

## Installation Kit for frequency-control lifts WDGAK58E with end hollow shaft encoder



The following installation kits are available for fitting the encoder to a frequency controlled lift. Every installation kit consists:  
1 x Encoder, 1 x with 15 m ready-made shielded cable, 5 x shaft adapter

### Mechanical Data

Housing	
- Flange:	Aluminium
- Cap:	Aluminium, powder coated
- Torque Support:	
1. Spring plate Compensation:	Incl. 1 spring plate WDGDS10001 axial: $\pm 0.8$ mm radial: $\pm 0.2$ mm
Max. operating speed:	6000 rpm

### Hollow bore (blind)

- Material:	stainless steel
- Diameter:	10
- Permitted load on shaft end:	max. 80 N radial max. 60 N axial
- Starting torque:	approx. 1.6 Ncm at ambient temperature
- Attachment:	permanently attached clamping ring

### Bearings

- Type:	2 precision ball bearings
- Service life:	1x 10 <sup>9</sup> revs. at 100 % shaft load 1x 10 <sup>10</sup> revs. at 40 % shaft load 1x 10 <sup>11</sup> revs. at 20 % shaft load approx. 220 g

### Weight:

Connections:	SH8: radial connector, 8 pin
Protection rating:	IP65

### (EN 60529)

Operating temperature:	-20 °C up to +80 °C
Storage temperature:	-30 °C up to +80 °C

### Machinery Directive: basic data safety integrity level

MTTF <sub>a</sub> :	200 a
Mission time (T <sub>M</sub> ):	25 a
Nominale service life (L <sub>10h</sub> ):	1x 10 <sup>11</sup> revs. at 6000 rpm and 20 % rated shaft load
Diagnostic coverage (DC):	0 %

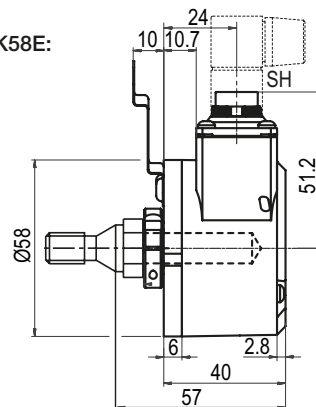
Encoder-Order No.:	WDGI58E-YYYY-ABN-R24-SH8 - YYYY: with 1024, 2048, 4096 PPR - 6 channels, A, B, zero marker pulse N + Inv. - R24: 10 VDC - 30 VDC HTL, , inv Power supply with inv. output - SH8: radial connector, 8 pin
	WDGI58E-YYYY-ABN-R05-SH8 - YYYY: with 1024, 2048, 4096 PPR - 6 channels, A, B, zero marker pulse N + Inv. - 5 VDC TTL inv Power supply with inv. output - SH8: radial connector, 8 pin

YYYY: Please specify required PPR

- Easy installation on all motor shafts
- Flexible attachment possibilities
- Space-saving
- TTL, HTL output
- Threads: M8, M10, M12, M16, M20

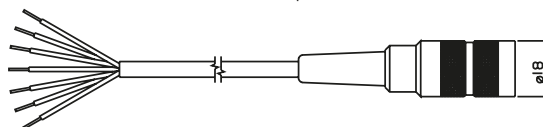
[www.wachendorff-automation.com/wdgak58e](http://www.wachendorff-automation.com/wdgak58e)

### Installation Kit WDGAK58E:



### Cable:

The cable is 15 m in length and is shielded, however the shield is not connected to the connector housing at TTL/HTL. With a mated connector, the encoder meets protection class IP40.



