

Proximity Switches – Inductive — continued

Omron Sensor Selection Guide

OMRON



- Omron sensor guide focuses on problem solving capabilities
- Illustrated examples of solutions
- Application drawings supported by a comprehensive technical guide

SEN390

Order Code
312-3868

Price Each

Proximity Switches – Ultrasonic

Compact, Switch Output

Adjustable Switch Point and Time Delay

ASSEMBLY
EUROPE

Body H = 46, W = 18, D = 30,
Overall W = 40, Cable L = 1.5m
Mounting: Thread = M18,
2 4.1 dia thru-holes, FC = 20

- User adjustment of delay time
- User adjustment of range 100 to 500 mm
- Housing protected to **IP67**
- Small compact design
- Easy mounting options:- M4 thru-holes or M18 thread
- Switch status LED
- Detection of small poorly reflecting objects
- Detection unaffected by dust, waterdrops, strong sunlight etc.
- Distance measurement unaffected by target material
- Input protected against power reversal

Versatile ultrasonic proximity switch in compact polyamide (glass fibre filled) case for object detection regardless of size, colour and target material.

Operating voltage V_s	12 to 24V dc
Scanning range	100 to 500 mm
Switching point	Adjustable 100 to 500 mm
Time delay	Adjustable 0.2 to 7 secs
Resolution	± 1.6 mm typ.
Detection sensitivity	100% @ $V_s = 24V$, 80 to 90% @ $V_s = 15V$
Carrier frequency	175kHz
Output	PNP or NPN open collector 100mA, short circuit proof
Operating temperature	-15°C to +60°C (no ice)

SEN317

Output	Mfrs. List No.	Order Code	1+	5+	10+	25+
PNP	UPX500 PVPS 24	732-801				
NPN	UPX500 PVNS 24	732-813				

M18, Stainless Steel, Switch Output

Honeywell



Thread = M18,
L = 85 (overall),
62 (thread)

- Suitable for practically all targets of any colour or material
- Stainless steel housing
- 215kHz carrier frequency gives high immunity to interference
- Synchronising or inhibit input for simultaneous use of several sensors
- LED indication of output has intensity proportional to signal strength

- Switching point adjustable by built-in potentiometer
- Short circuit protection
- **IP65** sealing

Operating Voltage	24V dc $\pm 20\%$
Sensing range	100 to 500mm
Output	PNP or NPN normally open, 100mA/30Vmax
Switching Frequency	16Hz (min)
Repeatability	0.3% of measured distance or ± 0.5 mm (greater value)
Operating temperature	0°C to +70°C

Mfrs. List No. 945L4Y-2D-001 = 254-540, 945L4Y-2D-002 = 254-551

SEN106X

Output	Order Code	1+	5+	10+
PNP	254-540			
NPN	254-551			

M30, Switch Output

With 2 Teachable Switch Points

PEPPERL+FUCHS



UB500, UB2000: L = 94, Head dia. = M30,
UB4000: L = 109, Head dia. = 40,
UB5000: L = 115, Head dia. = 74, All types:
Thread size M30 1.5

- One programmable switch output
- Nickel-plated brass **IP65** housing
- Tamper-proof programming

The sensor switch points can be set by applying the supply voltage to the teach inputs or programming unit.

Operating voltage	20 to 30V dc	Temperature range	-25°C to +70°C
Switch outputs	200mA (PNP)	Response time	480ms
LED indicators	Green = Power on, Red = Fault, Yellow = Switch condition	Hysteresis	$\leq 1\%$ of operating distance
		Reproducibility	$\leq 1\%$

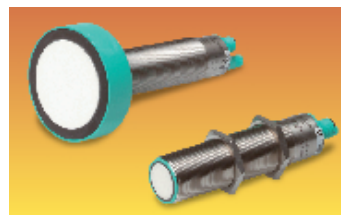
SEN305

Sensing Range (mm)	Mfrs. List No.	Order Code	1+	5+	10+
60 to 500	UB500-30GM-E2-V15	.709-7931			
200 to 2000	UB2000-30GM-E2-V15	.709-7943			
500 to 4000	UB4000-30GM-E2-V15	.709-7955			
800 to 6000	UB6000-30GM-E2-V15	.709-7967			
Programming Unit	UB-PROG2	.709-7979			

M30, Analogue Output, Stainless Steel

PEPPERL+FUCHS

4–20mA/0–10V, Temperature Compensated



UC500, UC2000: L = 113, Head dia. = 113, UC4000: L = 128, Head dia. = 40,
UC5000: L = 137, Head dia. = 75, All types: Thread size M30 1.5

- User-defined analogue outputs (current or voltage)
- Stainless steel **IP65** housing
- Temperature compensation

The sensor has a four position insert to program the limit values of the analogue output and also to compensate for temperature drift.

Operating voltage	10 to 30V dc	LED indicators	Power on
Repeatability	0.1% of full scale	Dual-Green	Object not detected/disturbance
Linearity	0.1% of full scale	Dual-Red	Limit value 1
Response time	35ms	Yellow	Limit Value 2
Current output	4 to 20mA	Yellow	
Voltage output	0 to 10V		

SEN306

Sensing Range (mm)	Mfrs. List No.	Order Code	1+	5+	10+
60 to 500	UC500-30GM-IU-V1	.709-8029			
200 to 2000	UC2000-30GM-IU-V1	.709-8030			
500 to 4000	UC4000-30GM-IU-V1	.709-8042			
800 to 6000	UC6000-30GM-IU-V1	.709-8054			

Photoswitches – Optical Proximity

Diffuse with Background Suppression, Polarised Reflex
Miniature Prewired – W4 SeriesSICK
opto-electronic

- Miniature glass-fibre reinforced housing with metal reinforced fixing holes
- Insensitive to external light sources
- LED signal strength indicator
- Diffuse type has adjustable scanning range 4 to 130mm with background suppression
- Polarised reflex type suitable for glossy object detection
- **IP67** protection

H = 32 (body), W = 16, D = 12, Cable L = 2m,
Fixing centres = 9 (M3)

Sensing distance	Diffuse = 4 to 130, Reflex = 2.8m
Supply voltage	10 – 30V dc
Output	PNP or NPN transistor, 100mA max.
Switching mode	Diffuse = light switching, Reflex = dark switching
Switching frequency	1000 per sec.

SEN337

Output	Mfrs. List No.	Order Code	1+	5+	10+
Diffuse with Background Suppression					
PNP	WT4-2P132	.722-9355			
NPN	WT4-2N132	.722-9367			
Polarised Reflex					
PNP	WL4-2F132	.722-9379			
NPN	WL4-2E132	.722-9380			