



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	10 ... 30 V DC , ripple 10 % _{SS}
No-load supply current	≤ 50 mA
Rated operational current	200 mA , short-circuit/overload protected
Input type	1 program input,
Synchronization	bi-directional
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	nickel plated brass; plastic components: PBT
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin



Properties

- Up to 6000 mm sensing range versions
- DC, switching output
- Ø30 mm cylindrical housing
- Connector version








Your Benefit

- Teach-wire or UB-PROG2 pushbutton configurable

Model Number

		UB	UB	UB	UB	UB	UB	UB	UB
Sensing range	30 ... 500 mm	●	●						
	80 ... 2000 mm			●	●				
	200 ... 4000 mm					●	●		
	350 ... 6000 mm							●	●
Transducer frequency	approx. 380 kHz	●	●						
	approx. 180 kHz			●	●				
	approx. 85 kHz					●	●		
	approx. 65 kHz							●	●
Output type	1 switch output NPN , Normally open/ closed , programmable	●		●		●		●	
	1 switch output PNP , Normally open/ closed , programmable		●		●		●		●

Approvals and Certificates

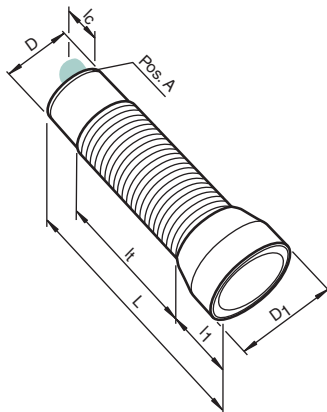
UL approval	cULus Listed, General Purpose							
CSA approval	cCSAus Listed, General Purpose							

Dimensions

Length L [mm]	94	108	112
Diameter D [mm]	30		
Transducer diameter D ₁ [mm]	30	40	73
Transducer length l ₁ [mm]	0	25	32,5
Thread length l _t [mm]	72	61	57,5
Connector area l _c [mm]	10		
LED position	Pos. A		

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

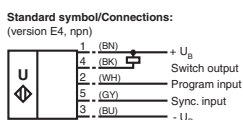
BF 30	Mounting flange, 30 mm
BF 30-F	Mounting flange with dead stop, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
UB-PROG2	Programming unit
V15-G-2M-PVC	Cable socket, M12, 5-pin, PVC cable
UVW90-M30	Ultrasonic -deflector
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UVW90-K30	Ultrasonic -deflector



Electrical Connection

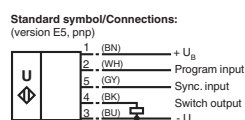


UB500-30GM-E4-V15
UB4000-30GM-E4-V15
UB2000-30GM-E4-V15
UB6000-30GM-E4-V15

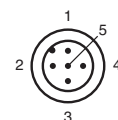


Wire colors in accordance with EN 60947-5-2.

UB2000-30GM-E5-V15
UB6000-30GM-E5-V15
UB4000-30GM-E5-V15
UB500-30GM-E5-V15



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)



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	10 ... 30 V DC , ripple 10 % _{SS}
No-load supply current	≤ 50 mA
Interface type	RS 232, 9600 Bit/s , no parity, 8 data bits, 1 stop bit
Rated operational current	200 mA , short-circuit/overload protected
Synchronization	bi-directional
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	stainless steel (1.4305 / AISI 303), PBT plastic parts
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin



Properties

- Up to 6000 mm sensing range versions
- DC, 2 switching outputs
- Ø30 mm cylindrical housing
- Connector version

Your Benefit

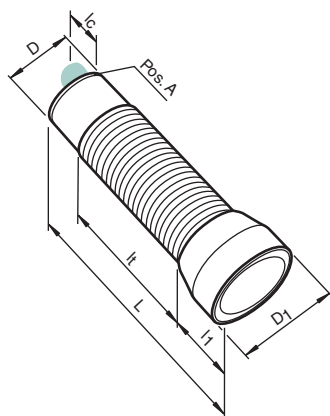
- Potentiometer-free configuration via programming plug or ULTRA3000 software

Further Products

In this series, we offer additionally:

UCC1000-30GM-E6R2-V15

Technical data like UC2000-30GM-E6R2-V15 but:
Sensing range: 1000 mm
Transducer: chemical resistant PTFE coated



Model Number

		UC500-30GM-E6R2-V15	UC500-30GM-E7R2-V15	UC2000-30GM-E6R2-V15	UC2000-30GM-E7R2-V15	UC4000-30GM-E6R2-V15	UC4000-30GM-E7R2-V15	UC6000-30GM-E6R2-V15	UC6000-30GM-E7R2-V15
Sensing range	30 ... 500 mm	●	●						
	80 ... 2000 mm			●	●				
	200 ... 4000 mm					●	●		
	350 ... 6000 mm							●	●
Transducer frequency	approx. 380 kHz	●	●						
	approx. 180 kHz			●	●				
	approx. 85 kHz					●	●		
	approx. 65 kHz							●	●
Output type	2 switch outputs NPN, NO/NC, programmable		●		●		●		●
	2 switch outputs PNP, NO/NC, programmable	●		●		●		●	
Switching frequency	≤ 0.5 Hz							●	●
	≤ 1 Hz					●	●		
	≤ 2.5 Hz			●	●				
	≤ 7 Hz	●	●						

Approvals and Certificates

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

Dimensions

Length L [mm]	94	108	112
Diameter D [mm]		30	
Transducer diameter D ₁ [mm]	30	40	73
Transducer length l ₁ [mm]	0	25	32,5
Thread length l _t [mm]	72	61	57,5
Connector area l _c [mm]		10	
LED position		Pos. A	
Temperature / program plug		Pos. A , 27,5 mm	

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

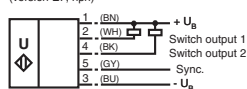
BF 30	Mounting flange, 30 mm
UC-30GM-R2	Programming cable
ULTRA3000	Software for ultrasonic sensors, comfort line
UVW90-M30	Ultrasonic -deflector
V15-G-2M-PVC	Cable socket, M12, 5-pin, PVC cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable

Electrical Connection



UC500-30GM-E7R2-V15
UC2000-30GM-E7R2-V15
UC4000-30GM-E7R2-V15
UC6000-30GM-E7R2-V15

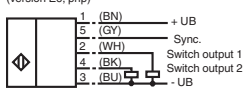
Standard symbol/Connection:
(version E7, npn)



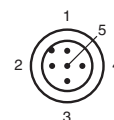
Core colors in accordance with EN 60947-5-2.

UC500-30GM-E6R2-V15
UC2000-30GM-E6R2-V15
UC4000-30GM-E6R2-V15
UC6000-30GM-E6R2-V15
UCC1000-30GM-E6R2-V15

Standard symbol/Connection:
(version E6, pnp)



Core 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)



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	10 ... 30 V DC , ripple 10 % _{SS}
Power consumption	≤ 900 mW
Interface type	RS 232, 9600 Bit/s , no parity, 8 data bits, 1 stop bit
Output type	1 current output 4 ... 20 mA 1 voltage output 0 ... 10 V
Deviation of the characteristic curve	≤ 0.2 % of full-scale value
Synchronization	bi-directional
Material	
Housing	stainless steel (1.4305 / AISI 303), PBT plastic parts
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin



Properties

- Up to 6000 mm sensing range versions
- DC, analog outputs
- Ø30 mm cylindrical housing
- Connector version

Your Benefit

- Potentiometer-free configuration via programming plug or ULTRA3000 software

Further Products

In this series, we offer additionally:

UCC1000-30GM-IUR2-V15

Technical data like UC2000-30GM-IUR2-V15 but:
Sensing range: 1000 mm
Transducer: chemical resistant PTFE coated

