

Serie ESH 80



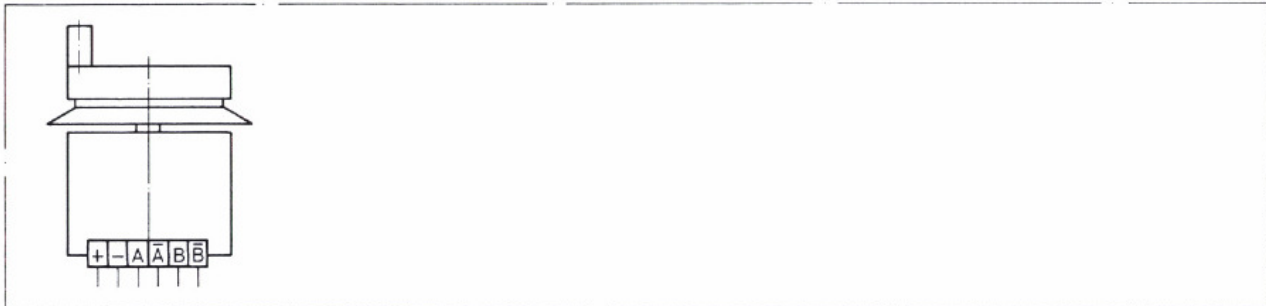
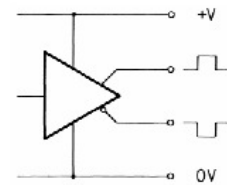
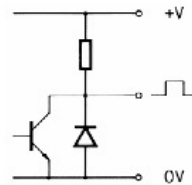
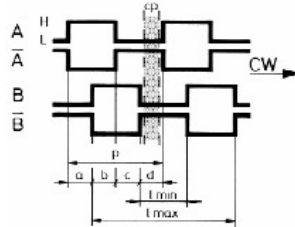
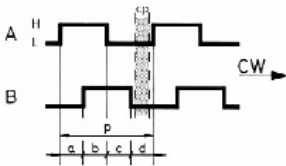
- **Impulse / Pulses** 100
(Feinrastrung / Precision click point)
- **Kanäle / Channels** 2 + 4
- **Spesespannung / Power supply** 5V DC
- **Ausgangstreiber / Output driver** Pull up / Line driver
- **Spralkabel / Helix cable** PUR
- **Schutzart / Protection** IP 60
- **Haftmagnet / Magnetic clamp** Ja / Yes

Ausgangskanäle / Output channel
M70
cp = Rasterabstand / Click point

M74
p = Periode

Ausgangstreiber / Output driver
Pull up (2 KΩ intern)

Line driver (RS 422)



Anschlüsse / Connection	+	-	A	B
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ESH80.1.1.1	8	9	1	2
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Auswahltabelle / Selection table M74

Anschlüsse / Connection	+	-	A	B	A'	B'
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ESH80.2.1.1	8	9	1	2	3	4
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- | | |
|-----------------|----------------------|
| 1 Weiss / White | 6 Rosa / Pink |
| 2 Braun / Brown | 7 Blau / Blue |
| 3 Grün / Green | 8 Rot / Red |
| 4 Gelb / Yellow | 9 Schwarz / Black |
| 5 Grau / Grey | 10 * Violet / Purple |

Kabelfarben nach / Cable colour at DIN 47100

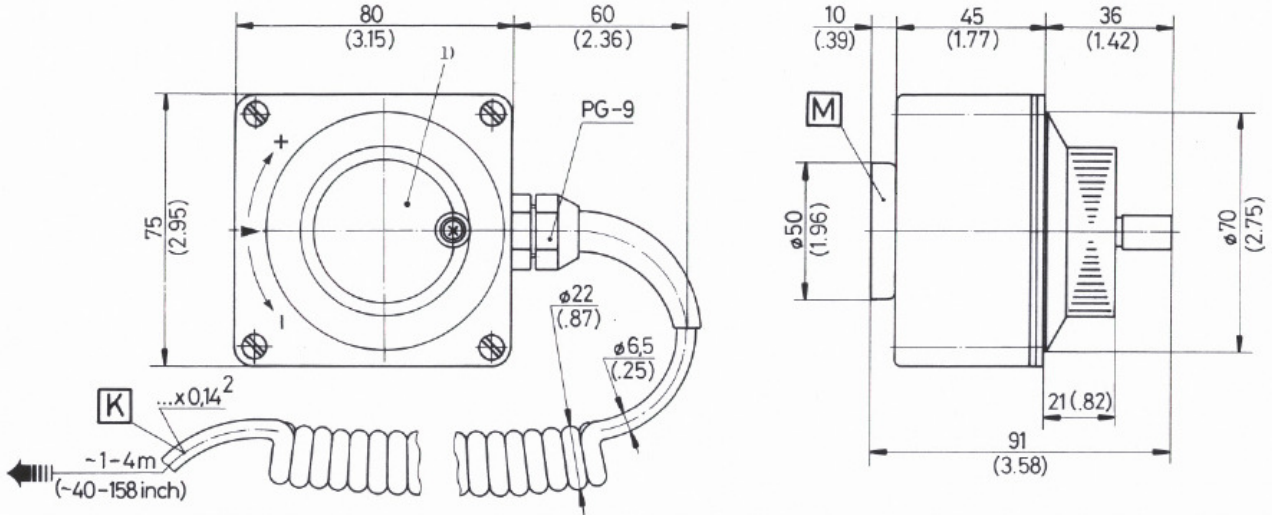
* Unbenutzte Anschlüsse sind vor Inbetriebnahme zu isolieren / * Unused terminals should be insulated before initial start-up

