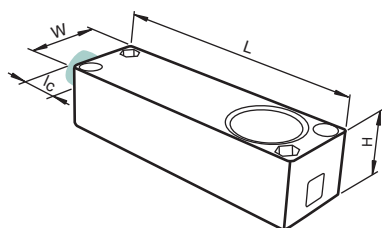
|              |                                |   |   |   |   |
|--------------|--------------------------------|---|---|---|---|
| UL approval  | cULus Listed, General Purpose  | ● | ● | ● | ● |
| CSA approval | cCSAus Listed, General Purpose | ● | ● | ● | ● |

### Dimensions

|                                    |     |
|------------------------------------|-----|
| Length L [mm]                      | 105 |
| Width W [mm]                       | 32  |
| Height H [mm]                      | 25  |
| Connector area l <sub>c</sub> [mm] | 15  |

## Accessories

|              |                                     |
|--------------|-------------------------------------|
| UB-PROG2     | Programming unit                    |
| V15-G-2M-PVC | Cable socket, M12, 5-pin, PVC cable |
| V15-W-2M-PUR | Cable socket, M12, 5-pin, PUR cable |

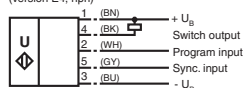


## Electrical Connection



UB500-F54-E4-V15  
UB2000-F54-E4-V15

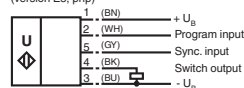
Standard symbol/Connections:  
(version E4, npn)



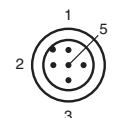
Wire colors in accordance with EN 60947-5-2.

UB500-F54-E5-V15  
UB2000-F54-E5-V15

Standard symbol/Connections:  
(version E5, pnp)



Wire colors in accordance with EN 60947-5-2.



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |
| 5 | GY | (gray)  |

Date of issue: 04/08/2015



## Properties

- 500 mm and 2000 mm sensing range versions
- DC, analog output
- Surface mount F54 housing
- Connector version

## Your Benefit

- Low mounting profile

## Technical Data

For detailed data and product description refer to the data sheets at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

### General Data

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| No-load supply current                | ≤ 55 mA                                                    |
| Deviation of the characteristic curve | ± 1 % of full-scale value                                  |
| Input type                            | 1 program input                                            |
| Synchronization                       | 1 synchronous input                                        |
| Ambient temperature                   | -25 ... 70 °C (-13 ... 158 °F)                             |
| Material                              |                                                            |
| Housing                               | ABS                                                        |
| Transducer                            | epoxy resin/hollow glass sphere mixture; polyurethane foam |
| Protection degree                     | IP65                                                       |
| Connection type                       | Device connector M12 x 1, 5-pin                            |



### Model Number

|                      |                                                                                        | UB500-F54-I-V15 | UB500-F54-U-V15 | UB2000-F54-I-V15 | UB2000-F54-U-V15 |
|----------------------|----------------------------------------------------------------------------------------|-----------------|-----------------|------------------|------------------|
| Sensing range        | green = preferred type<br>30 ... 500 mm<br>80 ... 2000 mm                              | ●               | ●               | ●                | ●                |
| Transducer frequency | approx. 380 kHz<br>approx. 175 kHz                                                     | ●               | ●               | ●                | ●                |
| Operating voltage    | 10 ... 30 V DC, ripple 10 % <sub>SS</sub><br>15 ... 30 V DC, ripple 10 % <sub>SS</sub> | ●               | ●               | ●                | ●                |
| Output type          | 1 analog output 0 ... 10 V<br>1 analog output 4 ... 20 mA                              | ●               | ●               | ●                | ●                |
| Resolution           | 0.11 mm<br>0.13 mm<br>0.47 mm<br>0.5 mm                                                | ●               | ●               | ●                | ●                |

### Approvals and Certificates

|              |                                |   |   |   |   |
|--------------|--------------------------------|---|---|---|---|
| UL approval  | cULus Listed, General Purpose  | ● | ● | ● | ● |
| CSA approval | cCSAus Listed, General Purpose | ● | ● | ● | ● |

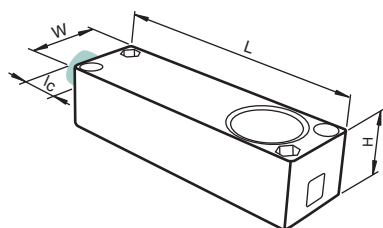
### Dimensions

|                                    |     |
|------------------------------------|-----|
| Length L [mm]                      | 105 |
| Width W [mm]                       | 32  |
| Height H [mm]                      | 25  |
| Connector area l <sub>c</sub> [mm] | 15  |

## Accessories

This and more accessories can be found in chapter 3.5 from page 673  
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

|              |                                     |
|--------------|-------------------------------------|
| UB-PROG2     | Programming unit                    |
| V15-G-2M-PVC | Cable socket, M12, 5-pin, PVC cable |
| V15-W-2M-PUR | Cable socket, M12, 5-pin, PUR cable |

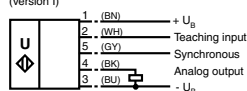


## Electrical Connection



UB500-F54-I-V15  
UB2000-F54-I-V15

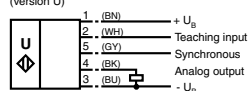
Standard symbol/Connections:  
(version I)



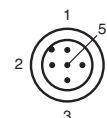
Core colours in accordance with EN 60947-5-2.

UB500-F54-U-V15  
UB2000-F54-U-V15

Standard symbol/Connections:  
(version U)



Core colours in accordance with EN 60947-5-2.



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |
| 5 | GY | (gray)  |