Model Number

		UC300-30GM-IUR2-V15	UC500-30GM-IUR2-V15	UC2000-30GM-IUR2-V15	UC4000-30GM-IUR2-V15	UC6000-30GM-IUR2-V15
Sensing range	15 ... 300 mm	●				
	30 ... 500 mm		●			
	80 ... 2000 mm			●		
	200 ... 4000 mm				●	
	350 ... 6000 mm					●
Transducer frequency	approx. 380 kHz	●	●			
	approx. 180 kHz			●		
	approx. 85 kHz				●	
	approx. 65 kHz					●
Resolution	evaluation range [mm]/4000, but ≥ 0.05 mm	●	●			
	evaluation range [mm]/4000, but ≥ 0.35 mm			●	●	●
Ambient temperature	0 ... 70 °C (32 ... 158 °F)	●				
	-25 ... 70 °C (-13 ... 158 °F)		●	●	●	●

Approvals and Certificates

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

Dimensions

Length L [mm]	114	128	132
Diameter D [mm]	30		
Transducer diameter D ₁ [mm]	30	40	73
Transducer length l ₁ [mm]	0	25	32,5
Thread length l _t [mm]	92	81	77,5
Connector area l _c [mm]	10		
LED position	Pos. A		
Temperature / program plug	Pos. A , 27.5 mm		

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

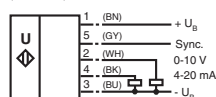
BF 30	Mounting flange, 30 mm
BF 30-F	Mounting flange with dead stop, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
UC-30GM-R2	Programming cable
ULTRA3000	Software for ultrasonic sensors, comfort line
V15-G-2M-PVC	Cable socket, M12, 5-pin, PVC cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable

Electrical Connection

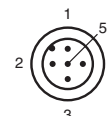


UC300-30GM-IUR2-V15
UC500-30GM-IUR2-V15
UC2000-30GM-IUR2-V15
UC4000-30GM-IUR2-V15
UC6000-30GM-IUR2-V15
UCC1000-30GM-IUR2-V15

Standard symbol/Connection:
(version IU)



Core 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)



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	10 ... 30 V DC , ripple 10 % _{SS}
No-load supply current	≤ 50 mA
Interface type	RS 232, 9600 Bit/s , no parity, 8 data bits, 1 stop bit
Output type	2 switch outputs PNP, NO/NC, programmable
Rated operational current	200 mA , short-circuit/overload protected
Synchronization	bi-directional
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	stainless steel (1.4305 / AISI 303), PBT plastic parts
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	sensor head: IP67 connector sensor head/controller unit: IP52
Connection type	Device connector M12 x 1 , 5-pin



Properties

- 300 mm and 1000 mm sensing range versions
- DC, 2 switching outputs
- Ø30 mm cylindrical housing with separate head
- Connector version

Your Benefit

- Provides maximum sensing range in space-restricted mounting areas
- Potentiometer-free configuration via programming plug or ULTRA3000 software

Model Number

		UC300-30GM-E6R2-K-V15	UC1000-30GM-E6R2-K-V15
Sensing range	30 ... 300 mm 80 ... 1000 mm	●	●
Transducer frequency	approx. 380 kHz approx. 180 kHz	●	●
Switching frequency	≤ 2.5 Hz ≤ 7 Hz	●	●

Approvals and Certificates

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

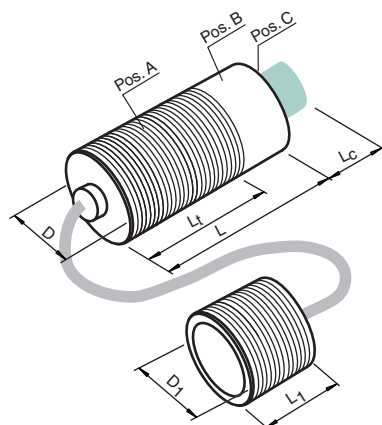
Dimensions

Length L [mm]	93,5	112
Diameter D [mm]	30	
Transducer diameter D ₁ [mm]	18	30
Transducer length l ₁ [mm]	25	27
Thread length l _t [mm]	71,5	90
Connector area l _c [mm]	10	
LED position	Pos. C	
Temperature / program plug	Pos. C , 27.5 mm	

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

BF 30	Mounting flange, 30 mm
BF 30-F	Mounting flange with dead stop, 30 mm
BF 18	Mounting flange, 18 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
BF 18-F	Mounting flange with dead stop, 18 mm
UC-30GM-R2	Programming cable
ULTRA3000	Software for ultrasonic sensors, comfort line
V15-G-2M-PVC	Cable socket, M12, 5-pin, PVC cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable

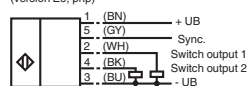


Electrical Connection

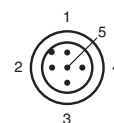


UC300-30GM-E6R2-K-V15
UC1000-30GM-E6R2-K-V15

Standard symbol/Connection:
(version E6, pnp)



Core 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)



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	10 ... 30 V DC , ripple 10 % _{SS}
Power consumption	≤ 900 mW
Interface type	RS 232, 9600 Bit/s , no parity, 8 data bits, 1 stop bit
Output type	1 current output 4 ... 20 mA 1 voltage output 0 ... 10 V
Deviation of the characteristic curve	≤ 0.2 % of full-scale value
Synchronization	bi-directional
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	stainless steel (1.4305 / AISI 303), PBT plastic parts
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	sensor head: IP67 connector sensor head/controller unit: IP52
Connection type	Device connector M12 x 1 , 5-pin



Properties

- 300 mm and 1000 mm sensing range versions
- DC, analog outputs
- Ø30 mm cylindrical housing with separate head
- Connector version

Your Benefit

- Provides maximum sensing range in space-restricted mounting areas
- Potentiometer-free configuration via programming plug or ULTRA3000 software

Model Number

		UC300-30GM-IUR2-K-V15	UC1000-30GM-IUR2-K-V15
Sensing range	30 ... 300 mm	●	
	80 ... 1000 mm		●
Transducer frequency	approx. 380 kHz	●	
	approx. 180 kHz		●
Resolution	evaluation range [mm]/4000, but ≥ 0.05 mm	●	
	evaluation range [mm]/4000, but ≥ 0.35 mm		●

Approvals and Certificates

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

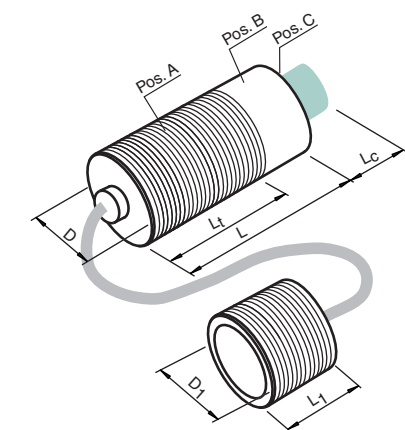
Dimensions

Length L [mm]	112
Diameter D [mm]	30
Transducer diameter D ₁ [mm]	18 30
Transducer length l ₁ [mm]	25 27
Thread length l _t [mm]	90
Connector area l _c [mm]	10
LED position	Pos. C
Temperature / program plug	Pos. C , 27.5 mm

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

BF 18	Mounting flange, 18 mm
BF 30	Mounting flange, 30 mm
BF 18-F	Mounting flange with dead stop, 18 mm
BF 30-F	Mounting flange with dead stop, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
UC-30GM-R2	Programming cable
ULTRA3000	Software for ultrasonic sensors, comfort line
DA5-IU-2K-V	Process control and indication equipment
V15-G-2M-PVC	Cable socket, M12, 5-pin, PVC cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable

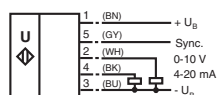


Electrical Connection

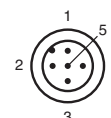


UC300-30GM-IUR2-K-V15
UC1000-30GM-IUR2-K-V15

Standard symbol/Connection:
(version IU)



Core 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)