Serie ESH 80

Massbild (Zoll in Klammern)

Outline drawing (inch. in bracket)

Option: ¹⁾ = Firmen LOGO / Customer LOGO



Bestelltext Typ	How to order Type	Digitaler Wegaufnehmer ESH80.M70.K10.M50
Bestellschlüssel (Auswahltabelle)	Order key (Selection table)	ESH80. X X X
Typ Gehäusegrösse 80 x 75 mm (Alu-Druckguss) Digitaler Wegaufnehmer	Type Housing dimension 3.15 x 2.95 inch (Alu-diecasting) Manual pulse generator	
Ausgangstreiber (Kanäle A / B) Speisespannung Ausgangstreiber (Kanäle A / B / A' / B') Speisespannung	Output driver (Channels A / B) Power supply Output driver (Channels A / B / A' / B') Power supply	1 Pull up 5V DC ±5 % 2 Line driver 5V DC ±5 %
Spiralkabel K Anzahl Adern	Helix cable K Number of lines	1 10 x 0.14 mm ² (AWG 26)
Haftmagnete (inkl.)	Magnetic clamp (incl.)	1 ø 50 (Hartferit)
Gehäusematerial Farbe Gewicht	Housingmaterial Colour Weight	GD AL Si 12 Schwarz / Black (RAL 9005) ~500 g

Technische Änderungen vorbehalten / Subject to change without prior notice

Serie ESH125



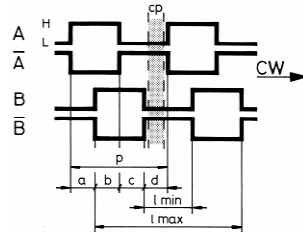
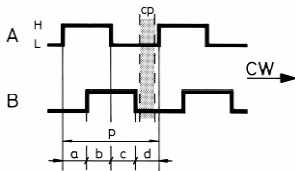
- **Impulse / Pulses** (Feinrasterung / Precision click point) 100
- **Kanäle / Channels** 2 + 4
- **Speisespannung / Power supply** 5V DC
- **Ausgangstreiber / Output driver** Pull up / Line driver

- **Notstoppschalter / Emergency Stopp** 2 x OFF

- **Spiralkabel / Helix cable** PUR
- **Schutzart / Protection** IP 60
- **Haftmagnet / Magnetic clamp** JA / Yes

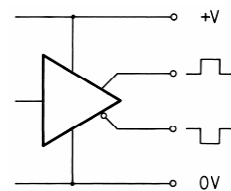
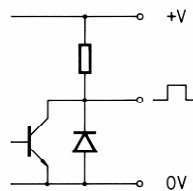
Ausgangskanäle / Output channel

M70
cp = Rasterabstand / Click point
M74
p = Periode

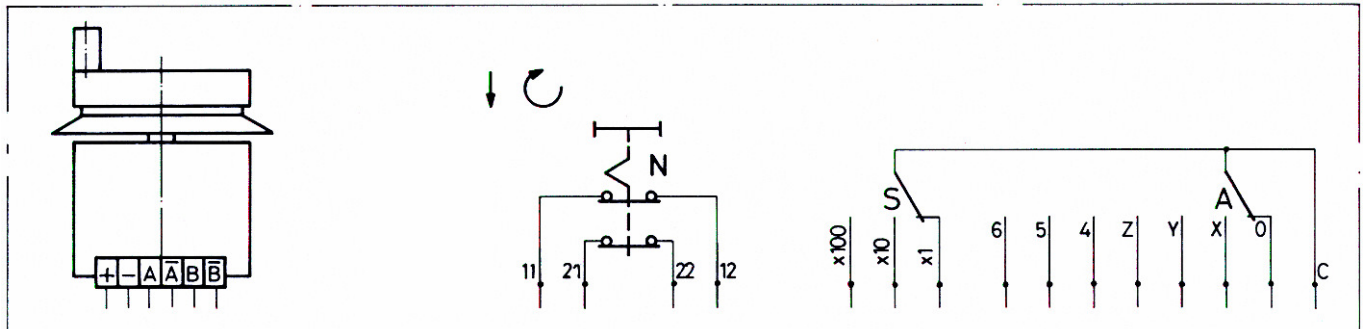


Ausgangstreiber / Output driver

Pull up (2 KΩ intern) Line driver (RS 422)



