

## Distance sensors

# OM70-P1500.HV1500.EK

Share

Article no.: 11216514

### Distance sensors - high performance

- Adjustable reference distance (zero point position)
- Intuitive limitation of the measuring range
- Configurable switching output
- Selectable filters and trigger modes
- Additional data such as signal quality on request
- Export and import function for parameter sets



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## Technical data

### general data

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type	distance measuring
version	OM70 laser point basic
measuring distance Sd	150 ... 1500 mm
measuring range Mr	1350 mm
sweet spot	1500 mm
adjustment	Webserver, Ethernet TCP/IP
power on indication	LED green
output indicator	LED yellow / LED red
ethernet link indication	LED blue
resolution	13 ... 125 µm
repeat accuracy	3 ... 63 µm
linearity error	± 0,32 % Mr
light source	pulsed red laser diode
wave length	660 nm
laser class	2
beam type	point
temperature drift	0,100 % So/K
hysteresis digital output	adjustable

## electrical data

response delay	0,8 ms
measuring frequency	2000 Hz
voltage supply range +Vs	15 ... 28 VDC
current consumption max. (no load)	75 mA
output circuit	analog and digital
output signal	4 ... 20 mA / 2 ... 10 mA / 0 ... 10 VDC / 0 ... 5 VDC
output current	< 100 mA
switching output	push-pull
short circuit protection	yes
reverse polarity protection	yes, Vs to GND

interface	Ethernet TCP/IP
protocol	Profinet, Modbus TCP, OPC UA, UDP streaming
webserver	yes
mechanical data	

width / diameter	26 mm
height / length	74 mm
depth	55 mm
type	rectangular, front view
housing material	aluminum
front (optics)	glass
connection types	connector M12 8 pin & M12 4 pin
weight	135 g

ambient conditions	
ambient light immunity	< 35 kLux
operating temperature	-10 ... +50 °C
protection class	IP 67
storage temperature	-20 ... +60 °C
vibration (sinusoidal)	IEC 60068-2-6:2008
	1 mm p-p at f = 10 - 55 Hz, duration 5 min per axis
	30 min endurance at f = 55 Hz per axis
shock (semi-sinusoidal)	IEC 60068-2-27:2009
	30 g / 11 ms, 6 jolts per axis and direction

Downloads

Data sheet – OM70-P1500.HV1500.EK	<a href="#">DE</a> (PDF   2 MB)
	<a href="#">EN</a> (PDF   2 MB)
	<a href="#">FR</a> (PDF   2 MB)
	<a href="#">ZH</a> (PDF   2 MB)

MAL

m_om70p1500hv1500ek.pdf	<a href="#">EN/DE/FR</a> (PDF   556 KB)
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Installation and operating instructions

BA OM70 Ethernet PL distance	<a href="#">DE</a> (PDF   3 MB)
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BA OM70 Ethernet PL distance	<a href="#">EN</a> (PDF   3 MB)
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Certificates / approvals

DoC / CoC - OM70	<a href="#">DE/EN/FR</a> (PDF   210 KB)
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Software

Software – GSDML product description file OM70-LPx.x.EK	<a href="#">(ZIP   9 KB)</a>
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3D CAD

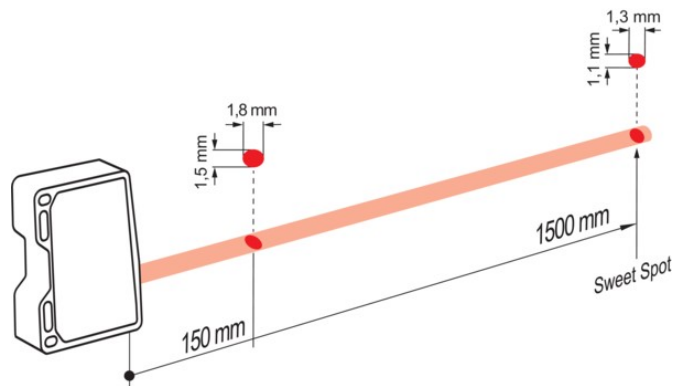
OM70 Ethernet / IGES / STEP / PARASOLIDS	<a href="#">Download igs</a> (ZIP   492 KB)
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	<a href="#">Download stp</a> (ZIP   269 KB)
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	<a href="#">Download x_t</a> (ZIP   268 KB)
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Diagrams

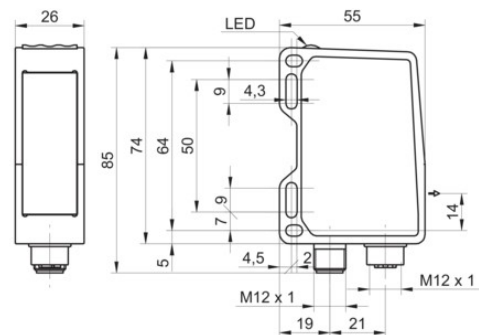
beam characteristic (typically)



(PNG | 134 KB)

