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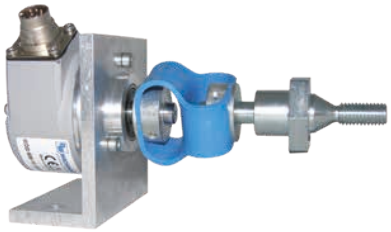
Installation Kit for frequency-control lifts WDGAS58B with shaft encoder

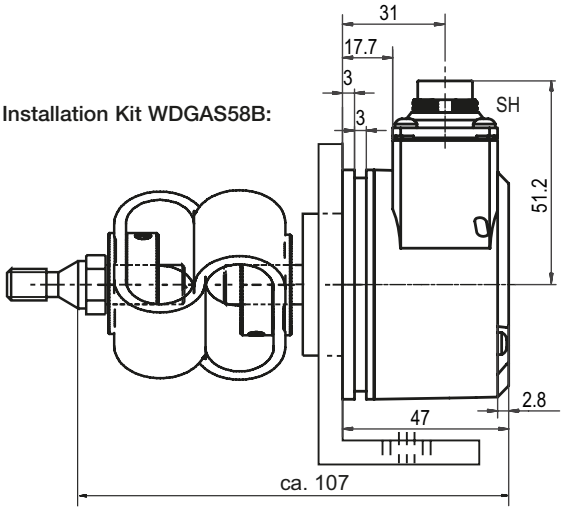


- Complete retrofit set
- Quickly and reliably fitted with the aid of the accessories
- Cost-effective modernisation solution
- HTL output (TTL at 5 VDC)
- Threads: M8, M10, M12, M16 and M20

www.wachendorff-automation.com/wdgas58b

The following installation kits are available for fitting the encoder to a frequency controlled lift. Every installation kit consists:
1 x Encoder, 1 x Mountingangle, 1 x shielded cable 15 m length, 1 x double loop coupling, 1 x Shaftadapter

Installation Kit WDGAS58B:



(in use with shaft adapter M8)

Mechanical Data

Housing	
- Clamping flange:	Aluminium
- Cap:	Aluminium, powder coated
- Diameter:	58 mm
Shaft	
- Material:	stainless steel
- Diameter:	10 mm, H7
- Lenght:	20 mm
- Permitted load	max. 220 N radial
Load:	max. 120 N axial
- Starting torque:	approx. 1 Ncm at ambient temperature
Bearings	
- Type:	2 precision ball bearings
- Service life:	1x 10^9 U revs. at 100 % shaft load
	1x 10^{10} U revs. at 40 % shaft load
	1x 10^{11} revs. at 20 % shaft load
Max. operating speed:	8000 rpm
Weight:	approx. 250 g
Connections:	SH8: radial connector, 8 pin
Operating temperature:	-20 °C up to +80 °C
Storage temperature:	-30 °C up to +80 °C

Machinery Directive: basic data safety integrity level

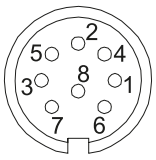
$MTTF_d$:	200 a
Mission time (T_M):	25 a
Nominale service life ($L_{10}h$):	1x 10^{11} revs. at 8000 rpm and 20 % rated shaft load
Diagnostic coverage (DC):	0 %

Encoder-Order No.: WDGI58B-10-YYYYY-ABN-M35-SH8
- YYYYY: with 1 up to 16384 PPR
- 6 channels, A, B, zero marker pulse N + Inv.
- 4.75 VDC up to 30 VDC HTL (TTL at 5 VDC) with inv. output
- SH8: radial connector, 8 pin

YYYYY: Please specify required PPR.