Elektrische Anschlüsse / Electrical connection



Auswahltabelle / Selection table **M70** **N71** **N72**

Anschlüsse / Connection	+	-	A	B		11	12	21	22
ESH125.1.1.1	8	9	1	2					
ESH125.1.1.1.1	8	9	1	2		5	6		
ESH125.1.2.1.1	8	9	1	2		5	6	7	10

Auswahltabelle / Selection table **M74** **N71** **N72**

Anschlüsse / Connection	+	-	A	B	A'	B'	11	12	21	22
ESH125.2.1.1	8	9	1	2	3	4				
ESH125.2.1.1.1	8	9	1	2	3	4	5	6		
ESH125.2.2.1.1	8	9	1	2	3	4	5	6	7	10

Manual pulse generator Digitale Wegaufnehmer

Serie ESH125

- | | |
|-----------------|--------------------|
| 1 Weiss / White | 6 Rosa / Pink |
| 2 Braun / Brown | 7 Blau / Blue |
| 3 Grün / Green | 8 Rot / Red |
| 4 Gelb / Yellow | 9 Schwarz / Black |
| 5 Grau / Grey | 10 Violet / Purple |

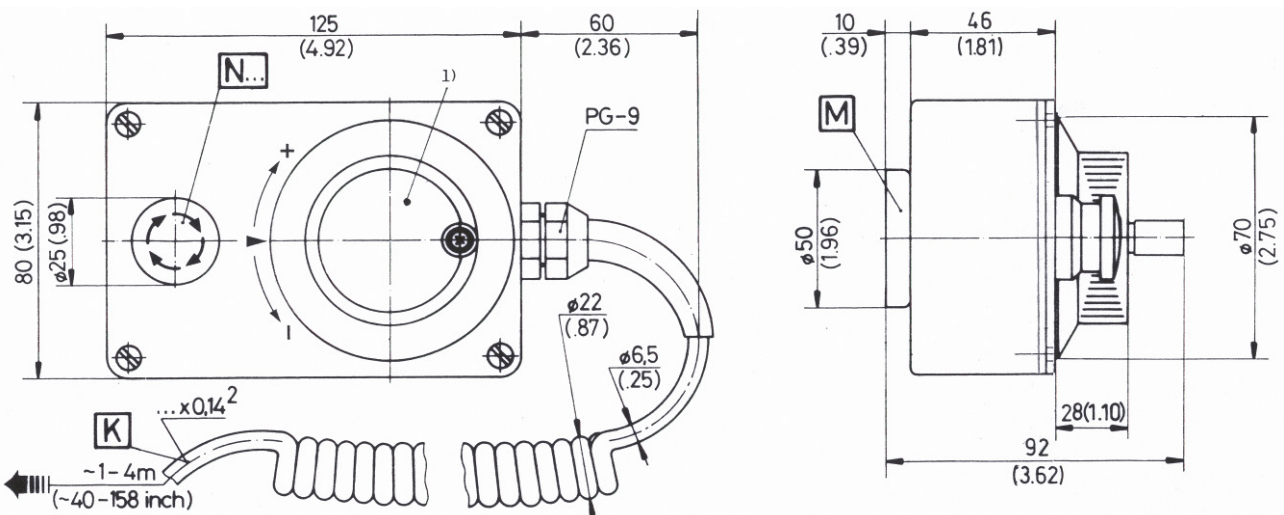
Kabelfarben nach / Cable colour at DIN 47100

Unbenutzte Anschlüsse sind vor Inbetriebnahme zu isolieren / Unused terminals should be insulated before initial start-up

Massbild (Zoll in Klammern)

Outline drawing (inch. in bracket)

Option: ¹⁾ = Firmen LOGO / Customer LOGO



Bestelltext
Typ

How to order
Type

Digitaler Wegaufnehmer
ESH125.M70.N72.K10.M50

Bestellschlüssel (Auswahltabelle)

Order key (Selection table)

Typ
Gehäusegrösse 80 x 125 mm
(Alu-Druckguss)
Digitaler Wegaufnehmer

Type
Housing dimension 3.15 x 4.92 inch
(Alu-diecasting)
Manual pulse generator

Ausgangstreiber (Kanäle A / B)
Speisespannung
Ausgangstreiber (Kanäle A / B / A' / B')
Speisespannung

