

Inclination sensors																page 1/2				rev3.2 20181023			
Family	QG30 E/H series			QG40 E/H series			QG40N				QG40N Redundant		QG65 / QG76 analog										
Measuring range	±10°	±30°	±90°	±10°	±30°	±90°	±10°	±30°	±90°	360°	±90°	360°	±10°	±30°	±90°	360°							
Number of axis	1			2			2		1		1		2		1								
Centering function	no			no			yes				yes		yes										
Redundant	no			no			no				yes, full		no										
Output format	4-20mA   0.5-4,5V			4-20mA   0.5-4,5V			4-20mA / 0.5-4,5V				4-20mA		4-20mA / 0.5-4,5V (also CAN: see page 2)										
Output bandwidth	0 - 10Hz			0 - 10Hz			0 - 10Hz				0 - 10 Hz		0 - 10Hz										
Output function	sinus curve			sinus curve			lineair				lineair		lineair										
Resolution	E-series: 0,03°   H-series: 0,01°			E-series: 0,03°   H-series: 0,01°			0,1°				0,1°		0,01°		0,01°								
Accuracy (typ. @20°C)	0,3°	0,6°	0,9° (-45° .. +45°)	0,3°	0,6°	0,9° (-45° .. +45°)	0,5°				0,5°		0,04°	0,04°	0,08° (-45° .. +45°)	0,07°							
	offset error excluded, 1° typ.			offset error excluded, 1° typ.																			
Temperature coefficient (typ.)	E-series: 0,02°/K   H-series 0,01°/K			E-series: 0,02°/K   H-series 0,01°/K			0,04°/K				0,04°/K		0,005°/K										
Housing material	Plastic PBTP			Plastic PBTP			Plastic PBTP				Plastic PBTB		QG65: Reinforced plastic with steel fiber QG76: Stainless steel										
Size	30x30x15mm			40x40x25mm			40x40x25mm				40x40x25		QG65: 60x50x24mm / QG76: 70x60x33mm										
Temperature range	-25 .. +85°C			-40 .. +85°C			-40 .. +85°C				-25 .. +85°C		-40 .. +85°C										
Protection class	IP67			IP67			IP67				IP67		IP67 / IP68 / IP69K										
Certification	CE			CE, UL			CE, UL				CE		CE / Automotive EMC optional: UL										
Programmable	no			no			Yes, with optional configurator				no		Yes, with optional configurator										
Connection standard	PVC cable 2m			M12 5-pole male			M12 5-pole male				2m PUR cable		M12 male 8p										
Options:	Different output formats (i.e. 0-10V), bandwidths, ranges, cables, connectors etc.																						

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Family	QG65 / QG76 CANopen			QG65X CANopen	QG65N / QG76N CANopen			QG65N / QG76N CANopen Safety SIL CL 2/PLd							
Measuring range	±30°	±90°	360°	360°	±30°	±90°	360°	±30°	±90°	360°					
Number of axis	2		1	1	2		1	2		1					
Switching output	no			no	no			no							
Centering function	yes (CAN object dictionary)			yes (CAN object dictionary)	yes (CAN object dictionary)			yes (CAN object dictionary)							
Redundant	no			no	no			yes, SIL CL 2 / PLd							
Output format	CANopen			CANopen	CANopen			CANopen & CANopen Safety							
Output bandwidth	0 - 10Hz			0 - 10Hz	0 - 10Hz			0 - 10Hz							
Output function	lineair			lineair	lineair			lineair							
Resolution	0,01°			0,001°	0,01°			0,01°							
Accuracy (typ. @20°C)	0,04°	0,06° (-45 .. +45°)	0,06°	0,04° over full Temp. Range (Active Temp. Comp.)	0,09°	0,15° (-45 .. +45°)	0,09°	0,09°	0,15° (-45 .. +45°)	0,15°					
Temperature coefficient (typ.)	0,005°/K			0 (-20° to +60°C)	0,009°/K			0,009°/K							
Housing material	Reinforced plastic steel fiber filled / Alu / Stainless steel														
Size	60x50x24mm / 60x50x27mm / 70x60x33mm														
Temperature range	-40 .. +85°C														
Protection class	IP67 / IP68 / IP69K														
Certification	CE / Automotive EMC optional: UL			CE optional: UL	CE / Automotive EMC / E4 type approval optional: UL			CE / Automotive EMC optional: UL							
Programmable	Yes, via CAN object dictionary														
Connection standard	QG65: M12 5p male (optional + female, internal T-junction). QG76: Gland + cable or optional M12 1x/2x														
Options:	Different CAN default settings, cable with gland, connectors etc.														