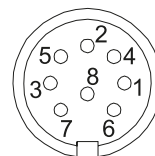
The cable has a connection as follows:

Function	Colour
Positive	brown
Negative	white
A	green
A inv.	red
B	yellow
B inv.	black
N	gray
N inv.	violet
Shield:	cable braiding

Order No: KD84015

### Pin identification SH8:

Function	PIN
Positive	2
Negative	1
A	3
A inv.	6
B	4
B inv.	7
N	5
N inv.	8



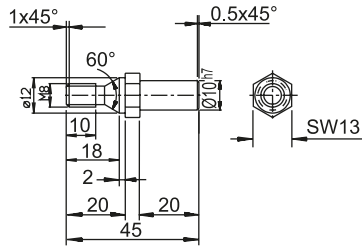
The view of the soldered side of the connector connector corresponds to the view of the pin arrangement on the encoder.

**Shaft adapters**



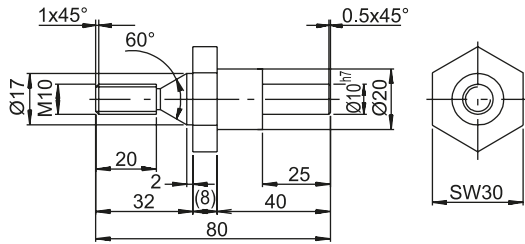
**Shaft adapters:**

The shaft adapters are screwed into an appropriate thread on the lift.



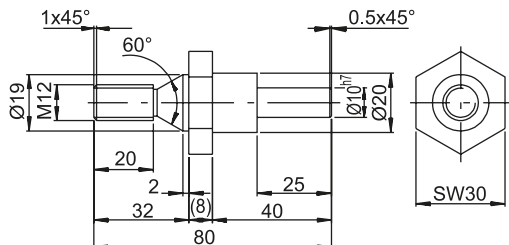
Shaft adapter M8

Order No.: WDGWA10M08



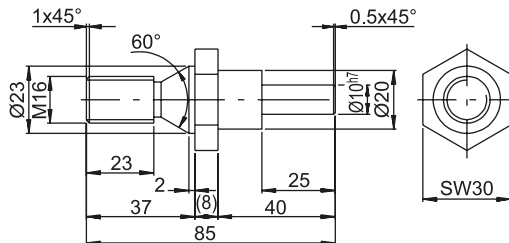
Shaft adapter M10

Order No.: WDGWA10M10



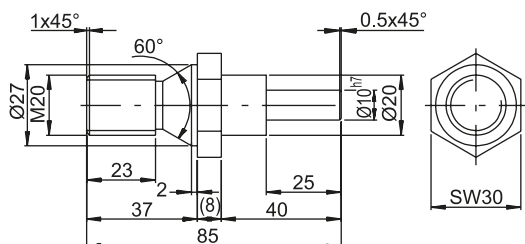
Shaft adapter M12

Order No.: WDGWA10M12



Shaft adapter M16

Order No.: WDGWA10M16



Shaft adapter M20

Order No.: WDGWA10M20

**Note:**

YYYYY: Please specify required PPR.

**Ordering information installation kit WDGAK58B:**

Description:	Order No.:
<b>Installation kit comprising:</b> 10-30 VDC HTL - WDG158E-YYYY-ABN-R24-SH8 - YYYYY: with 1024, 2048, 4096 Imp. - 6 channels, A, B, N, A, B, N - R24: 10 - 30 VDC with inv. output circuit - SH8: radial connector, 8 pin - KD84015: 15 m ready-made cable - Shaft adapter: 08, 10, 12, 16, 20	WDGAK58EYYYYR24
<b>Installation kit comprising:</b> 5 VDC TTL, RS422 - WDG158E-10-YYYY-ABN-R05-SH8 - YYYYY: with 1024, 2048, 4096 Imp. - 6 channels, A, B, N, A, B, N - R05: 5 VDC TTL with inv. output circuit - SH8: radial connector, 8 pin - KD84015: 15 m ready-made cable - Shaft adapter: 08, 10, 12, 16, 20	WDGAK58EYYYYR05

Customs tariff number: 90318020  
Country of origin: Germany

## Montageanleitung Hohlwellengeber WDG/WDGI

Assembly instructions hollowshaft encoder, Notice de montage codeur rotatif à arbre creux, Instrucciones de montaje encoder ad albero cavo, istruzioni di montaggio encoders de eje hueco.