Output driver (Channels A / B)
Power supply
Output driver (Channels A / B / A' / B')
Power supply

Notstoppschalter N
Kontakt Typ

Emergency stop N
Contact type

Spiralkabel (Anzahl Adern) K

Helix cable (Number of lines) K

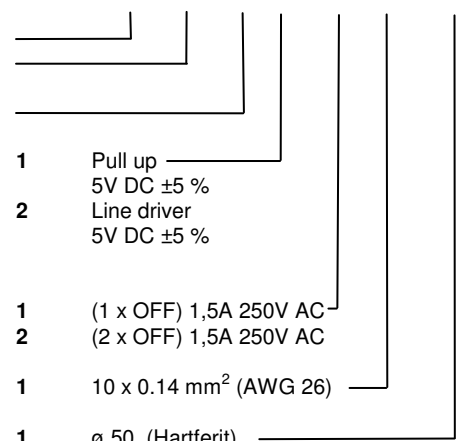
Haftmagnete (inkl.)

Magnetic clamp (incl.)

Gehäusematerial
Farbe
Gewicht

Housingmaterial
Colour
Weight

ESH125. x x x x



GD AL Si 12
Schwarz / Black (RAL 9005)
~900 g

Serie ESH140



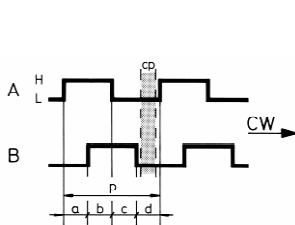
- **Impulse / Pulses** 100
(Feinraasterung / Precision click point)
- **Kanäle / Channels** 2 + 4
- **Speisespannung / Power supply** 5V DC
- **Ausgangstreiber / Output driver** Pull up / Line driver

- **Achswahlschalter / Selector switches for axes** 1...6
- **Schrittweitschalter / Switches for resolution** 1...3
- **Notstoppschalter / Emergency stop**

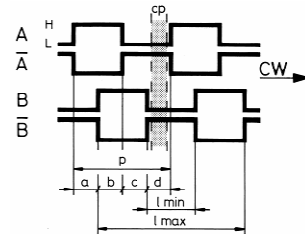
- **Spiralkabel / Helix cable** PUR
- **Schutzart / Protection** IP 60
- **Haftmagnet / Magnetic clamp** Option

Ausgangskanäle / Output channel

M70
cp = Rasterabstand / Click point

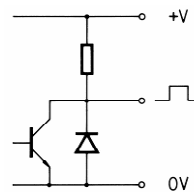


M74
p = Periode

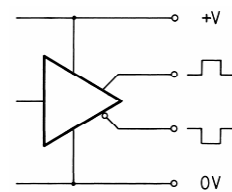


Ausgangstreiber / Output driver

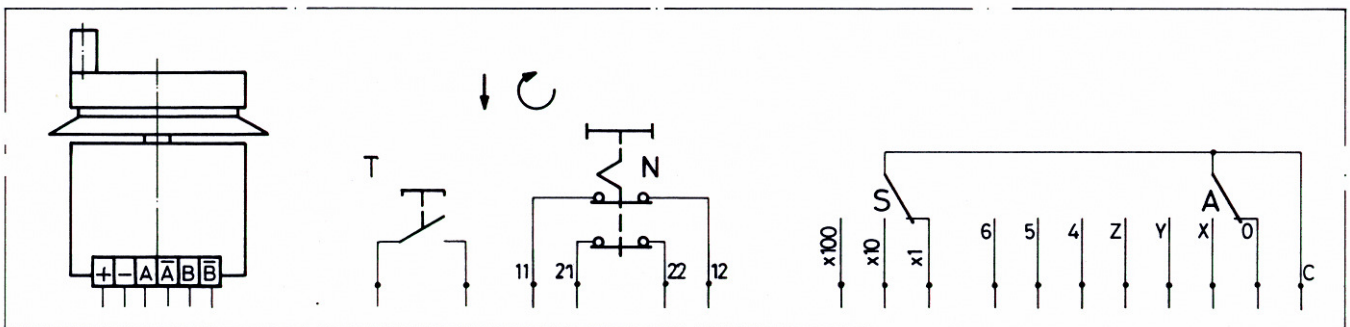
Pull up (2 KΩ intern)



Line driver (RS 422)



Elektrische Anschlüsse / Electrical connection



Auswahltabelle / Selection table M70
(TL)

