

CRAFTSMAN CRIBSHEET

G-code Macro Relational and Logical Operators by Controller

By David Wynn, Director of Technical Services & Industry Affairs, PMPA

Category	Operator/ Keyword	Meaning	FANUC Macro B	Haas	Okuma	Mitsubishi
Relational	EQ	Equal to	Supported	Supported	Supported	Supported
Relational	NE	Not equal to	Supported	Supported	NE (<> In some controls)	Supported
Relational	GT	Greater than	Supported	Supported	Supported	Supported
Relational	LT	Less than	Supported	Supported	Supported	Supported
Relational	GE	Greater than or equal to	Supported	Supported	Supported	Supported
Relational	LE	Less than or equal	Supported	Supported	Supported	Supported
Logical	AND	Logical AND	Supported	Supported	Supported	Supported
Logical	OR	Logical OR	Supported	Supported	Supported	Supported
Logical	XOR	Exclusive OR	Optional/ varies	Supported	Not Supported	Optional/ varies
Remainder	MOD	Modulo (remainder)	MOD[] function	MOD	MOD[] function	MOD[] function

Notes: Exact availability can vary by software version and options. Some controllers require logical operations to be executed inside brackets []. It is important to understand that most controllers use text-based operators to denote logical operations because traditional symbols are reserved within controllers for other operations. Keyword “=” is reserved for variable assignment in most controllers so we use EQ. 