

▶ optical sensor

PRODUCT: devices with thread: brass, stainless steel
 round devices: stainless steel
**through-beam, retro-reflective,
 diffuse reflection**

DESIGN:

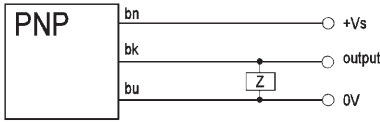
08	M8x0.75
10	Ø 10mm
12	M12x1
18	M18x1
30	M30x1.5



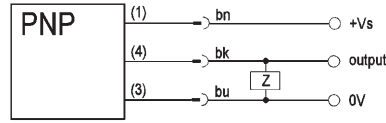
- housing: stainless steel or brass, nickel-plated
- status display by LED
- integrated amplifier
- DC devices have short-circuit and reverse polarity protection
- devices with thread according to EURONORM
- high sampling frequency and sensing range
- connection with cable, M8- or M12-connector
- 2 year warranty!
- delivery in storage box

Technical Data	DC
current consump. or leakage current	30mA
voltage drop (max. load)	< 2V
operating voltage	see list of articles
current-carrying capacity	see list of articles
sampling frequency	see list of articles
nominal sensing range S_n	see list of articles
real sensing range S_r	$S_n \pm 10\%$
hysteresis (dif. reflection)	5% to 15% of S_n
system of protection	IP65 to EN 60529
ambient temperature	-20°C to +60°C
connection	2m cable, M8- or M12-connector
transmitting element	infrared LED

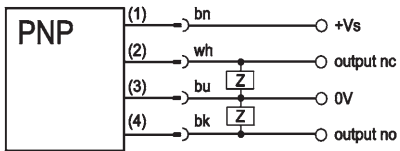
connection cable



M8-connector



connection M12-connector



wire colours: bn = brown (1), wh = white(2), bu = blue (3), bk = black(4)

Programming: design 18, light-on and dark-on mode through connection of terminal 2 with +Vs or 0V!

REFERENCE CODE

		output		
for example:	OT 12 (design)	0	1	00 (connection: e.g. cable, connector)
		↓	↓	
	pnP short-circuit protection	0	0	analogue
	npN short-circuit protection	1	1	make contact (no)
	pnP no short-circuit protection	2	2	break contact (nc)
	npN no short-circuit protection	3	3	no/nc programmable
	AC	4	4	exclusive-OR
	AC/DC	5	5	pnP/npN
	connection to amplifier	6	6	--
	intrinsically safe	7	7	with added exit (alarm)
	--	8	8	relay
	--	9	9	relay (no/nc)

Fig. 1 cable

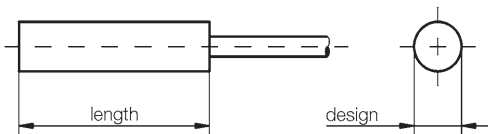
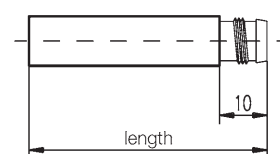


Fig. 2 connector



For design and length please refer to list of articles

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PRODUCT: threaded and round devices: brass, stainless steel

article-no.	design	description	comment	length	housing	voltage	output	current	sn	connection	fig.
OS08000x	M8x0.75	transmitter		59	brass, n-pltd	10-30V DC				cable	1
OE080100	M8x0.75	receiver	200Hz	59	brass, n-pltd	10-30V DC	pnp,no	100mA	2500	cable	1
OS080070	M8x0.75	transmitter		76	brass, n-pltd	10-30V DC				M8-connector	2
OE080170	M8x0.75	receiver	200Hz	76	brass, n-pltd	10-30V DC	pnp,no	100mA	2500	M8-connector	2
OT080100	M8x0.75	dif. reflection	250Hz	50	brass, n-pltd	10-30V DC	pnp,no	100mA	40	cable	1
OT080105	M8x0.75	dif. reflection	200Hz	56	brass, n-pltd	10-30V DC	pnp,no	100mA	80	cable	1
OT080170	M8x0.75	dif. reflection	200Hz	73	brass, n-pltd	10-30V DC	pnp,no	100mA	40	M8-connector	2
OT080175	M8x0.75	dif. reflection	200Hz	73	brass, n-pltd	10-30V DC	pnp,no	100mA	80	M8-connector	2
OS100001	∅ 10mm	transmitter		60	stainless steel	10-30V DC				5m cable	1
OE100101	∅ 10mm	receiver	50Hz	60	stainless steel	10-30V DC	pnp,no	100mA	1000	5m cable	1
OS120001	M12x1	transmitter		60	stainless steel	10-30V DC				5m cable	1
OE120101	M12x1	receiver	50Hz	60	stainless steel	10-30V DC	pnp,no	100mA	1000	5m cable	1
OE120105	M12x1	receiver	50Hz	60	stainless steel	10-30V DC	pnp,no	100mA	6000	5m cable	1
OS120020	M12x1	transmitter		70	stainless steel	10-30V DC				M12-connector	2
OE120120	M12x1	receiver	50Hz	70	stainless steel	10-30V DC	pnp,no	100mA	1000	M12-connector	2
OE120125	M12x1	receiver	50Hz	70	stainless steel	10-30V DC	pnp,no	100mA	6000	M12-connector	2
OR120100	M12x1	retro-reflective	200Hz	78	brass, n-pltd	10-30V DC	pnp,no	200mA	2000	cable	1
OT120120	M12x1	dif. reflection	pot 200Hz	80	brass, n-pltd	10-30V DC	pnp,no	200mA	30-200	M12-connector	2
OS180003	M18x1	transmitter		60	brass, n-pltd	10-30V DC				cable	1
OE180303	M18x1	receiver	pot 500Hz	60	brass, n-pltd	10-30V DC	pnp,no/nc	100mA	10m	cable	1
OS180023	M18x1	transmitter		70	brass, n-pltd	10-30V DC				M12-connector	2
OE180323	M18x1	receiver	poti 500Hz	70	brass, n-pltd	10-30V DC	pnp,no/nc	100mA	10m	M12-conn4pol	2
OR180303	M18x1	retro-reflective	redl.,pot 500Hz	60	brass, n-pltd	10-30V DC	pnp,no/nc	100mA	3000	cable	1
OR180323	M18x1	retro-reflective	redl.,pot 500Hz	70	brass, n-pltd	10-30V DC	pnp,no/nc	100mA	3000	M12-conn4pol	2
OT180303	M18x1	dif. reflection	pot 500Hz	60	brass, n-pltd	10-30V DC	pnp,no/nc	100mA	200	cable	1
OT180323	M18x1	dif. reflection	pot 500Hz	70	brass, n-pltd	10-30V DC	pnp,no/nc	100mA	200	M12-conn4pol	2
OT300400	M30x1.5	dif. reflection	pot 200Hz	65	brass, n-pltd	10-40V DC	pnp,no/nc	400mA	1500	cable	1
OT300420	M30x1.5	dif. reflection	pot 200Hz	65	brass, n-pltd	10-40V DC	pnp,no/nc	400mA	1500	M12-cabcon4pol	2

The list of articles contains the standard DC-(pnp) versions only. Kindly request the availability of other output functions.

For reflectors and reflective films: see optical sensor accessories!

We will be pleased to supply the matching cable socket for your devices with connector. Please refer to the list in chapter 14 of our catalogue, data sheet “**ipf-SENSORFLEX®** cable sockets”.

Warning: Never use these devices in applications where the safety of a person depends on their functionality.