A1...6

S1...3

N61

N62

TR

Anschlüsse / Connection	+	-	A	B	A'	B'	C	0	X	Y	Z	4	5	6	x ¹	x ¹⁰	x ¹⁰⁰	11	12	21	22			
ESH140.1.1	8	9	1	2			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ESH140.1.2.1	8	9	1	2			-	-	-	-	-	-	-	-	-	-	-	5	6	7	10	-	-	-
ESH140.1.6.3.2	8	9	1	2			17		11	12	13	14	15	16	18	3	4	-	-	-	-	-	-	-
ESH140.1.6.3.1.2	8	9	1	2			17		11	12	13	14	15	16	18	3	4	5	6	-	-	-	-	-
ESH140.1.6.3.2.2	8	9	1	2			17		11	12	13	14	15	16	18	3	4	5	6	7	10	-	-	-
ESH140.1.2.1.1	8	9	1	2			-	-	-	-	-	-	-	-	-	-	-	5	6	7	10	3	4	-
ESH140.1.6.3.1.1.2	8	9	1	2			17		11	12	13	14	15	16	18	3	4	5	6	-	-	-	7	10

Manual pulse generator Digitale Wegaufnehmer

Serie ESH140

Auswahltable / Selection table M74
(TL)

A1...6

S1...3

N61

N62

TR

Anschlüsse / Connection	+	-	A	B	A'	B'	C	0	X	Y	Z	4	5	6	x ¹	x ¹⁰	x ¹⁰⁰	11	12	21	22	
ESH140.2.1	8	9	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ESH140.2.2.1	8	9	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	5	6	7	10	-
ESH140.2.6.3.2	8	9	1	2	3	4	17	-	11	12	13	14	15	16	18	5	6	-	-	-	-	-
ESH140.2.6.3.1.2	8	9	1	2	3	4	17	-	11	12	13	14	15	16	18	7	10	5	6	-	-	-
ESH140.2.4.3.2.2	8	9	1	2	3	4	17	-	11	12	13	14	-	-	18	15	16	5	6	7	10	-
ESH140.2.4.3.1.1.2	8	9	1	2	3	4	17	-	11	12	13	14	-	-	18	7	10	5	6	-	-	15

- | | | | |
|-----------------|--------------------|------------------------------|------------------------------|
| 1 Weiss / White | 6 Rosa / Pink | 11 Grau-Rosa / Grey-Pink | 16 Gelb-Braun / Yellow-Brown |
| 2 Braun / Brown | 7 Blau / Blue | 12 Rot-Blau / Red-Blue | 17 Weiss-Grau / White-Grey |
| 3 Grün / Green | 8 Rot / Red | 13 Weiss-Grün / White-Green | 18 Grau-Braun / Grey-Brown |
| 4 Gelb / Yellow | 9 Schwarz / Black | 14 Braun-Grün / Brown-Green | |
| 5 Grau / Grey | 10 Violet / Purple | 15 Weiss-Gelb / White-Yellow | |

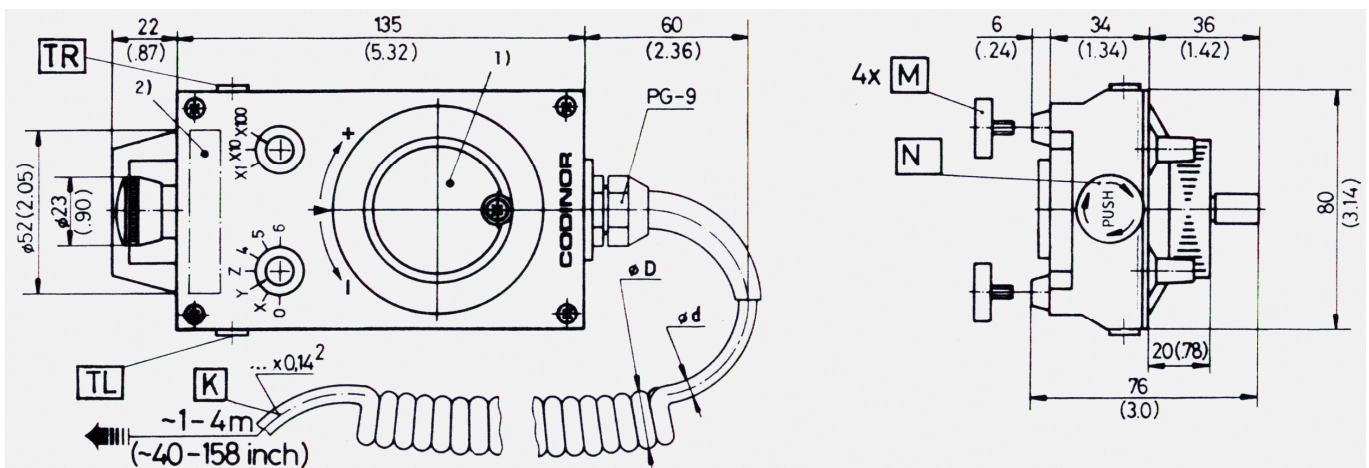
Kabelfarben nach / Cable colour at DIN 47100