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	12 ... 30 V DC (including ripple)
No-load supply current	≤ 50 mA
Potentiometer	Switching output 1 and Switching output 2 adjustable
Interface type	Infrared
Output type	2 switch outputs PNP, NO (NC programmable)
Operating current	Per 150 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional / TEACH-IN input, programmable
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	brass, nickel-plated
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin

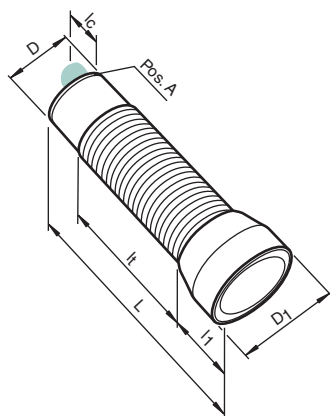


Properties

- Up to 6000 mm sensing range versions
- DC, 2 switching outputs
- Ø30 mm cylindrical housing
- Connector version

Your Benefit

- Simple potentiometer-based configuration
- Optional, expanded configuration control via ULTRA-PROG-IR software and interface



Model Number

		UC500-30GM70-2E2R2-V15	UC2000-30GM70-2E2R2-V15	UC3500-30GM70-2E2R2-V15	UC6000-30GM70-2E2R2-V15
Sensing range	45 ... 500 mm	●			
	100 ... 2000 mm		●		
	200 ... 3500 mm			●	
	350 ... 6000 mm				●
Transducer frequency	approx. 300 kHz	●			
	approx. 200 kHz		●		
	approx. 120 kHz			●	
	approx. 80 kHz				●

Approvals and Certificates

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

Dimensions

Diameter D [mm]	30
Length L [mm]	99,3 121,2
Thread length l_t [mm]	74,7 62
Transducer diameter D_1 [mm]	30 65
Transducer length l_1 [mm]	0,3 0,5 36,5
Connector area l_c [mm]	10,5

Accessories

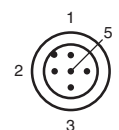
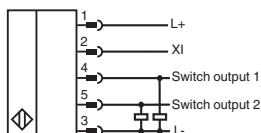
This and more accessories can be found in chapter 3.5 from page 673
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

BF 30	Mounting flange, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
V15-G-2M-PUR	Cable socket, M12, 5-pin, PUR cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UC-18/30GM-IR	Interface cable
ULTRA-PROG-IR	Service program

Electrical Connection



UC500-30GM70-2E2R2-V15
UC2000-30GM70-2E2R2-V15
UC3500-30GM70-2E2R2-V15
UC6000-30GM70-2E2R2-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	12 ... 30 V DC (including ripple)
No-load supply current	≤ 50 mA
Potentiometer	Switching output 1 and Switching output 2 adjustable
Interface type	Infrared
Output type	2 switch outputs PNP, NO (NC programmable)
Operating current	Per 150 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional / TEACH-IN input, programmable
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	brass, nickel-plated
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin



Properties

- Up to 6000 mm sensing range versions
- DC, 2 switching outputs
- Ø30 mm cylindrical housing with adjustable head
- Connector version

Your Benefit

- Simple potentiometer-based configuration
- Optional, expanded configuration control via ULTRA-PROG-IR software and interface

Model Number

		UC500-30GM70S-2E2R2-V15	UC2000-30GM70S-2E2R2-V15	UC3500-30GM70S-2E2R2-V15	UC6000-30GM70S-2E2R2-V15
Sensing range	45 ... 500 mm	●			
	100 ... 2000 mm		●		
	200 ... 3500 mm			●	
	350 ... 6000 mm				●
Transducer frequency	approx. 300 kHz	●			
	approx. 200 kHz		●		
	approx. 120 kHz			●	
	approx. 80 kHz				●

Approvals and Certificates

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

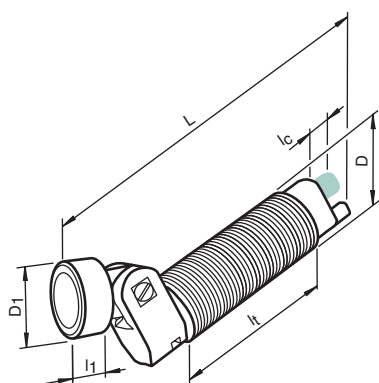
Dimensions

Diameter D [mm]	30
Length L [mm]	126 143,5
Thread length l_t [mm]	74,4
Transducer diameter D_1 [mm]	30 65
Transducer length l_1 [mm]	28 37,2
Connector area l_c [mm]	10,5

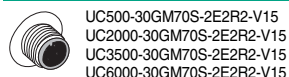
Accessories

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

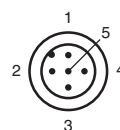
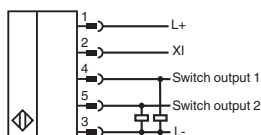
BF 30	Mounting flange, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
V15-G-2M-PUR	Cable socket, M12, 5-pin, PUR cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UC-18/30GM-IR	Interface cable
ULTRA-PROG-IR	Service program



Electrical Connection



UC500-30GM70S-2E2R2-V15
UC2000-30GM70S-2E2R2-V15
UC3500-30GM70S-2E2R2-V15
UC6000-30GM70S-2E2R2-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	12 ... 30 V DC (including ripple)
No-load supply current	≤ 50 mA
Potentiometer	Switching output 1 and Switching output 2 adjustable
Interface type	Infrared
Output type	2 switch outputs PNP, NO (NC programmable)
Operating current	Per 150 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional / TEACH-IN input, programmable
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	brass, nickel-plated
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin



Properties

- 500 mm and 2000 mm sensing range versions
- DC, 2 switching outputs
- Ø30 mm cylindrical housing with separate head
- Connector version

Your Benefit

- Provides maximum sensing range in space-restricted mounting areas
- Simple potentiometer-based configuration
- Optional, expanded configuration control via ULTRA-PROG-IR software and interface

Model Number

	UC500-30GM70-2E2R2-K-V15	UC2000-30GM70-2E2R2-K-V15
Sensing range	45 ... 500 mm	100 ... 2000 mm
Transducer frequency	approx. 300 kHz	approx. 200 kHz

Approvals and Certificates

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

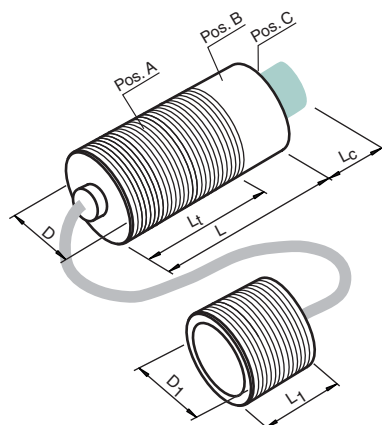
Dimensions

Diameter D [mm]	30
Length L [mm]	111,3
Thread length l _t [mm]	74,4
Transducer diameter D ₁ [mm]	18
Transducer length l ₁ [mm]	26,7
Connector area l _c [mm]	10,5

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

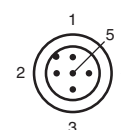
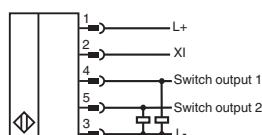
BF 30	Mounting flange, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
V15-G-2M-PUR	Cable socket, M12, 5-pin, PUR cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UC-18/30GM-IR	Interface cable
ULTRA-PROG-IR	Service program



Electrical Connection



UC500-30GM70-2E2R2-K-V15
UC2000-30GM70-2E2R2-K-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	20 ... 30 V DC (including ripple)
No-load supply current	≤ 50 mA
Potentiometer	switch output adjustable
Interface type	Infrared
Output type	1 switch output PNP, NO (NC programmable)
Operating current	300 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional / TEACH-IN input, programmable
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	brass, nickel-plated
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin



Properties

- Up to 6000 mm sensing range versions
- DC, analog and switching output
- Ø30 mm cylindrical housing
- Connector version