**Montage nur qualifiziertes Personal,** Assembly only qualified personnel, Montage pair qualifié personnel, Montaggio solo personale qualificato, Montaje solamente personal cualificado.

**Sicherheitsmassnahmen/Safety instructions:** Einsatz nur in Industrieumgebung und NICHT im sicherheitsrelevanten Bereich. Only for use in industrial environments and NOT for safety-relevant areas. Utilisation uniquement dans un environnement industriel et PAS dans un domaine lié à la sécurité. Utilicelo sólo en entornos industriales y NO en áreas relevantes para la seguridad. Utilizzare solo in ambienti industriali e NON in aree riguardanti la sicurezza.

**Power supply:** Class 2/LPS only

DIN EN 100015-1

**58H/E 40E** Artikelnr., Item number, Numéro d'article, Número de artículo : WDGDS10001

	d/mm	Lmin.	Lmax.	D
58H	6, 6.35 (1/4"), 7, 8, 9.525 (3/8"), 10, 12, 12.7 (1/2"), 14, 15	11	11	56
58E opt.	6, 6.35 (1/4"), 7, 8, 9.525 (3/8"), 10, 12, 15	11	39	56
58E magn.	6, 6.35 (1/4"), 7, 8, 9.525 (3/8"), 10, 12, 14, 15	11	16	56
40E	6	11	20	50

**80H** Artikelnr., Item number, Numéro d'article, Número de artículo : WDGDS10001

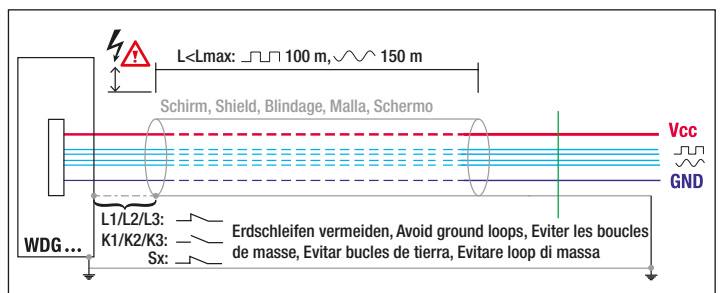
	d/mm	Lmin.	Lmax.	D
80H	10, 12, 14, 15, 16, 18, 20, 25, 27	11	11	56

**100I/K** Artikelnr., Item number, Numéro d'article, Número de artículo : WDGDS10012

	d/mm	Lmin.	Lmax.	D
WDG100I	25, 25.4 (1"), 30, 32, 38, 40, 42	11	11	56
WDG100K	45	11	11	56

**145H** Artikelnr., Item number, Numéro d'article, Número de artículo : WDGDS10001

	d/mm	Lmin.	Lmax.	D
145H	45, 48, 50, 55, 60, 65, 72	11	11	56



WDGI (Stecker, connector, connecteur, conector, spina): -40 °C ... +85 °C (-40 °F ... +185 °F)

WDG\* + WDGI (Kabel, cable, Câble, Cable, cavo)\*\*: -20 °C ... +80 °C (-4 °F ... +176 °F)

Option: \* -40 °C ... +80 °C (-40 °F ... +176 °F) \*\* -40 °C ... +85 °C (-40 °F ... +185 °F)

1Vs: -10 °C ... +70 °C (14 °F ... +158 °F)

-30 °C ... +80 °C (-22 °F ... +176 °F)

Kabel ø, cable, Câble, Cable, cavo	R1	R2	Temperatur, Temperature, Temperatura
≤ 7 mm	31.5 mm	94.5 mm	T > -20 °C (-4 °F)
> 7 mm	41.5 mm	124.5 mm	T > -20 °C (-4 °F)
≤ 7 mm	46.5 mm	139.5 mm	T > -40 °C (-40 °F)
> 7 mm	62.3 mm	186.3 mm	T > -40 °C (-40 °F)