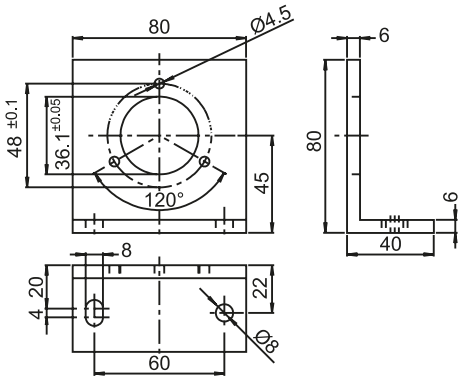
Pin identification SH8:

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



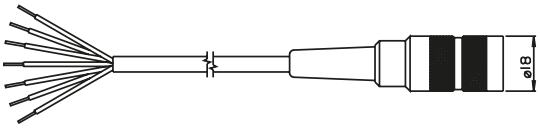
The view of the soldered side of the connector connector corresponds to the view of the pin arrangement on the encoder.

Mounting bracket:
The mounting bracket makes for easy installation of the encoder in the lift system. However care should be taken that the admissible load of the coupling is adhered to.



Order No.: MW58B

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.



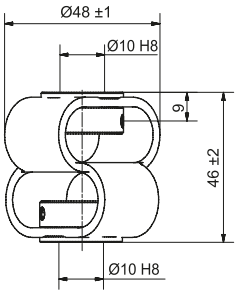
The cable has a connection as follows:

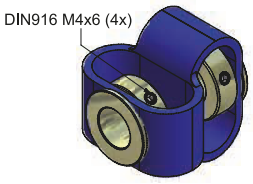
Function	Colour
Positive	brown
Negative	white
A	green
A inv.	red
B	yellow
B inv.	black
N	gray
N inv.	violet
Shield:	cable braiding

Order No: KD84015

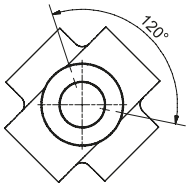
Double loop coupling:
The double loop coupling serves to compensate for any mis-alignment between the drive and the encoder. The coupling has extremely high compensation capabilities.

Features:	excellent compensation capabilities
Max. offset of shafts:	axial: max. ±4 mm
	radial: max. ±3 mm
	angular: ± 12°
Max. operating speed:	3000 rpm
Starting torque:	max. 200 Ncm
Material:	
- Hub:	zinc-plated
- Compensating element:	polyurethan
Weight:	85 g
Fixing:	DIN 916 M4x6 (4x)
Operating temperature:	-30 °C up to +80 °C



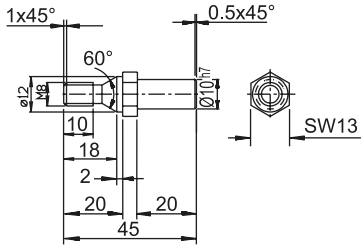


Order No.: DSK481010

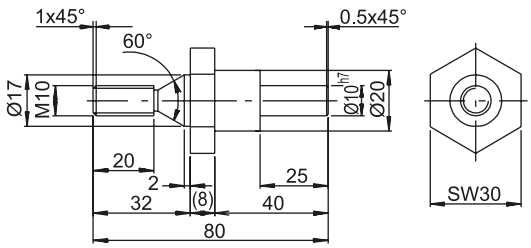


Shaft adapters

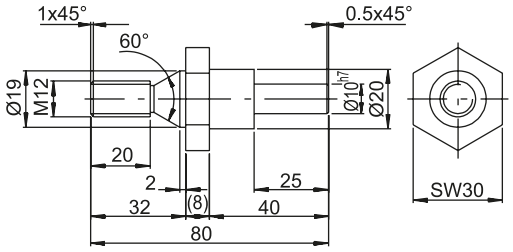
Shaft adapters:
The shaft adapters are screwed into an appropriate thread on the lift and allow a simple connection via the double loop coupling.