Your Benefit

- Simple potentiometer-based configuration
- Optional, expanded configuration control via ULTRA-PROG-IR software and interface

Model Number

		UC500-30GM70-IE2R2-V15	UC500-30GM70-UE2R2-V15	UC2000-30GM70-IE2R2-V15	UC2000-30GM70-UE2R2-V15	UC3500-30GM70-IE2R2-V15	UC3500-30GM70-UE2R2-V15	UC6000-30GM70-IE2R2-V15	UC6000-30GM70-UE2R2-V15
Sensing range	green = preferred type	●	●	●	●	●	●	●	●
	45 ... 500 mm								
	100 ... 2000 mm			●	●				
	200 ... 3500 mm					●	●		
	350 ... 6000 mm							●	●
Transducer frequency	approx. 300 kHz	●	●						
	approx. 200 kHz			●	●				
	approx. 120 kHz					●	●		
	approx. 80 kHz							●	●
Output type	1 voltage output 0 ... 10 V , ascending/descending programmable		●		●		●	●	●
	1 current output 4 ... 20 mA , ascending/descending programmable	●	●			●			●

Approvals and Certificates

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

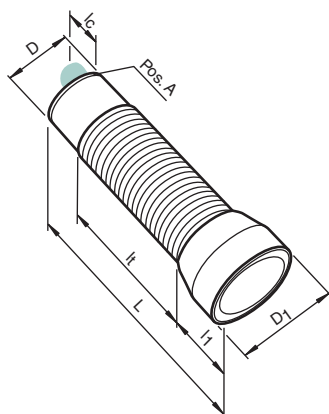
Dimensions

Diameter D [mm]	30		
Length L [mm]	99,3		121,2
Thread length l _t [mm]	74,7		62
Transducer diameter D ₁ [mm]	30		
Transducer length l ₁ [mm]	0,3	0,5	65
Connector area l _c [mm]	10,5		

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

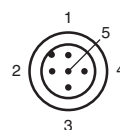
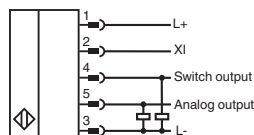
BF 30	Mounting flange, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
V15-G-2M-PUR	Cable socket, M12, 5-pin, PUR cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UC-18/30GM-IR	Interface cable
ULTRA-PROG-IR	Service program



Electrical Connection



UC500-30GM70-IE2R2-V15
UC500-30GM70-UE2R2-V15
UC2000-30GM70-IE2R2-V15
UC2000-30GM70-UE2R2-V15
UC3500-30GM70-IE2R2-V15
UC3500-30GM70-UE2R2-V15
UC6000-30GM70-IE2R2-V15
UC6000-30GM70-UE2R2-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	20 ... 30 V DC (including ripple)
No-load supply current	≤ 50 mA
Potentiometer	switch output adjustable
Interface type	Infrared
Output type	1 switch output PNP, NO (NC programmable)
Operating current	300 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional / TEACH-IN input, programmable
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	brass, nickel-plated
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin



Properties

- Up to 6000 mm sensing range versions
- DC, analog and switching output
- Ø30 mm cylindrical housing with adjustable head
- Connector version

Your Benefit

- Simple potentiometer-based configuration
- Optional, expanded configuration control via ULTRA-PROG-IR software and interface

Model Number

		UC500-30GM70S-IE2R2-V15	UC500-30GM70S-UE2R2-V15	UC2000-30GM70S-IE2R2-V15	UC2000-30GM70S-UE2R2-V15	UC3500-30GM70S-IE2R2-V15	UC3500-30GM70S-UE2R2-V15	UC6000-30GM70S-IE2R2-V15	UC6000-30GM70S-UE2R2-V15
Sensing range	45 ... 500 mm	●	●						
	100 ... 2000 mm			●	●				
	200 ... 3500 mm					●	●		
	350 ... 6000 mm							●	●
Transducer frequency	approx. 300 kHz	●	●						
	approx. 200 kHz			●	●				
	approx. 120 kHz					●	●		
	approx. 80 kHz							●	●
Output type	1 voltage output 0 ... 10 V , ascending/descending programmable		●		●		●		●
	1 current output 4 ... 20 mA , ascending/descending programmable	●		●		●		●	

Approvals and Certificates

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

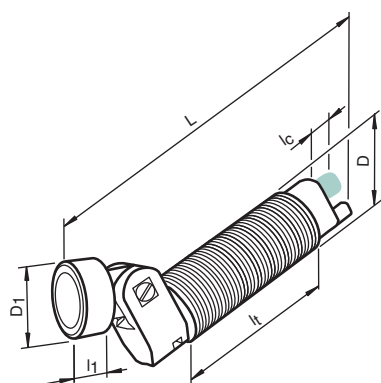
Dimensions

Diameter D [mm]	30
Length L [mm]	126 143,5
Thread length l_t [mm]	74,4
Transducer diameter D_1 [mm]	30 65
Transducer length l_1 [mm]	28 37,2
Connector area l_c [mm]	10,5

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

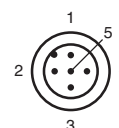
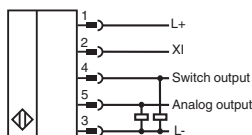
BF 30	Mounting flange, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
V15-G-2M-PUR	Cable socket, M12, 5-pin, PUR cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UC-18/30GM-IR	Interface cable
ULTRA-PROG-IR	Service program



Electrical Connection



UC500-30GM70S-IE2R2-V15
UC500-30GM70S-UE2R2-V15
UC2000-30GM70S-IE2R2-V15
UC2000-30GM70S-UE2R2-V15
UC3500-30GM70S-IE2R2-V15
UC3500-30GM70S-UE2R2-V15
UC6000-30GM70S-IE2R2-V15
UC6000-30GM70S-UE2R2-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	20 ... 30 V DC (including ripple)
No-load supply current	≤ 50 mA
Potentiometer	switch output adjustable
Interface type	Infrared
Output type	1 switch output PNP, NO (NC programmable)
Operating current	300 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional / TEACH-IN input, programmable
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	brass, nickel-plated
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin



Properties

- 500 mm and 2000 mm sensing range versions
- DC, analog and switching output
- Ø30 mm cylindrical housing with separate head
- Connector version

Your Benefit

- Provides maximum sensing range in space-restricted mounting areas
- Simple potentiometer-based configuration
- Optional, expanded configuration control via ULTRA-PROG-IR software and interface

Model Number

	green = preferred type	UC500-30GM70-IE2R2-K-V15	UC500-30GM70-UE2R2-K-V15	UC2000-30GM70-IE2R2-K-V15	UC2000-30GM70-UE2R2-K-V15
Sensing range	45 ... 500 mm	●	●		
	100 ... 2000 mm			●	●
Transducer frequency	approx. 300 kHz	●	●		
	approx. 200 kHz			●	●
Output type	1 voltage output 0 ... 10 V , ascending/descending programmable		●		●
	1 current output 4 ... 20 mA , ascending/descending programmable	●		●	

Approvals and Certificates

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

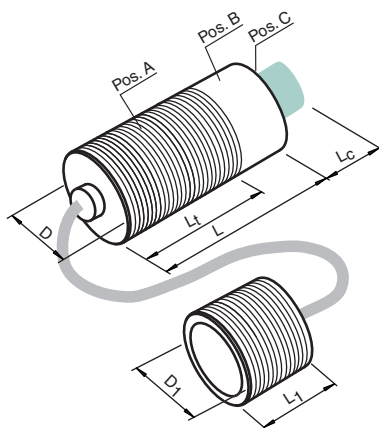
Dimensions

Diameter D [mm]	30
Length L [mm]	111,3
Thread length l_t [mm]	74,4
Transducer diameter D_1 [mm]	18
Transducer length l_1 [mm]	26,7
Connector area l_c [mm]	10,5