WDGI36E Artikelnr., Item number, Numéro d'article, Número de artículo :

	d/mm	Lmin.	Lmax.	D
WDGDS10016	6, 6.35 (1/4")	8	17	42
WDGI36E	7, 8, 9.525 (3/8")	10	14.5	42
WDGDS10021	10, 12, 14, 15			

**100H/G** Artikelnr., Item number, Numéro d'article, Número de artículo : WDGDS10001

	d/mm	Lmin.	Lmax.	D
100H/G	25, 28, 30, 32, 38, 40, 42, 45	11	11	56

**100G** Artikelnr., Item number, Numéro d'article, Número de artículo : FEFB00H013-ZVK

**Standard**

	F <sub>r</sub> max.	F <sub>a</sub> max.
WDGI36E	80 N	50 N
WDG40E	100 N	50 N

**Standard**

	F <sub>r</sub> max.	F <sub>a</sub> max.
WDGI58E optisch, optical, optique, óptico, ottico	80 N	60 N
WDGI58E magnetisch, magnetic, magnétique, magnético, magnetico	80 N	50 N
WDGI58H	80 N	60 N
WDG 80H/100H/100I/100G/145H	200 N	100 N

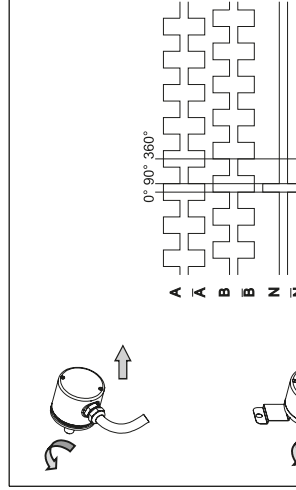
Schaltung Circuit Couplage Commutación collegamento	Stecker, connector, Fiche, Conector, spina										M12-Sensorstecker, sensor-connector, Fiche de palpeur, Conecto de sonda, spina sensore		Kabel, cable, Câble, Cable, cavo							
	SI5 axial, SH5 radial, 5-pin	SI6 axial, SH6 radial, 6-pin	SI2 axial, S3 radial, 7-pin	SI8 axial, SH8 radial, 8-pin	SI12 axial, SH12 radial, 12-pin	S4 axial, S4R axial S5 radial, S5R radial 12-pin	S6 radial, 6-pin	S7 axial, 4-pin	SK6 axial, 6-pin	SK8 axial, 8-pin	SB4 axial, SC4 radial, 4-pin	SB5 axial, SC5 radial, 5-pin	SB8 axial, SC8 radial, 8-pin	SB12 axial, SC12 radial, 12-pin	R05 M05 M30	R05 P05 M35	ACA: 24C 30A 40	ACA: 58, 63, 67, 70, 115	58S/V	
	F05 H05 F24 H24 H30 N35	F05 H05 F24 H24 H30 N35	F05 H05 F24 H24 H30 N35	P05 R05 P24 R24 H24 H30 N35 SIN R30 M35	F05 H05 F24 H24 H30 N35 SIN R30 M35	F05 H05 F24 H24 H30 N35	F05 H05 F24 H24 H30 N35	F05 H05 F24 H24 H30 N35	N05 M30 N30	N05 M30 N30	F05 H05 F24 H24 H30 N35	F05 H05 F24 H24 H30 N35	F05 H05 F24 H24 H30 N35	F05 H05 F24 H24 H30 N35	R30 M05 M30	R05 P05 R24 P24 M35				R05 P05 R24 P24 M35
Minus U-	1	6	1	1	K/L	10	A	1	3	1	3	1	1	3	WH	WH				WH
Plus U+	2	1	2	2	M/B	12	F	2	2	2	2	2	2	2	BN	BN				BN
A	3	2	3	3	E	5	C	3	4	3	4	3	3	4	GN	GN				GN
B	4	4	4	4	H	8	B	4	4	4	4	4	4	4	YE	YE				YE
N	5	3	5	5	C	3	D	-	1	5	5	5	5	7	GY	GY				GY
A inv.	-	-	-	-	-	-	-	-	6	-	-	-	-	6	-	RD	RD		RD	
B inv.	-	-	-	-	-	-	-	-	7	-	-	-	-	7	-	PK	PK		PK	
N inv.	-	-	-	-	-	-	-	-	8	-	-	-	-	8	-	BU	BU		BU	
n. c.	-	5	6, 7	6, 7, 8	A, D, F, G, J	2, 7, 6, 7, 9, 11	E	-	6, 7, 8	6, 7, 8	6, 7, 8	6, 7, 8	6, 7, 8	2, 5, 7, 9, 10, 11, 12	-	-				-
Schirm*2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-
																				Litze, Flex, Toron, Cordón, Cavetto