Unbenutzte Anschlüsse sind vor Inbetriebnahme zu isolieren / Unused terminals should be insulated before initial start-up

Massbild (Zoll in Klammern)

Outline drawing (inch. in bracket)

Option: ¹⁺² = Firmen LOGO / Customer LOGO



Serie ESH140

Bestelltext Typ Haftmagnete	How to order Type Magnetic clamp	Digitaler Wegaufnehmer ESH140. x x x x x x x (inkl./ incl. 4 x M15)
Bestellschlüssel (Auswahltabelle)	Order key (Selection table)	ESH140. x x x x x x x
Typ Gehäusegröße 80 x 135 mm (Alu-Druckguss) Digitaler Wegaufnehmer	Type Housing dimension 3.15 x 5.32 inch (Alu-diecasting) Manual pulse generator	
Ausgangstreiber (Kanäle A / B) Speisespannung Ausgangstreiber (Kanäle A / B / A' / B') Speisespannung	Output driver (Channels A / B) Power supply Output driver (Channels A / B / A' / B') Power supply	1 Pull up 5V DC ±5 % 2 Line driver 5V DC ±5 %
Achswahlschalter A Anzahl Achsen	Switch for axes A Number of axes	3 0, X, Y, Z 4 0, X, Y, Z, 4 5 0, X, Y, Z, 4, 5 6 0, X, Y, Z, 4, 5, 6
Schrittweitschalter S Anzahl Stufen	Switch for resolution S Number of steps	1 x1 2 x1, x10 3 x1, x10, x100
Notstoppschalter N Kontakt Typ	Emergency stop N Contact type	1 (1x OFF) 1,5A 250V AC 2 (2x OFF) 1,5A 250V AC
Zustimmungstaste T Rechts Option (Links) Kontaktbelastung	Enable switch T Right side Option (Left side) Contact power	1 (1x ON) 2 (1x ON) 3 0,15A 125V AC / 0,4A 30V DC
Spiralkabel K Anzahl Adern	Helix cable K Number of lines	1 10 x 0.14 mm ² (AWG 26) 2 18 x 0.14 mm ² (AWG 26) 3 25 x 0.14mm ² (AWG 26)
Haftmagnete (Option) Typ	Magnetic clamp (Option) Type	2 4 x M15 (Hartferit) 1 1 x M50 (Hartferit)
Gehäusematerial Farbe Gewicht	Housingmaterial Colour Weight	GD AL Si 12 Schwarz / Black (RAL 9005) ~600 g

Serie ESH175Z

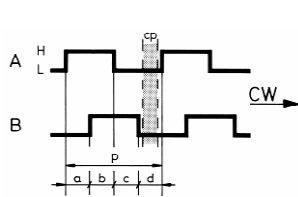


- | | |
|--|-----------------------|
| • Impulse / Pulses
(Feinrasterung / Precision click point) | 100 |
| • Kanäle / Channels | 2 + 4 |
| • Speisespannung / Power supply | 5V DC |
| • Ausgangstreiber / Output driver | Pull up / Line driver |
| • Achswahlschalter / Selector switches for axes | 1...6 |
| • Schrittweitenschalter / Switches for resolution | 1...3 |
| • Zustimmungstaste / Permission switches | Z |
| • Spiralkabel / Helix cable | PUR |
| • Schutzart / Protection | IP 60 |
| • Haftmagnet / Magnetic clamp | Ja / Yes |