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

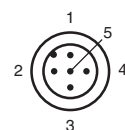
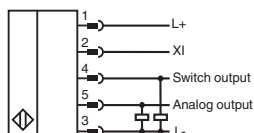
BF 30	Mounting flange, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
V15-G-2M-PUR	Cable socket, M12, 5-pin, PUR cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UC-18/30GM-IR	Interface cable
ULTRA-PROG-IR	Service program



Electrical Connection



UC500-30GM70-IE2R2-K-V15
UC500-30GM70-UE2R2-K-V15
UC2000-30GM70-IE2R2-K-V15
UC2000-30GM70-UE2R2-K-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	20 ... 30 V DC (including ripple)
No-load supply current	≤ 50 mA
Potentiometer	switch output adjustable
Interface type	Infrared
Output type	1 switch output PNP, NO (NC programmable)
Operating current	300 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional / TEACH-IN input, programmable
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	High grade stainless steel
Transducer	PTFE coated; epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin

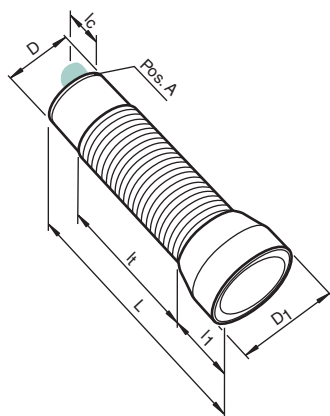


Properties

- Up to 6000 mm sensing range versions
- DC, analog and switching output
- Ø30 mm cylindrical housing
- Connector version

Your Benefit

- Chemically resistant PTFE-coated sensing face and corrosion resistant high grade stainless steel housing
- Simple potentiometer-based configuration
- Optional, expanded configuration control via ULTRA-PROG-IR software and interface



Model Number

		UCC500-30GH70-IE2R2-V15	UCC500-30GH70-UE2R2-V15	UCC2000-30GH70-IE2R2-V15	UCC2000-30GH70-UE2R2-V15	UCC3500-30GH70-IE2R2-V15	UCC3500-30GH70-UE2R2-V15	UCC6000-30GH70-IE2R2-V15	UCC6000-30GH70-UE2R2-V15
Sensing range	45 ... 500 mm	●	●						
	100 ... 2000 mm			●	●				
	200 ... 3500 mm					●	●		
	350 ... 6000 mm							●	●
Transducer frequency	approx. 300 kHz	●	●						
	approx. 200 kHz			●	●				
	approx. 120 kHz					●	●		
	approx. 80 kHz							●	●
Output type	1 voltage output 0 ... 10 V , ascending/descending programmable		●		●		●		●
	1 current output 4 ... 20 mA , ascending/descending programmable	●		●		●		●	

Approvals and Certificates

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

Dimensions

Diameter D [mm]	30
Length L [mm]	99,3 121,2
Thread length l ₁ [mm]	74,7 62
Transducer diameter D ₁ [mm]	30 65
Transducer length l ₂ [mm]	0,3 0,5 36,5
Connector area l _c [mm]	10,5

Accessories

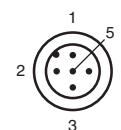
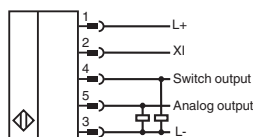
This and more accessories can be found in chapter 3.5 from page 673
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

BF 30	Mounting flange, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
V15-G-2M-PUR	Cable socket, M12, 5-pin, PUR cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UC-18/30GM-IR	Interface cable
ULTRA-PROG-IR	Service program

Electrical Connection



UCC500-30GH70-IE2R2-V15
UCC500-30GH70-UE2R2-V15
UCC2000-30GH70-IE2R2-V15
UCC2000-30GH70-UE2R2-V15
UCC3500-30GH70-IE2R2-V15
UCC3500-30GH70-UE2R2-V15
UCC6000-30GH70-IE2R2-V15
UCC6000-30GH70-UE2R2-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	20 ... 30 V DC (including ripple)
No-load supply current	≤ 50 mA
Potentiometer	switch output adjustable
Interface type	Infrared
Output type	1 switch output PNP, NO (NC programmable)
Operating current	300 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional / TEACH-IN input, programmable
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	High grade stainless steel
Transducer	PTFE coated; epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin



Properties

- Up to 6000 mm sensing range versions
- DC, analog and switching output
- Ø30 mm cylindrical housing with adjustable head
- Connector version

Your Benefit

- Chemically resistant PTFE-coated sensing face and corrosion resistant high grade stainless steel housing
- Simple potentiometer-based configuration
- Optional, expanded configuration control via ULTRA-PROG-IR software and interface

Model Number

		UCC500-30GH70S-IE2R2-V15	UCC500-30GH70S-UE2R2-V15	UCC2000-30GH70S-IE2R2-V15	UCC2000-30GH70S-UE2R2-V15	UCC3500-30GH70S-IE2R2-V15	UCC3500-30GH70S-UE2R2-V15	UCC6000-30GH70S-IE2R2-V15	UCC6000-30GH70S-UE2R2-V15
Sensing range	45 ... 500 mm	●	●						
	100 ... 2000 mm			●	●				
	200 ... 3500 mm					●	●		
	350 ... 6000 mm							●	●
Transducer frequency	approx. 300 kHz	●	●						
	approx. 200 kHz			●	●				
	approx. 120 kHz					●	●		
	approx. 80 kHz							●	●
Output type	1 voltage output 0 ... 10 V , ascending/ descending programmable		●		●		●		●
	1 current output 4 ... 20 mA , ascending/ descending programmable	●	●			●		●	

Approvals and Certificates

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

Dimensions

Diameter D [mm]	30
Length L [mm]	143,5 126
Thread length l _t [mm]	74,4
Transducer diameter D ₁ [mm]	30 65
Transducer length l ₁ [mm]	28 37,2
Connector area l _c [mm]	10,5

Accessories

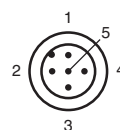
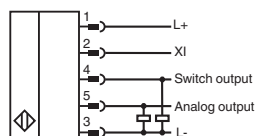
This and more accessories can be found in chapter 3.5 from page 673
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

BF 30	Mounting flange, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
V15-G-2M-PUR	Cable socket, M12, 5-pin, PUR cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UC-18/30GM-IR	Interface cable
ULTRA-PROG-IR	Service program

Electrical Connection



UCC2000-30GH70S-UE2R2-V15
UCC3500-30GH70S-IE2R2-V15
UCC3500-30GH70S-UE2R2-V15
UCC6000-30GH70S-IE2R2-V15
UCC6000-30GH70S-UE2R2-V15
UCC500-30GH70S-IE2R2-V15
UCC500-30GH70S-UE2R2-V15
UCC2000-30GH70S-IE2R2-V15



Wire colors in accordance with EN 60947-5-2

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





Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	20 ... 30 V DC (including ripple)
No-load supply current	≤ 50 mA
Potentiometer	switch output adjustable
Interface type	Infrared
Output type	1 switch output PNP, NO (NC programmable)
Operating current	300 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional / TEACH-IN input, programmable
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	High grade stainless steel
Transducer	PTFE coated; epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	Device connector M12 x 1 , 5-pin

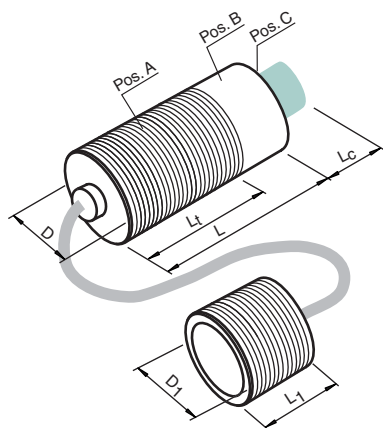


Properties

- 500 mm and 2000 mm sensing range versions
- DC, analog and switching output
- Ø30 mm cylindrical housing with separate head
- Connector version