**WH:** weiss, white, blanc, bianco, bianco  
**BN:** braun, brown, brun, marrón, marrone  
**GN:** grün, green, vert, verde, verde  
**YE:** gelb, yellow, jaune, amarillo, giallo  
**GY:** grau, grey, gris, gris, grigio  
**PK:** rosa, pink, rose, rosa, rosa  
**RD:** rot, red, rouge, rojo, rosso  
**BK:** schwarz, black, noir, negro, nero  
**BU:** blau, blue, bleu, azul, blu  
**VT:** violett, violet, violet, violeta, violetto  
**Litze:** Litze, Flex, Toron, Cordón, Cavetto

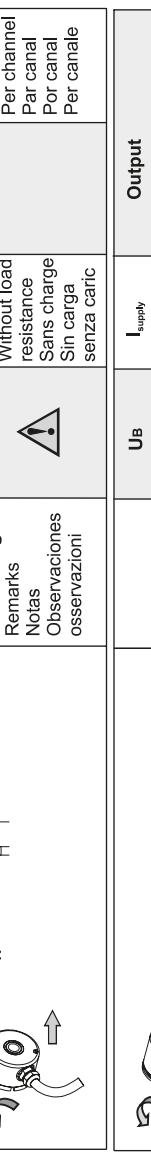
\*2 Schirm  
Shield  
Blindage  
Malla  
Schermo

**Steckergehäuse aus Kunststoff (S7)**  
Plastic connector housing (S7)  
Boîtier de connexion en matière plastique (S7)  
Caja de conector de plástico (S7)  
scatola prese in plastica (S7)

	U <sub>B</sub>	I <sub>supply</sub>	Output	I <sub>fourmax</sub>
R30, H30, M30, M35	5...30 VDC	≤70 mA	H>U <sub>B</sub> -10% U <sub>B</sub> L<2,5VDC	40 mA
H24, F24, R24, P24	4,75...30 VDC	N05, N30, M05, M30, M35	H>U <sub>B</sub> -2,5VDC L<2,5VDC	N05, N30, M05, M30 = 30 mA
245, 645	10...30 VDC	≤ 40 mA	H>2,5VDC L<1,2VDC	
H05, F05, R05, M05, M05, P05	4,75...5,5 VDC	P05, P24, F05, F24, 645 ≤ 100 mA	H>2,5VDC L<0,5VDC	
<b>Bemerkungen</b> Remarks Notas Osservazioni		<b>Ohne Last</b> Without load resistance Sans charge Sin carga senza carico	<b>Pro Kanal</b> Per channel Per canal Per canale	



**Steckergehäuse/Schirm mit Gebergehäuse leitend verbunden. (Nicht S7, K1, K2, K3)**  
Connector housing/shield electrically connected to encoder housing (not S7, K1, K2, K3)  
Boîtier de connexion/Écran avec boîtier d'émetteur liés de manière conductrice (No S7, K1, K2, K3)  
Caja de conector/Malla conectada en conductancia con caja de transmisor (No S7, K1, K2, K3)  
Scatola prese/Schermo con scatola trasmettitore collegata da condurre (No S7, K1, K2, K3)



**WACHENDORFF**  
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Autres pays, veuillez contacter votre distributeur.  
Otros países, rogamos contactar a su distribuidor.  
Per gli altri paesi si prega di contattare il vostro distributore.