Ausgangskanäle / Output channel

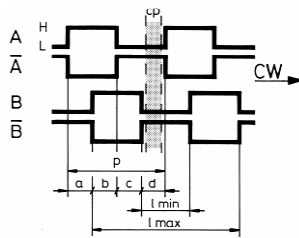
M70

cp = Rasterabstand / Click point



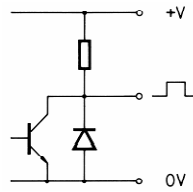
M74

p = Period

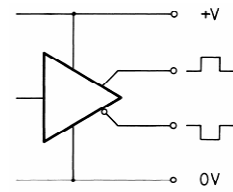


Ausgangstreiber / Output driver

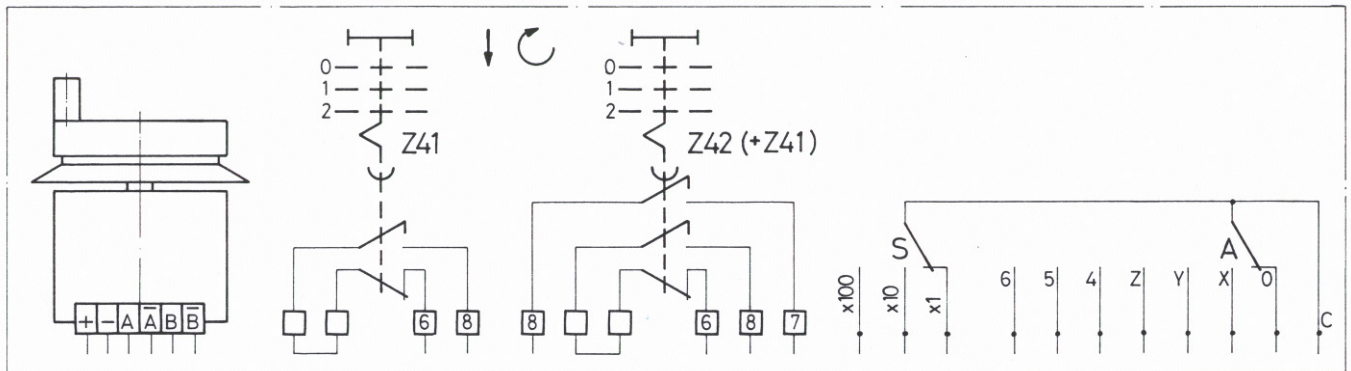
Pull up (2 KΩ intern)



Line driver (RS 422)



Elektrische Anschlüsse / Electrical connection



Manual pulse generator Digitale Wegaufnehmer

Serie ESH175Z

Auswahltable / Selection table	M70	A1...6						S1...3			Z41	Z42									
Anschlüsse / Connection	+	-	A	B			C	0	X	Y	Z	4	5	6	x ¹	x ¹⁰	x ¹⁰⁰	6	8	7	8
ESH175Z.1.1.1.1	8	9	1	2														5	6	-	-
ESH175Z.1.2.1.1	8	9	1	2														5	6	7	10
ESH175Z.1.6.3.1.2.1	8	9	1	2			17		11	12	13	14	15	16	18	3	4	5	6	-	-
ESH175Z.1.6.3.2.2.1	8	9	1	2			17		11	12	13	14	15	16	18	3	4	5	6	7	10

Auswahltable / Selection table	M74	A1...6						S1...3			Z41	Z42									
Anschlüsse / Connection	+	-	A	B	A'	B'	C	0	X	Y	Z	4	5	6	x ¹	x ¹⁰	x ¹⁰⁰	6	8	7	8
ESH175Z.2.1.1.1	8	9	1	2	3	4												5	6	-	-
ESH175Z.2.2.1.1	8	9	1	2	3	4												5	6	7	10
ESH175Z.2.4.3.1.2.1	8	9	1	2	3	4	17		11	12	13	14			18	15	16	5	6	-	-
ESH175Z.2.6.3.2.3.1	8	9	1	2	3	4	17		11	12	13	14	15	16	18	7	10	5	6	19	20

