

- PROFIBUS-DP interface with PROFIsafe protocol
- Type with hollow shaft
- Functional safety according to
 - EN 61508: SIL CL3
 - EN ISO 13849: PL e
- 13 Bit resolution, 32768 revolutions
- Incremental signals for position feedback, 4096 pulses
- Construction type: Hollow shaft Ø20 H7 with feather keyway
- Degrees of protection: IP54 (labyrinth seal) and IP66 (axial shaft seal)



Electrical Data

Supply voltage	13...27 V DC, SELV/PELV
Current consumption without load	< 150 mA, at 24 V DC
PROFIBUS-DP V0	IEC 61158, IEC 61784; PROFIsafe profile: No. 3.192b
Singleturn resolution	13 Bit (8192 steps/revolution)
Multiturn resolution	15 Bit (32768 revolutions)
Output code	Binary
Additional features	Preset
Incremental output without reference pulse	4096 pulses
Addressing	1...99, adjustable by means of rotary switches
Baud rate	9.6 kbit/s...12 Mbit/s
Huebner specific functions ¹⁾	velocity output in increments/integration time, safe
Safety principle	2 redundant scanning systems with internal cross comparison
Safety of the total system - T₁, proof test - PFH, "High demand" operating mode - PFD_{av} (T = 20 a) - MTTF_d high - DC_{avg} high	20 years $7.88 \cdot 10^{-10}$ 1/h $6.71 \cdot 10^{-5}$ 98 a 98 %
Parameter ¹⁾ - Integration time, safe / unsafe - Size of monitoring window - Standstill tolerance Preset - Direction of counting	50 ms...500 ms / 5 ms...500 ms 50...4000 increments 1...5 increments/integration time, safe Forward, Backward
¹⁾ secured programmable parameter	

Mechanical Data

Mass	approx. 3.1 kg
Mechanically permissible speed - Degree of protection IP54 - Degree of protection IP66	$\leq 4000 \text{ min}^{-1}$ $\leq 2000 \text{ min}^{-1}$
Rotor moment of inertia - Degree of protection IP54 - Degree of protection IP66	approx. 1085 gcm ² approx. 785 gcm ²
Breakaway torque - Degree of protection IP54 - Degree of protection IP66	approx. 2.0 Ncm approx. 2.0 Ncm

Environmental conditions

Vibration resistance, EN 60068-2-6:2008	≤ 100 m/s ² , sine
Shock resistance, EN 60068-2-27:2009	≤ 1000 m/s ² , half-sine
EMC - Immunity to disturbance - Transient emissions	EN 61000-6-2:2005 EN 61000-6-3:2007
Encoder temperature range	-25...+70 °C
Storage temperature	-30 °C...+60 °C, dry
Relative humidity, EN 60068-3-4:2002	98 %, non condensing
Degree of protection, EN 60529:2000 ²⁾	- IP54 with labyrinth seal - IP66 with axial shaft seal

2) valid with screwed on mating connector

Dimension Drawing (HM 13 M 104960)