Your Benefit

- Chemically resistant PTFE-coated sensing face and corrosion resistant high grade stainless steel housing
- Provides maximum sensing range in space-restricted mounting areas
- Simple potentiometer-based configuration
- Optional, expanded configuration control via ULTRA-PROG-IR software and interface



Model Number

	UCC500-30GH70-IE2R2-K-V15	UCC500-30GH70-UE2R2-K-V15	UCC2000-30GH70-IE2R2-K-V15	UCC2000-30GH70-UE2R2-K-V15
Sensing range	45 ... 500 mm	100 ... 2000 mm		
Transducer frequency	approx. 300 kHz	approx. 200 kHz		
Output type	1 voltage output 0 ... 10 V , ascending/descending programmable	1 current output 4 ... 20 mA , ascending/descending programmable		

Approvals and Certificates

UL approval	cULus Listed, General Purpose				
CSA approval	cCSAus Listed, General Purpose				

Dimensions

Diameter D [mm]	30
Length L [mm]	111,3
Thread length l ₁ [mm]	74,4
Transducer diameter D ₁ [mm]	18
Transducer length l ₁ [mm]	26,7
Connector area l _c [mm]	10,5

Accessories

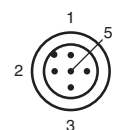
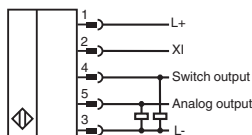
This and more accessories can be found in chapter 3.5 from page 673
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

BF 30	Mounting flange, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
V15-G-2M-PUR	Cable socket, M12, 5-pin, PUR cable
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
UC-18/30GM-IR	Interface cable
ULTRA-PROG-IR	Service program

Electrical Connection



UCC500-30GH70-IE2R2-K-V15
UCC500-30GH70-UE2R2-K-V15
UCC2000-30GH70-IE2R2-K-V15
UCC2000-30GH70-UE2R2-K-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	10 ... 30 V DC , ripple 10 % _{SS}
No-load supply current	≤ 60 mA
Power consumption	≤ 1 W
Interface type	IO-Link
SIO mode support	✓
Output type	2 Push-pull outputs, short-circuit protected, reverse polarity protection
Rated operational current	200 mA , short-circuit/overload protected
Input/output type	1 synchronization connection, bidirectional
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	Stainless steel 1.4305 / AISI 303, TPU, Polyamides
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65/IP67
Connection type	Device connector M12 x 1 , 5-pin



Properties

- Up to 6000 mm sensing range versions
- DC, IO-Link and switching output
- Ø30 mm cylindrical housing
- Connector version

Your Benefit

- Simple pushbutton-based configuration
- Continuous IO-Link accessibility to output status and configuration parameters
- Optional, expanded configuration control via PACTware
- High-visibility LED indicators

Model Number

		UC500-30GM-2EP-IO-V15	UC2000-30GM-2EP-IO-V15	UC4000-30GM-2EP-IO-V15	UC6000-30GM-2EP-IO-V15
Sensing range	35 ... 500 mm	●			
	80 ... 2000 mm		●		
	200 ... 4000 mm			●	
	350 ... 6000 mm				●
Transducer frequency	approx. 380 kHz	●			
	approx. 180 kHz		●		
	approx. 85 kHz			●	
	approx. 65 kHz				●
Switching frequency	≤ 11 Hz	●			
	≤ 4 Hz		●		
	≤ 2 Hz			●	
	≤ 1.5 Hz				●

Approvals and Certificates

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

Dimensions

Diameter D [mm]	30
Length L [mm]	81 86 93
Thread length l _t [mm]	54 36
Transducer diameter D ₁ [mm]	30 40 73
Transducer length l ₁ [mm]	2 25 32
Connector area l _c [mm]	11

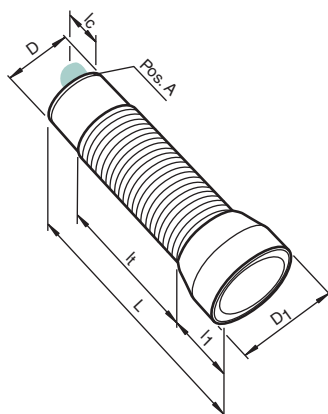
Accessories

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

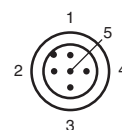
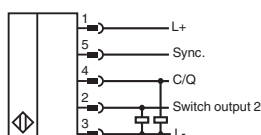
BF 30	Mounting flange, 30 mm
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
IO-Link-Master01-USB	IO-Link Master
IO-Link-Master-USB DTM	Communication DTM for use of IO-Link-Master
IODD Interpreter	Software for the integration of IODDs in a frame application (e. g. PACTware)
PACTware 4.X	FDT frame application



Electrical Connection



UC500-30GM-2EP-IO-V15
UC2000-30GM-2EP-IO-V15
UC4000-30GM-2EP-IO-V15
UC6000-30GM-2EP-IO-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	10 ... 30 V DC, ripple 10 % _{SS} 15 ... 30 V voltage output
No-load supply current	≤ 60 mA
Power consumption	≤ 1 W
Interface type	IO-Link
SIO mode support	✓
Output type	1 push-pull output, short-circuit protected, reverse polarity protected
Rated operational current	200 mA, short-circuit/overload protected
Analog output	Current output 4 mA ... 20 mA or voltage output 0 V ... 10 V configurable
Deviation of the characteristic curve	≤ 0.2 % of full-scale value
Input/output type	1 synchronization connection, bidirectional
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	Stainless steel 1.4305 / AISI 303, TPU, Polyamides
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65/IP67
Connection type	Device connector M12 x 1, 5-pin

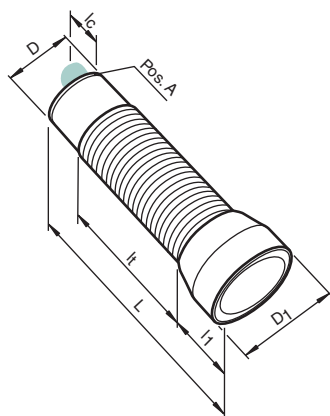


Properties

- Up to 6000 mm sensing range versions
- DC, IO-Link and analog output
- Ø30 mm cylindrical housing
- Connector version

Your Benefit

- Simple pushbutton-based configuration
- Continuous IO-Link accessibility to output status and configuration parameters
- Optional, expanded configuration control via PACTware
- High-visibility LED indicators



Model Number

	green = preferred type	UC500-30GM-IUEP-IO-V15	UC2000-30GM-IUEP-IO-V15	UC4000-30GM-IUEP-IO-V15	UC6000-30GM-IUEP-IO-V15
Sensing range	35 ... 500 mm	●			
	80 ... 2000 mm		●		
	200 ... 4000 mm			●	
	350 ... 6000 mm				●
Transducer frequency	approx. 380 kHz	●			
	approx. 180 kHz		●		
	approx. 85 kHz			●	
	approx. 65 kHz				●
Resolution	evaluation range [mm]/4000, but ≥ 0.05 mm	●			
	evaluation range [mm]/4000, but ≥ 0.35 mm		●	●	●
Switching frequency	≤ 11 Hz	●			
	≤ 4 Hz		●		
	≤ 2 Hz			●	
	≤ 1.5 Hz				●

Approvals and Certificates

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

Dimensions

Diameter D [mm]	30
Length L [mm]	81 86 93
Thread length l _t [mm]	54 36
Transducer diameter D ₁ [mm]	30 40 73
Transducer length l ₁ [mm]	2 25 32
Connector area l _c [mm]	11

Accessories

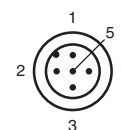
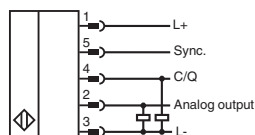
This and more accessories can be found in chapter 3.5 from page 673
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

BF 30	Mounting flange, 30 mm
V15-W-2M-PUR	Cable socket, M12, 5-pin, PUR cable
IO-Link-Master01-USB	IO-Link Master