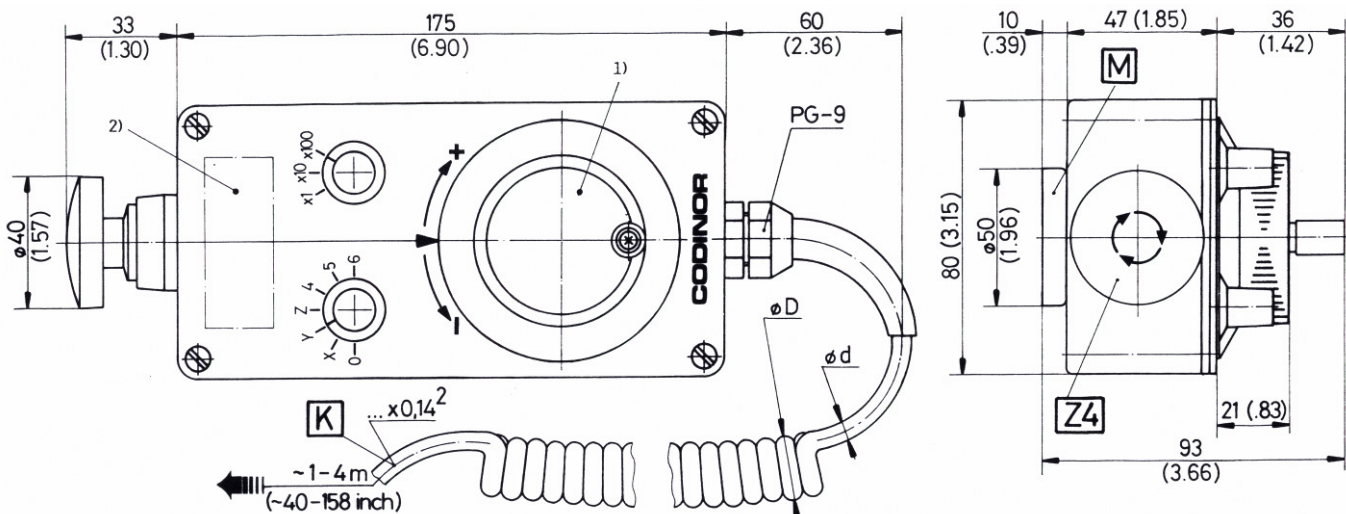
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|-----------------|--------------------------|------------------------------|----------------------------------|
| 1 Weiss / White | 7 Blau / Blue | 13 Weiss-Grün / White-Green | 19 Weiss-Rosa / White-Pink |
| 2 Braun / Brown | 8 Rot / Red | 14 Braun-Grün / Brown-Green | 20 Rosa-Braun / Pink-Brown |
| 3 Grün / Green | 9 Schwarz / Black | 15 Weiss-Gelb / White-Yellow | 21 * Weiss-Blau / White-Blue |
| 4 Gelb / Yellow | 10 Violet / Purple | 16 Gelb-Braun / Yellow-Brown | 22 * Braun-Blau / Brown-Blue |
| 5 Grau / Grey | 11 Grau-Rosa / Grey-Pink | 17 Weiss-Grau / White-Grey | 23 * Weiss-Rot / White-Red |
| 6 Rosa / Pink | 12 Rot-Blau / Red-Blue | 18 Grau-Braun / Grey-Brown | 24 * Braun-Rot / Brown-Red |
| | | | 25 * Weiss-Schwarz / White-Black |

Kabelfarben nach / Cable colour at DIN 47100

* Unbenutzte Anschlüsse sind vor Inbetriebnahme zu isolieren / * Unused terminals should be insulated before initial start-up

Massbild (Zoll in Klammern) **Outline drawing** (inch. in bracket)

Option: ¹⁺²) = Firmen LOGO / Customer LOGO



Serie ESH175Z

Bestelltext Typ Zustimmungstaste (Notstopschalter)	How to order Type Permission switch (emergency stop)	Digitaler Wegaufnehmer ESH175Z. x x x x x x
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Bestellschlüssel (Auswahltabelle)

Typ
Gehäusegrösse 80 x 175 mm
(Alu-Druckguss)
Digitaler Wegaufnehmer

Ausgangstreiber (Kanäle A / B)
Speisespannung
Ausgangstreiber (Kanäle A / B / A' / B')
Speisespannung

Achswahlschalter A
Anzahl Achsen

Schrittweitschalter S
Anzahl Stufen

Zustimmungstaste + (Notstopschalter) Z
Kontakt Typ

Spiralkabel K
Anzahl Adern

Haftmagnet (inkl.)

Gehäusematerial
Farbe
Gewicht

Order key (Selection table)

Type
Housing dimension 3.15 x 6.90 inch
(Alu-diecasting)
Manual pulse generator

Output driver (Channels A / B)
Power supply
Output driver (Channels A / B / A' / B')
Power supply

Switch for axes A
Number of axes

Switch for resolution S
Number of steps

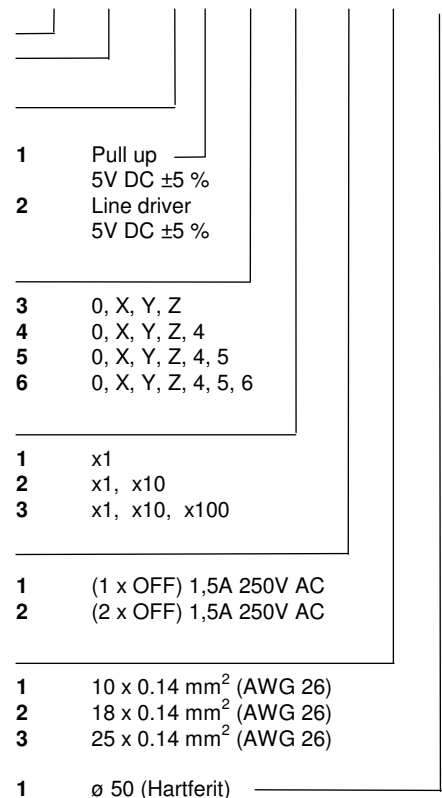
Permission switch + (Emergency stop) Z
Contact type

Helix cable K
Number of lines

Magnetic clamp (incl.)

Housingmaterial
Colour
Weight

ESH175 . x x x x x x



GD AL Si 12
Schwarz / Black (RAL 9005)
~1100 g