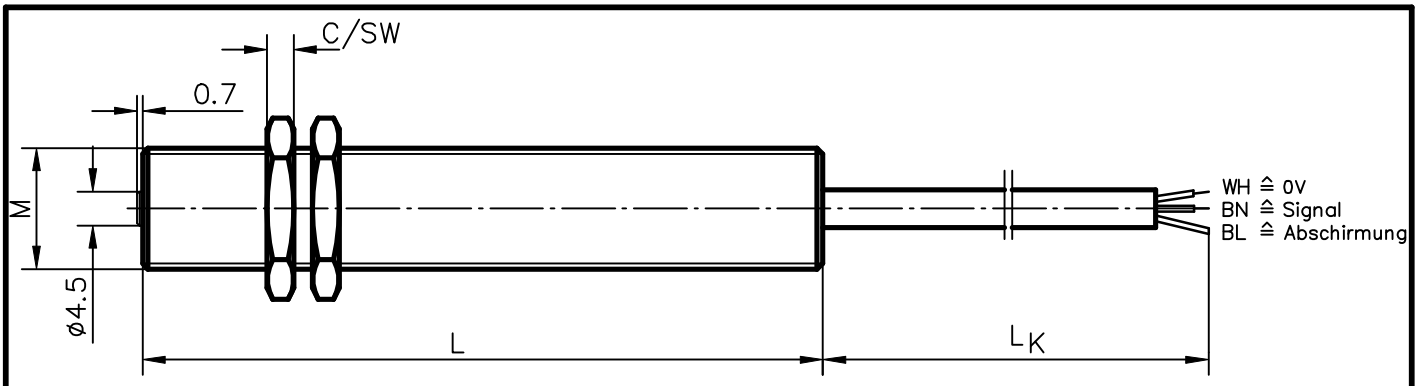


Typ	M	L	C	SW	L_K
FGL00161 Exi	M16x1	90	3,5	19	2m
FGL00163 Exi	M18x1,5	90	5	24	2m
FGL00166 Exi	M22x1	90	9	27	2m
FGL00169 Exi	5/8"–18	90	5	19	5m

Technical Data

Object of measurement: ferromagnetic gear wheels, punched disks, shafts with channels or something similar

Signal-electric Circuit: enclosure class intrinsically safety
EEx ib IIC, PTB 03 ATEX 2245
only for the connection with a certified intrinsically safe electric circuit with the following maximum values:
U_o = 7,8 V
P = 156 mW
or
(at U_o > 7,8 V)
I_K = 20 mA
The active internal inductivities and capacities are negligible small.
The signal-electric circuit is an electrical source too with the following maximum values:
U_o = 8,6 V
I_K = 10 mA
P = 62 mW
For the connection with passive, intrinsically safe material the following maximum values are valid:
ceiling outer inductivity: 28 mH
ceiling outer capacity: 400 nF
For the connection with active, intrinsically safe material, please take note of the rules for the interconnection of intrinsically safe electric circuits.

Signal frequency: $f = \frac{n \cdot z}{60}$ with n = speed in rpm
z = number of marks respectively teeth

Signal form: according to measured object, for gearwheels sinusoidal up to the voltage limit.

Signal voltage: dependent on module, air gap, peripheral speed and load resistor; by Zener diodes limited to approx. 16.5 V_{pp}.

For the connection with the time base counter type DA 72-173... Ex without auxiliary voltage the following is valid for the peripheral speed V beginning from the minimum module 2:

	$\frac{airgap}{mm}$	$\frac{V_{min}}{m/s}$
for FGL 0016. Exi	0,3	1,5
	0,5	3,0
	0,8	12,0
for FGL 0116. Exi	0,3	10,0

with V = $\frac{\pi \cdot M \cdot z \cdot n}{60} \cdot 10^{-3} \left[\frac{m}{s}\right]$

max. cable length: 300 m (dependent on the maximum signal frequency; has to be taken into consideration for the observation of the outer capacity)

Connection cable: 2 m LiYC11Y 2 x 0,25 mm² shielded cable covering blue (for oil resistant cable tail)

Housing: brass nickel-plated

Enclosure: IP 67 DIN 40050

Working temperature: -10 °C to +80°C

Storage temperature: -30 °C to +80°C

Weight: according to type 140..250 g

Mounting: variable

Accessories (option): cable LiYC11Y 2 x 0,25 mm² blue, shielded; Zener barriers adapted to the evaluation unit

Diese Zeichnung ist unser Eigentum. Weitergabe ist unzulässig.

CAD Nr. FGL00161

	Änderung	Tag	Name
e			
d			
c			
b	add technical data	02.08.12	Fischer
a	add technical data cover in front closed	26.04.12	Schmied

91	Tag	Name
Gez.	21.10.	HWü.
Gepr.	20.04.15	Schmied
Norm		

Dr. E. Horn GmbH & Co. KG
D–71116 Gaertringen

Z.–Nr. FGL0016. Exi

Maßstab 1:1

Benennung
Induktiver–Impulsaufnehmer
Inductive Pulse Sensor

Ersatz für

Ersetzt durch X Y