

Absolute & Incremental rotary encoders														rev2.0 20160408		
Family	QR30					QR30N			QR40			QR40EMN				
Type	absolute		incremental A/B-pulse			absolute			absolute			absolute				
Style	external magnet, no shaft					external magnet, no shaft			shaft, internal magnet			external magnet, no shaft				
Magnet placing	potting side					nose-side			internal			front				
Magnet distance to sensor	0,1 - 3 mm					0,1 - 5 mm			internal			0,1 - 5 mm				
Centering function	no					no			yes			No				
Redundant	no					no						yes, full				
Measuring range	90°	180°	360°	360° (slow)	360°	90°	180°	360°	90°	180°	360°	90°	180°	360°		
Output format	0-5V		0-5V / PWM		A/B pulse push pull		4-20mA / 0-5V			4-20mA / 0-5V / PWM			4-20mA / 0-5V			
Output response time	10 ms		100ms		< 30.000 rpm		10 ms			10 ms			10 ms			
Resolution	10 bit (step 0,35°) / 12 bit (step 0,09°)				32/64/128/256/1024 PPR		12 bit (step 0,09°)			12 bit (step 0,09°)			12 bit (step 0,09°)			
Non linearity	< ± 1,4°						< ±1°			< ± 1,4°			< ± 1,0°			
Repeatability	0,47° / 0,12°						0,12°			0,12°			0,12°			
Housing material	Plastic PBTP black					Plastic PBTP black			Plastic PBTP black			Plastic PBTP black				
Size	30x30x15mm					30x30x15mm			40x40x22mm			40x40x17mm				
Temp. range	-25 . . +85°C					-25 . . +85°C			-25 . . +85°C			-25 . . +85°C				
Protection class	IP67					IP67			IP66			IP67				
Certification	CE, optional UL					CE, optional UL			CE, optional UL			CE, optional UL				
Connection standard	PVC cable 2m					PVC cable 2m			PVC cable 2m			M12 5-pole				
Options:	Different output formats, measuring ranges, cables, connectors etc.															