



Sd = 2 ... 5 mm



IWRM 18 Sd = 2 ... 5 mm

Inductive distance measuring sensors *AlphaProx*

general data

mounting type	shielded
measuring speed	< 1 mm / ms
repeatability	< 0,02 mm
temperature coefficient	1 µm / (K mm)

electrical data

voltage supply range +Vs	15 ... 30 VDC
residual output ripple	< 0,5 % Vs
short circuit protection	yes
reverse polarity protection	yes

voltage output

current consumption max.	20 mA
output signal	1 ... 9 VDC

current output

current consumption max.	35 mA
output signal	4 ... 20 mA
load resistance +Vs min.	< 500 Ohm
load resistance +Vs max.	< 1000 Ohm

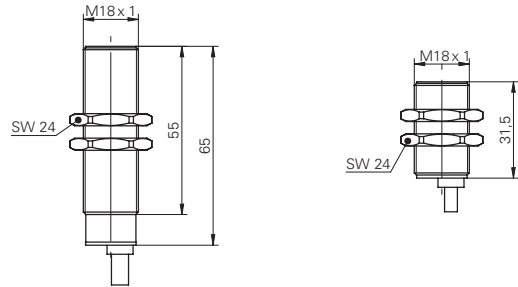
mechanical data

type	cylindrical threaded
housing material	brass nickel plated
dimension	18 mm
connection types	cable

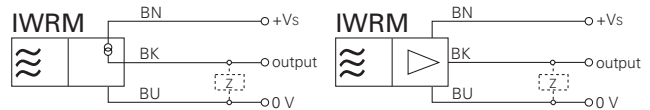
ambient conditions

operating temperature	0 ... +60 °C
protection class	IP 67

dimension drawings



connection diagrams



order reference	measuring distance Sd	reference distance	output circuit	housing length	linearity error	load resistance
IWRM 18I9501	2 ... 5 mm	3,25 ... 3,75 mm	current output	65 mm	± 100 µm	-
IWRM 18I9502	2 ... 4 mm	2,8 ... 3,2 mm	current output	65 mm	± 80 µm	-
IWRM 18I9511	2 ... 5 mm	3,25 ... 3,75 mm	current output	31,5 mm	± 100 µm	500...1000 Ohm
IWRM 18U9501	2 ... 5 mm	3,25 ... 3,75 mm	voltage output	65 mm	± 100 µm	> 1000 Ohm
IWRM 18U9502	2 ... 4 mm	2,8 ... 3,2 mm	voltage output	65 mm	± 80 µm	> 1000 Ohm
IWRM 18U9511	2 ... 5 mm	3,25 ... 3,75 mm	voltage output	31,5 mm	± 100 µm	> 1000 Ohm
IWRM 18U9512	2 ... 4 mm	2,8 ... 3,2 mm	voltage output	31,5 mm	± 80 µm	> 1000 Ohm



Sd = 0 ... 8 mm



- Large measuring distance
- Short response time
- Extended immunity against electrical interference

general data

mounting type	quasi shielded
measuring distance Sd	0 ... 8 mm
resolution	< 0,005 mm (stat.) < 0,01 mm (dynam.)
repeatability	< 0,015 mm
linearity error	± 400 µm
temperature drift	± 5% (Full Scale)

electrical data

response time (factory characteristic)	< 2 ms
voltage supply range +Vs	15 ... 30 VDC
short circuit protection	yes
reverse polarity protection	yes

voltage output

current consumption max.	20 mA
output signal	0 ... 10 VDC
load resistance	> 1000 Ohm

current output

current consumption max.	40 mA
output signal	4 ... 20 mA
load resistance +Vs min.	< 330 Ohm
load resistance +Vs max.	< 1000 Ohm

mechanical data

type	cylindrical threaded
housing material	brass nickel plated
dimension	18 mm
housing length	60 mm
connection types	connector M12

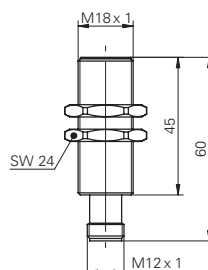
ambient conditions

operating temperature	-10 ... +70 °C
protection class	IP 67

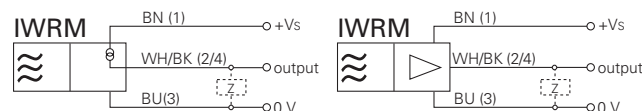
accessories

connectors	ES 14, ES 18, ESW 33S, ESG 34S
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dimension drawing



connection diagrams



order reference **output circuit**

IWRM 18I9704/S14	current output
IWRM 18U9704/S14	voltage output