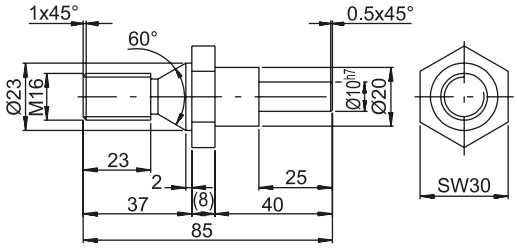
Shaft adapter M8 Order No.: WDGWA10M08



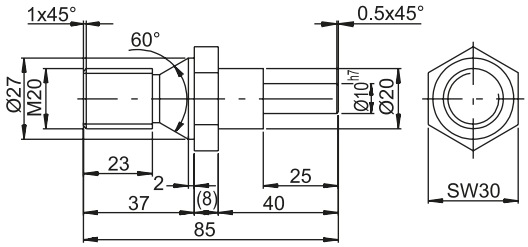
Shaft adapter M10 Order No.: WDGWA10M10



Shaft adapter M12 Order No.: WDGWA10M12



Shaft adapter M16 Order No.: WDGWA10M16



Shaft adapter M20 Order No.: WDGWA10M20

Note:
XX: Please insert the code corresponding to the required shaft adapter:

Shaft adapter 10/M8:	08
Shaft adapter 10/M10:	10
Shaft adapter 10/M12:	12
Shaft adapter 10/M16:	16
Shaft adapter 10/M20:	20

YYYYY: Please specify required PPR.

Ordering information WDGAS58B:

Description:	Order No.:
Installation kit comprising: - WDGI58B-10-YYYYY-ABN-M35-SH8 - YYYYY: with 1 PPR to 16.384 PPR - 6 channels, A, B, N, $\overline{A}$, $\overline{B}$, $\overline{N}$ - M35: 4,75 VDC up to 30 VDC HTL with inv. output circuit (TTL at 5 VDC, RS422) - SH8: radial connector, 8 pin - MW58B: Mounting angle - KD84015: 15 m ready-made cable - DSK481010: Double loop coupling - XX: Shaft adapter: 08, 10, 12, 16 or 20	WDGAS58BYYYYYM35XX

Customs tariff number: 90318020
Country of origin: Germany

WACHENDORFF

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www.wachendorff-automation.de

Montageanleitung Vollwellengeber WDG/WDGI,

Assembly instructions shaft encoder, Notice de montage codeur rotatif à arbre plein,
Instrucciones de montaje encoder ad albero pieno, istruzioni di montaggio encoders de eje saliente.

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)
1Vss (1Vpp): -10 °C ... +70 °C (14 °F ... +158 °F)
58T: -10 °C ... +70 °C (58T: +14 °F ... +158 °F)

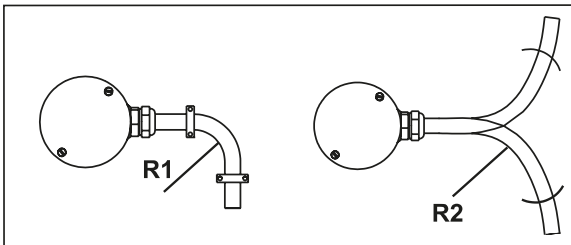
-30 °C...+80 °C
(-22 °F...+176 °F)

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. Utilícelo sólo en entornos industriales y NO en áreas relevantes para la seguridad. Utilizzare solo in ambienti industriali e NON in aree riguardanti la sicurezza.

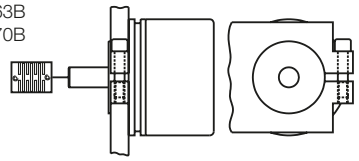
Power supply: Class 2/LPS only

DIN EN 100015-1

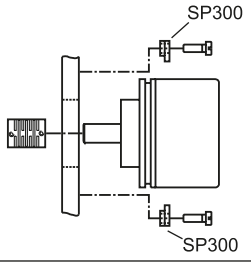


Kabel ø cable, Câble, Cable, cavo	R1	R2	**Temperatur** Temperature, Température, Temperatura, Temperatura
≤ 7 mm	31,5 mm	94,5 mm	T > -20 °C (-4 °F)
> 7 mm	41,5 mm	124,5 mm	T > -20 °C (-4 °F)
≤ 7 mm	46,5 mm	139,5 mm	T > -40 °C (-40 °F)
> 7 mm	62,3 mm	186,9 mm	T > -40 °C (-40 °F)