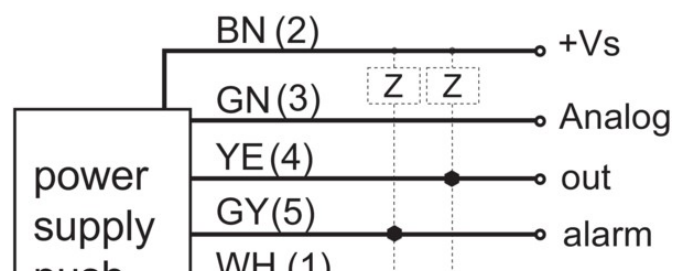
## Drawings

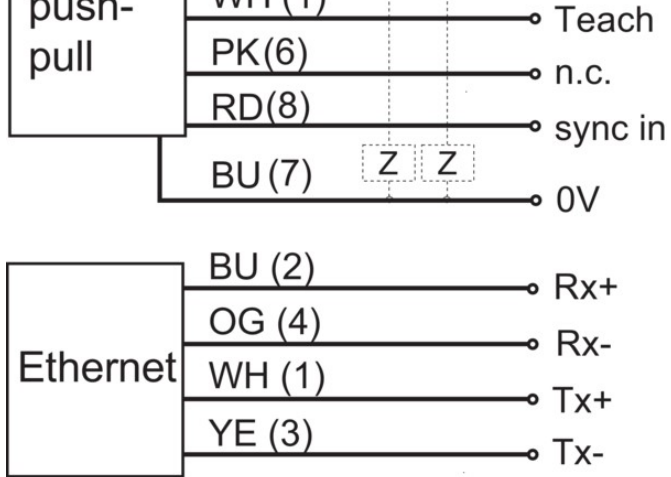
dimension drawing



(PNG | 95 KB)

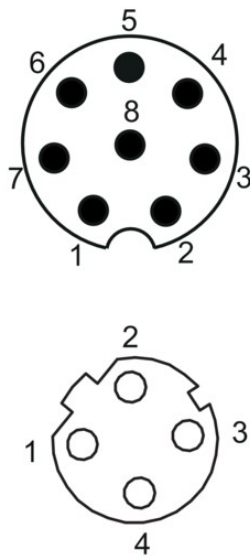
connection diagram





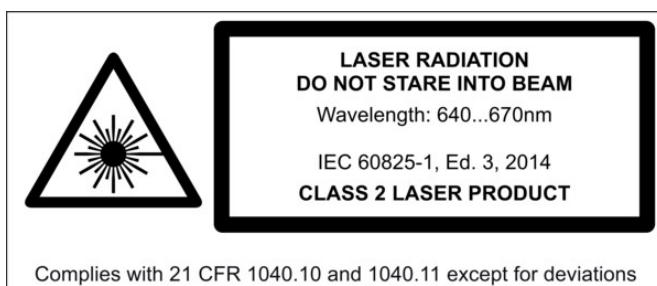
(PNG | 273 KB)

pin assignment



(PNG | 110 KB)

laser warning



(PNG | 174 KB)

## Accessories

### peripherals

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#### 11084376

Test unit for sensors analog & digital, Peripherals

Article no.: 11084376

- Output via display (V or mA) or LED (PNP/NPN)
- Teach-in of sensors with integrated Teach- button
- Connection for plug in power supply (available as accessory)



#### 11087165

Test unit for sensors, Peripherals

Article no.: 11087165

- Input 90-260 VAC
- Output 24 V/0,75 A
- Interchangeable plug-Type A, C, G and I

### mounting accessories

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#### 11120705

Mounting bracket X7 90° for PosCon and OM70, incl. accessories, Mounting accessories

Article no.: 11120705

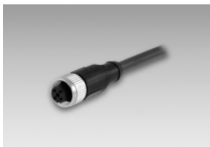
- Fitting for PosCon

and  
OM70

- Mounting  
at an  
angle of  
90°
- Bracket  
and  
mounting  
hardware  
incl. Torx  
wrench

## connectors and mating connectors

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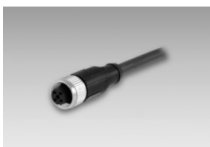


### ESG 34FH0200G

Connector M12, 8 pin, straight, 2 m, shielded, Connectors and mating connectors

Article no.: 10127844

- connecting  
cable for  
connector  
type M12
- 2 m
- shielded
- suitable  
for flexible  
cable  
carriers

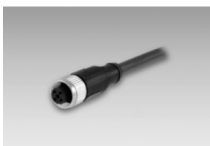


### ESG 34FH0500G

Connector M12, 8 pin, straight, 5 m, shielded, Connectors and mating connectors

Article no.: 10129332

- connecting  
cable for  
connector  
type M12
- 5 m
- shielded
- suitable  
for flexible  
cable  
carriers



### ESG 34FH1000G

Connector M12, 8 pin, straight, 10 m, shielded, Connectors and mating connectors

Article no.: 10129333

- connecting  
cable for  
connector  
type M12
- 10 m





### ESW 33FH0200G

Connector M12, 8 pin, angular, 2 m, shielded, Connectors and mating connectors

Article no.: 11053961

- shielded
- suitable for flexible cable carriers

- connecting cable for connector type M12

- 2 m
- shielded
- suitable for flexible cable carriers



### ESW 33FH0500G

Connector M12, 8 pin, angular, 5 m, shielded, Connectors and mating connectors

Article no.: 11053962

- connecting cable for connector type M12

- 5 m
- shielded
- suitable for flexible cable carriers



### ESW 33FH1000G

Connector M12, 8 pin, angular, 10 m, shielded, Connectors and mating connectors

Article no.: 10170054

- connecting cable for connector type M12

- 10 m
- shielded
- suitable for flexible cable carriers



### KSG 34A/KSG45AP0200G/E

Ethernet cable; connector M12, straight to RJ45 mating connector, 4-pin, 2 m, shielded, Connection cables

Article no.: 11048502

- extension cord for connector female M12



### KSG 34A/KSG45AP0500G/E

Ethernet cable; connector M12, straight to RJ45 mating connector, 4-pin, 5 m, shielded, Connection cables

Article no.: 10165276

- 2 m
- shielded

- extension cord for connector female M12

- 5 m
- shielded



### KSG 34A/KSG45AP1000G/E

Ethernet cable; connector M12, straight to RJ45 mating connector, 4-pin, 10 m, shielded, Connection cables

Article no.: 11051929

- extension cord for connector female M12

- 10 m
- shielded