Electrical Connection



UC500-30GM-IUEP-IO-V15
UC2000-30GM-IUEP-IO-V15
UC4000-30GM-IUEP-IO-V15
UC6000-30GM-IUEP-IO-V15



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Sensing range	200 ... 3000 mm
Transducer frequency	approx. 100 kHz
Operating voltage	10 ... 30 V DC
No-load supply current	≤ 50 mA
Input type	1 program input
Input/output type	1 synchronization connection, bidirectional
Ambient temperature	-25 ... 60 °C (-13 ... 140 °F)
Material	
Housing	Stainless steel 1.4404 / AISI 316L
Transducer	Stainless steel 1.4435 / AISI 316L
Protection degree	IP68 / IP69K
Connection type	cable PUR , 5 m



Properties

- 3000 mm sensing range
- DC, analog and switching output versions
- Ø30 mm cylindrical housing
- Cable version

Model Number

	green = preferred type	UMC3000-30H-E5-5M-FA	UMC3000-30H-I-5M-FA
Output type	1 analog output 4 ... 20 mA 1 switch output, PNP NO/NC, programmable	●	●
Rated operational current	200 mA , short-circuit/overload protected	●	
Resolution	Evaluation range [mm]/3200, however ≥ 0.4 mm		●
Deviation of the characteristic curve	≤ 0.2 % of full-scale value		●
Switching frequency	≤ 2.8 Hz	●	

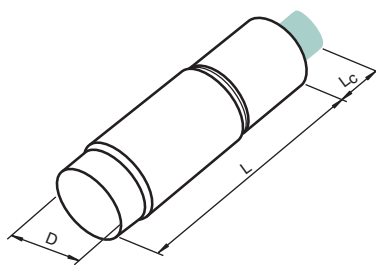
Dimensions

Length L [mm]	100
Diameter D [mm]	30
Thread length l _t [mm]	0
Connector area l _c [mm]	11

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

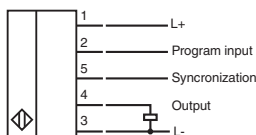
UC-PROG1	Programming adapter
V15S-G-0,3M-PUR-WAGO	Male cordset, M12, 5-pin, PUR cable with WAGO terminals
MH-30H-01-FA	Mounting aid, 30 mm acc. to EHEDG



Electrical Connection



UMC3000-30H-E5-5M-FA
UMC3000-30H-I-5M-FA



Wire colors in accordance with EN 60947-5-2

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



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	10 ... 30 V DC , ripple 10 % _{SS}
No-load supply current	≤ 30 mA
Input type	1 pulse input for transmitter pulse (clock)
Output type	1 pulse output for echo run time, short-circuit proof open collector PNP with pulldown resistor = 22 kOhm level 0 (no echo): -U _B level 1 (echo detected): ≥ (+U _B -2 V)
Ambient temperature	-25 ... 85 °C (-13 ... 185 °F)
Material	
Housing	nickel plated brass; plastic components: PBT
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP67
Connection type	Device connector M12 x 1 , 4-pin

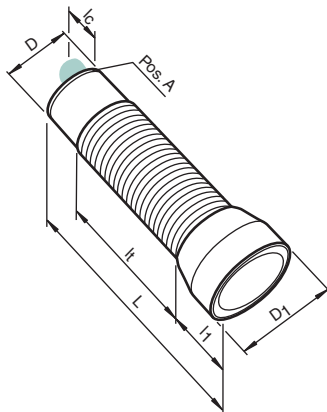
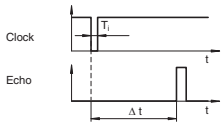


Properties

- Up to 6000 mm sensing range versions
- DC, clock input / echo output
- Requires external controller / amplifier
- Ø30 mm cylindrical housing
- Connector version

Function

The sensing range is determined in the downstream evaluation electronics such as PLC modules or other existing evaluation units.
The object distance in pulse-echo mode is obtained from the echo time Δt . The emission of an ultrasonic pulse starts simultaneously with the falling slope of the clock input signal.



Model Number

		UB500-30GM-H3-V1	UB2000-30GM-H3-V1	UB4000-30GM-H3-V1	UB6000-30GM-H3-V1
Sensing range	30 ... 500 mm	●			
	80 ... 2000 mm		●		
	200 ... 4000 mm			●	
	350 ... 6000 mm				●
Transducer frequency	approx. 380 kHz	●			
	approx. 180 kHz		●		
	approx. 85 kHz			●	
	approx. 65 kHz				●

Approvals and Certificates

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

Dimensions

Length L [mm]	80	95	100
Diameter D [mm]	30		
Transducer diameter D ₁ [mm]	30	40	74
Transducer length l ₁ [mm]	0	25	32,5
Thread length l _i [mm]	60	49	47,5
Connector area l _c [mm]	10		

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

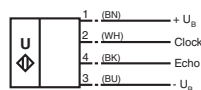
BF 30	Mounting flange, 30 mm
BF 30-F	Mounting flange with dead stop, 30 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
UVW90-M30	Ultrasonic deflector (only UB500... and UB2000...)
UVW90-K30	Ultrasonic deflector (only UB500... and UB2000...)
V1-G-2M-PVC	Cable socket, M12, 4-pin, PVC cable
V1-W-2M-PVC	Cable socket, M12, 4-pin, PVC cable

Electrical Connection

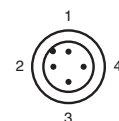


UB2000-30GM-H3-V1
UB4000-30GM-H3-V1
UB500-30GM-H3-V1
UB6000-30GM-H3-V1

Standard symbol/Connection:



2 = Emitter pulse input
4 = Echo propagation time output
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)



Properties

- Ø30 mm housing
- Powerful material detection
- Fast response
- DC, 3 switching outputs
- Cable version

Your Benefit

- Short-barrel design
- Maximum possible material burn-through power
- Excellent for thick plastics and cardboard
- One sensor identifies zero-, single- and double-sheets

Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

Model Number	UDC-30GM-085-3E3
Sensing range	50 ... 150 mm , optimal distance: 80 mm
Transducer frequency	85 kHz
Operating voltage	18 ... 30 V DC , ripple 10 % _{SS}
No-load supply current	< 200 mA
Output type	3 switch outputs PNP, NC
Rated operational current	3 x 100 mA , short-circuit/overload protected
Switch-on delay	approx. 30 ms
Switch-off delay	approx. 30 ms
Pulse extension	min. 120 ms programmable
Input type	Function input
LED green	Display: single-layer material detected
LED yellow	Display: no material (air)
LED red	Display: 2-layer or multi-layer material detected
Ambient temperature	0 ... 50 °C (32 ... 122 °F)
Material	
Housing	nickel plated brass; plastic components: PBT
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Protection degree	IP65
Connection type	cable PVC , 2 m

Approvals and Certificates

UL approval	cULus Listed, General Purpose, Class 2 Power Source
CSA approval	cCSAus Listed, General Purpose, Class 2 Power Source

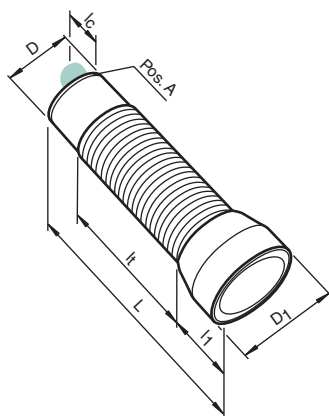
Dimensions

Length L [mm]	88 / 52
Diameter D [mm]	30
Transducer diameter D ₁ [mm]	40
Transducer length l ₁ [mm]	25
Thread length l _t [mm]	41 / 27
Connector area l _c [mm]	0
LED position	Pos. C

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

MH-UDB02	Mounting bracket for double sheet metal monitor
UDB-Cable-2M	Extension cable
UDB-Cable-1M	Extension cable

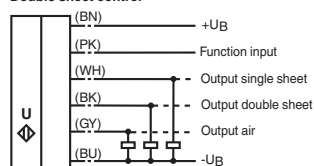


Electrical Connection



UDC-30GM-085-3E3

Standard symbol/Connection:
Double sheet control



Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	MH-UDB01
Material	Stainless steel
Description	Rotatable mounting bracket with angle scale for ultrasonic double sheet control.