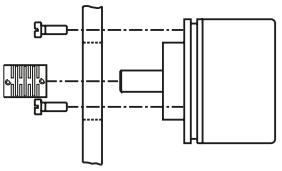
36C 58N
36K 58S
40K 58T
58B 58V
58D 63B
58K 70B



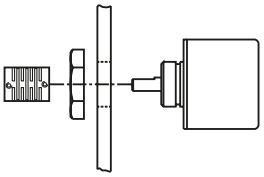
36A 58C
36J 58D
40A 58K
50B 58N
58A 58T
58B 63B



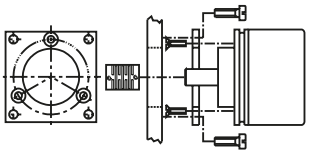
24C 58B
30A 58C
36A 58D
36C 58K
36J 58N
36K 58S
40A 58T
40K 58V
50B 63B
58A 70B



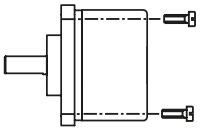
36S
40S
50V
53S
53V



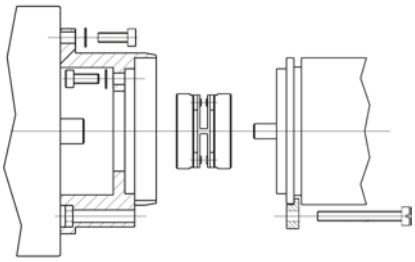
58B
58D
58K
58N
58S
58T
58V



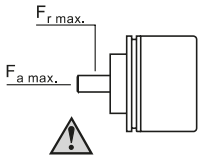
63Q
67Q
115T
115M



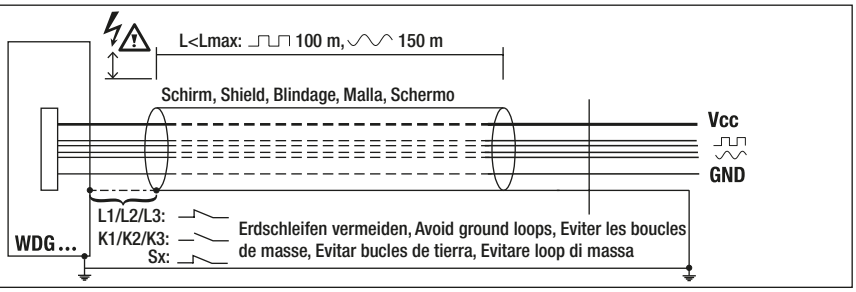
58A + MG58A



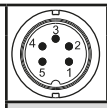
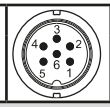
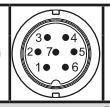
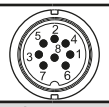
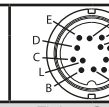
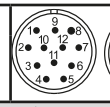
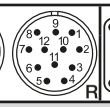
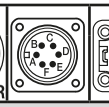
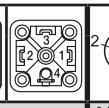
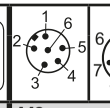
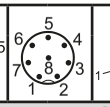
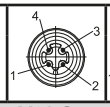
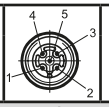
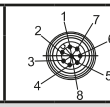
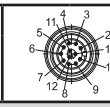
Standard (no IP67)	F_r max.	F_a max.
24C, 30A, 36C/K/S, 40A/K/S, 58K	80 N	50 N
36A 6 mm, 1/4"	80 N	50 N
36A 8 mm	50 N	50 N
36J	300 N	300 N
50B	120 N	70 N
50V, 53S, 53V	20 N	10 N
58A	125 N	70 N
58B,N,T,	220 N	120 N
WDG58D	400 N	400 N
WDGI58D	500 N	500 N
63B/Q, 67Q	220 N	120 N
70B	200 N	150 N
115T/M, 58C	200 N	120 N
58S, 58V	100 N	100 N



