

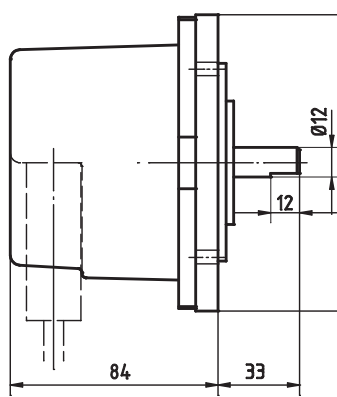


Incremental Encoder OG

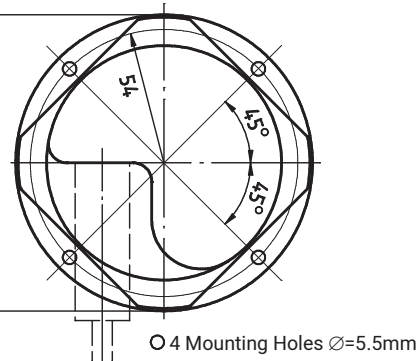
Exact Position Detection under Difficult Conditions

- High operational reliability under difficult conditions
- Long-life mechanical-photoelectric design
- Resolution: 375, 471, 500 or 625 pulses/rev
- Square wave signals A, \bar{A} , B, \bar{B} and reference pulse C, \bar{C}
- Shaft load capacity: Up to 100N radial and 10N axial
- Maximum rotation speed: 5000rpm
- Maximum frequency: 100kHz
- Shaft diameter: 12mm
- Low phase shift, high signal quality
- Output signals with high load capacity at low voltage drop
- With connector plug or 1.5m long connection cable
- maximum cable length (shielded): 100m
- Insensitive to environmental influences
- Extremely robust metal housing, protection class IP65
- Supply voltage: 12V DC

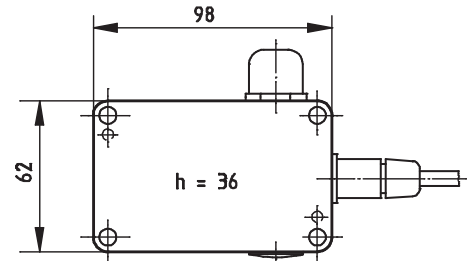
Side View
OG23DxxxN / OG23DxxxQ
OG28DxxxN / OG28DxxxQ



Top View
OG23DxxxN / OG23DxxxQ
OG28DxxxN / OG28DxxxQ

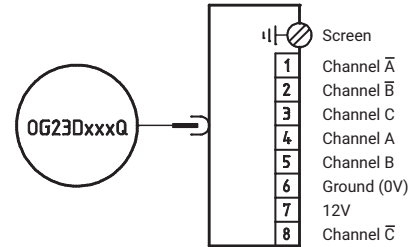


Terminal Box
AK20 / AK303

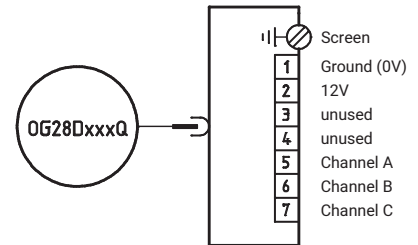


connection terminals in the terminal box:
max. conductor cross-section: 1.5mm²
optimum stripping length: 8mm

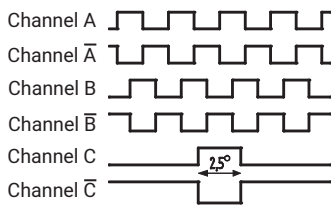
Terminal Box AK20 for OG23DxxxQ:



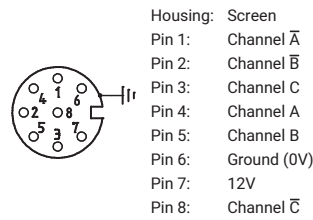
Terminal Box AK303 for OG28DxxxQ:



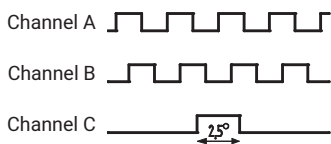
Signal Sequence Channels A, B and C
OG23DxxxN / OG23DxxxQ



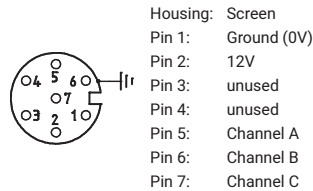
Plug at
OG23DxxxN / OG23DxxxQ



Signal Sequence Channels A, B and C
OG28DxxxN / OG28DxxxQ



Plug at
OG28DxxxN / OG28DxxxQ



Parameter	OG23DxxxN	OG23DxxxQ	OG28DxxxN	OG28DxxxQ
Available Channels (Square Wave Signals A and B, Reference Pulse C)	A, A-bar, B, B-bar, C, C-bar		A, B, C	
Applicable Terminal Box	AK20		AK303	
Connector Plug or Connection Cable with Plug	Plug	1.5m Cable	Plug	1.5m Cable
Connector at Flange Housing or Cable End	M16 8Pin DIN		M16 7Pin DIN	
Sequence of Square Wave Signals A and B	A before B for clockwise rotation (when looking at shaft stub)			
Available Resolutions (Placeholder xxx in Part Designation)	375, 471, 500, 625 pulses/rev			
max. Rotation Speed	5000rpm			
Channels A, B: max. Phase Deviation from 90°	±15°			
Channel C: Length of Reference Pulse	2.5°			
Channels A, B, C: max. Frequency F_{max}	100kHz			
Channels A, B, C: max. Load I_{OUTmax}	24mA			
Channels A, B, C: min. Voltage Level High U_H at 10mA Load	$V_{IN} - 1.3V$			
Channels A, B, C: max. Voltage Level Low U_L at 10mA Load	1V			
Supply Voltage V_{IN}	12V DC (10V to 14V)			
max. Current Consumption I_{INmax}	30mA			
Allowed Ambient Temperature	-10° to +60°C			
Protection Class	IP65			

Explanation to the connection cable:

The maximum permitted cable length is 100m when using a shielded cable. The shielding must be connected on both sides.