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	M-105
Material	PTFE
Description	Universal mounting bracket for cylindrical sensors with ø 30 mm and a thread that extends to the front end of the sensor (UB/UC300, -500, and -2000).

- Secure fastening
- Easy installation
- Robust design
- Resistant to chemicals

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	PA-02
Material	PVC
Description	Mounting flange for all square-shaped sensors in the FP series

- Secure fastening
- Easy installation
- Robust design

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Common data	
Material	PA
Description	Plastic nuts with centering ring for vibration-free mounting of cylindrical sensors. These plastic nuts must be used in applications where a sensor is affixed at the front third of the housing, and operated at temperatures < 0 °C.

Model number	M12K-VE	M18K-VE	M30K-VE
For sensor diameter	12 mm		
	18 mm		
	30 mm		

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Common data

Material	PMMA
Description	Ultrasonic deviation reflector for cylindrical ultrasonic sensors. The ultrasonic deviation reflector has an opening across the entire width at the lower end of the inclined position. Any falling dust particles cannot collect in the ultrasonic deviation reflector. This ensures ongoing operation even in dusty environments.

Model number

For sensors from the series	-18GM	UVW90-K18	UVW90-K30
		●	●
	-30GM		●

- Clamp mounting
- 90° sound deflection for difficult mounting conditions
- Universal mounting position

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	UVW90-M12
Material	Stainless steel
Description	Ultrasonic deviation reflector for cylindrical ultrasonic sensors in the -12GM Series.

- Suitable for universal mounting
- 90° sound deflection for difficult mounting conditions
- Universal mounting position

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	UVW90-M30
Material	Stainless steel
Description	Focusing ultrasonic deviation reflector for cylindrical ultrasonic sensors in the -30GM series.

- Suitable for universal mounting
- 90° sound deflection for difficult mounting conditions
- Universal mounting position
- Ultrasonic focusing effect
- Increase in detection range (through focus)
 - approx. 40% with UB/UC500 (measurement L = 10 mm)
 - approx. 20% with UB/UC2000 (measurement L = 35 mm +/- 5 mm)

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



- For LUC4T-type ultrasonic sensors
- 8 mm connector
- Swivel-free single-hole mounting

Model number	UC-30GM-TEMP
Function	External temperature probe
Description	As an alternative to the supplied temperature probe, the UC-30GM-TEMP external temperature probe can be connected to LUC4T-type ultrasonic sensors. The UC-30GM-TEMP temperature probe can be used to detect the ambient temperature of the measurement path, irrespective of the sensor mounting conditions, with a view to minimizing temperature effects to the greatest extent possible.

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



- For LUC4T-type ultrasonic fill level sensors
- 8 mm connector.
- Single-hole mounting in thread: G $\frac{1}{2}$ A (LUC4-Z30-G2V) ½NPT (LUC4-Z30-N2V).

Common data	
Function	External temperature probe
Description	As an alternative to the supplied temperature probe, this external temperature probe can be connected to LUC4T-type ultrasonic sensors. The LUC4-Z30 sensor can be used to detect the ambient temperature of the measurement path, in line with the process and irrespective of the mounting conditions of the sensor, with a view to minimizing temperature effects to the greatest extent possible.

Model number		LUC4-Z30-G2V	LUC4-Z30-N2V
Thread	G $\frac{1}{2}$ A	●	
	½NPT		●

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	USB-0.8M-PVC ABG-SUBD9
Function	USB/RS232 interface adapter
Description	Interface adapter USB-0.8M-PVC ABG-SUBD9 provides an RS232 interface at a free USB port. It can be connected to a free USB port on the computer either directly or using the 800 mm USB extension cable provided. The available interface cable can then be connected to the 9-pin SUB-D plug in the usual way.

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	UC-F43-R2
Function	RS232 interface
Description	The device can be switched between the V17 cable connection box and the V17 plug connection at the sensor for the Teach-in process. The parameterized functions are retained after the programming unit has been removed and/or the operating voltage has been turned off at the sensor.

- For sensors UC300-F43-2KIR2-V17 and UC2000-F43-2KIR2-V17.
- Simple intermediate switching in the sensor connection line.

Technical Data

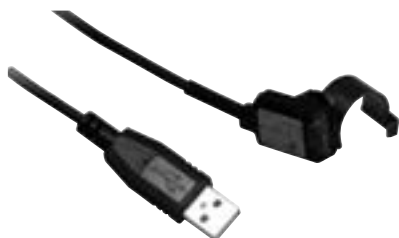
For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	UC-30GM-R2
Function	Interface cable
Description	Interface cable UC-30GM-R2 enables type UC...-30GM-...R2-V15 ultrasonic sensors to be parameterized using service program ULTRA 2001. The cable establishes a connection between the PC's internal RS232 interface and the connector of the temperature/programming plug at the sensor.

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	UC-18/30GM-IR
Function	Interface cable

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	UC-30GM-PROG
Function	Extension cable
Description	Extension cable UC-30GM-PROG enables UC...-30GM-... and LUC-type ultrasonic sensors to be taught in, even at installation locations that are difficult to access. The sensor end of the extension cable is connected to the socket for the temperature plug at the sensor. Sensors can be programmed at the other end of the cable using the temperature plug.

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Common data	
Connectors	M8 x 1, male connector, 3-pin and M8 x 1, female connector, 3-pin
Cable material	PUR
Cable color	black
Description	Extension cable for ultrasonic double sheet monitors

Model number

Cable length	1 m
	2 m

UDB-Cable-1M

UDB-Cable-2M

Issue date: 26.08.2014

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	3RX4000-PF
Function	PC interface
Description	Using this PC interface and the corresponding software, you can adapt ultrasonic sensors of a specific series to the requirements of your application. It is also possible to parameterize several sensors identically. The start and end of a sensor's detection range can be stored and copied to other sensors at the press of a button.

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	UB-PROG2
Function	Programming unit
Description	The device can be switched between the V15 cable connection box and the V15 plug connection at the sensor for the Teach-in process. The trip points/measurement window and the output function are taught in using sensors A1 and A2 in accordance with the diagram provided. The taught in trip points and functions are retained after the programming unit has been removed and/or the operating voltage has been turned off at the sensor.

- Simple Teach-in of trip points A1/ A2 or the measurement window.
- Easy selection of output function: window operation, NO contact/NC contact function. One trip point, NO contact/NC contact function. Monitoring of detection range.

For the following types of ultrasonic sensors:

UB300			
UB400	-12GM		
UB500	-18GM40	-E4	
UB800	-18GM75	-E5	
UB1000	-30GM	-I	-V15
UB2000	-F42(S)	-U	
UB4000	-F54		
UB6000			

... where the Teach-in input is at pin 2.

Technical Data

For detailed data and product description, see the data sheet at www.pepperl-fuchs.com



Model number	UB-PROG3
Function	Programming unit
Description	The unit can be switched between the V15 cable connection box and the V15 plug connection at the sensor for the Teach-in process. The trip points/measurement window and the output function are taught in using sensors A1 and A2 in accordance with the diagram provided. The taught in trip points and functions are retained after the programming unit has been removed and/or the operating voltage has been turned off at the sensor.

- Simple Teach-in of trip points A1/ A2 or the measurement window.
- Easy selection of output function: window operation, NO contact/NC contact function. One trip point, NO contact/NC contact function. Monitoring of detection range.

For the following types of ultrasonic sensors:

		-E01	
UB500	-18GM75	-E23	-V15
UB1000		-E6	
		-E7	

... where the Teach-in input is at pin 2.