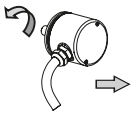
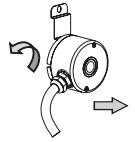
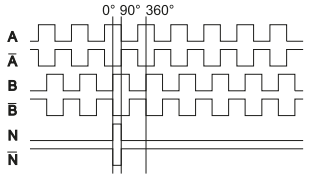
Gewinde (8.8) Screw thread, Filet, Rosca, filetto	**Empfohlenes Anzugsdrehmoment** Recommended starting torque, Moment de rotation recommandé appliqué à l'écrou, Par de apriete recomendado, coppia di spunto consigliata
M2.5	1.5 Nm
M3	1 Nm
M4	2 Nm
M5, M14	3 Nm
M6	6 Nm
Mutter, Screw nut, écrou, Tuerca, dado, M20x1,5	8 Nm



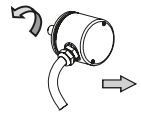
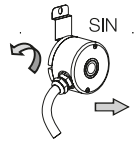
Frühwarnausgang Early-warning output, Sortie d'alerte, Salida de advertencia prematura, uscita di preavvertimento		**IRLED**	**IRLED**
Schaltung Circuit, Couplage, Conmutación, collegamento	**G24, I24, G05, I05, 524**	**high**	**low**

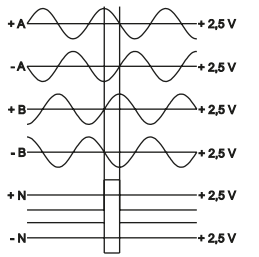
















	Stecker, connector, Fiche, Conector, spina											M8-			M12-Sensorstecker, sensor-connector, Fiche de palpeur, Conecto de sonda, spina sensore							Kabel, cable, Câble, Cable, cavo						
	SI5 axial, SH5 radial, 5-pin	SI6 axial, SH6 radial, 6-pin	S2 axial, S3 radial, 7-pin	SI8 axial, SH8 radial, 8-pin		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		ACA: 24C 30A 40		ACA: 58, 63, 67, 70, 115			58S/V
																							K2/L2 axial; K3/L3 radial T3 tangential K1/K7/L7						
Schaltung Circuit Couplage Conmutación collegamento	F/H/05 F/H24 H30 N35	G/F/H/05 G/F/H24 H30 N35	G/F/H/05 G/F/H24 H30 N35	F/H05 F/H24 H30 N35	P/R05 P/R24 245/645 SIN R30 M35	G/F/H05 G/F/H24 H30 N35	I/P/R05 I/P/R24 245, 524 645 SIN, SIF R30 M35	G/F/H05 G/F/H24 H30 N35	I/P/R05 I/P/R24 245, 524 645 SIN, SIF R30 M35	G/F/H/05 G/F/H24 H30 N35	F/H/05 F/H24 H30 N35	N05 N30	N05 N30	M05 M30	F/H/05 F/H24 H30 N35	F/H/05 F/H24 H30 N35	F05 H05 F24 H24 H30 N35	P05 R05 P24 R24 R30 245 645 M35	S i n u s	G/F05/ H05 G/F24/ H24 H30 N35	I/P/R05 I/P/R24 245 524 645 R30 M35	G/F/H05 G/F/H24 H30 N05 N30 N35	R30 M05 M30	M05 M30 R24 M35	I/R/P05 I/R/P24 245 524 645 R30 M35	I/R/P05 I/R/P24 245 524 645 M35	SIN SIF	I/R/P05 I/R/P24 245 524 645 R30
Minus U-	1	6	1	1	1	K / L	K / L	10	10	A	1	3	1	1	3	3	1	1	1	3	3	WH	WH	WH	WH	WH	WH	WH
Plus U+	2	1	2	2	2	M / B	M / B	12	12	F	2	2	2	2	1	1	2	2	2	1	1	BN	BN	BN	BN	BN	BN	BN
A	3	2	3	3	3	E	E	5	5	C	3	4	3	3	2	4	3	3	3	4	4	GN	GN	GN	GN	GN	GN	GN
B	4	4	4	4	4	H	H	8	8	B	4	5	4	4	4	2	4	4	5	6	6	YE	YE	YE	YE	YE	GY	YE
N	5	3	5	5	5	C	C	3	3	D	-	1	5	5	-	5	5	5	7	8	8	GY	GY	GY	GY	GY	BK	GY
Frühwarn-ausgang*1	-	5	6	-	-	G	G	11	11 SIF 7	E	-	-	-	-	-	-	-	-	-	5	5	PK	-	-	PK	PK	RD	PK
A inv.	-	-	-	-	6	-	F	-	6	-	-	-	-	6	-	-	-	6	4	-	9	-	RD	RD	RD	RD	YE	RD
B inv.	-	-	-	-	7	-	A	-	1	-	-	-	-	7	-	-	-	7	6	-	7	-	PK	BK	BK	BU	PK	BU
N inv.	-	-	-	-	8	-	D	-	4	-	-	-	-	8	-	-	-	8	8	-	10	-	BU	VT	VT	VT	VT	VT
n. c.	-	-	7	6, 7, 8	-	A, D, F, J	J	1, 2, 4, 6, 7, 9	2, 7, 9 Sinus 2, 9, 11	-	-	6	6, 7, 8	-	-	-	6, 7, 8	-	-	2, 7, 9, 10, 11, 12	2, 11, 12	-	-	-	-	-	-	-
Schirm*2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Litze, Flex, Toron, Cordón, Cavetto						

	U_B	I_{supply}	Output	$I_{OUT,max}$
R30, H30, N30, M30	5...30 VDC	≤70 mA	H>U_B-10% U_B L<2,5VDC	40 mA
N35, M35	4,75...30 VDC	N05, N30, N35, M05, M30, M35 ≤ 40 mA		
G24, H24, F24, I24, R24, P24	10...30 VDC		H>U_B-2,5VDC L<2,5VDC	N05, N30, M05, M30 = 30 mA
245, 524, 645		P05, P24, F05, F24, 645 ≤ 100 mA	H>2,5VDC L<1,2VDC	
G05, H05, F05, I05, R05, N05, M05, P05	4,75...5.5 VDC		H>2,5VDC L<0,5VDC	
Bemerkungen Remarks Notas Observaciones osservazioni	⚠	**Ohne Last** Without load resistance Sans charge Sin carga senza caric		**Pro Kanal** Per channel Par canal Por canal Per canale



	U_B	I_{supply}	Output
SIN, SIF	4,75...5,5 VDC	≤100mA	1V peak to peak +/- 25%
Bemerkungen Remarks Notas Observaciones osservazioni	⚠	**Ohne Last** Without load resistance Sans charge Sin carga senza carico	**Symetrisch an** Symetrically at Symétrique à Simétrico en simmetrico su Z_L=120 Ohm

*1 **Frühwarnausgang nur bei**
Early-warning output only for
Sortie d'alerte précoce
Salida de advertencia prematura
uscita di preavvertimento
G24, I24, G05, I05, 524, SIF

*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)

WH: weiss, white, blanc, blanco, 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

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/Ecran avec boîtier d'ementteur liés de manière conductrice (No S7, K1, K2, K3)
Caja de conector/Malla conectada en conductancia com caja de transmisor (No S7, K1, K2, K3)
Scatola prese/Schermo con scatola trasmettitore collegata da condurre (No S7, K1, K2, K3)

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