5 STANDARD FUNCTIONS/FUNCTION BLOCKS

5.1 Standard Functions

Type conversion functions

Converting BOOL to WORD/DWORD

Function symbol	Description	Reference
BOOL_TO_WORD	Converts BOOL type data to WORD type data.	Page 1204
BOOL_TO_WORD_E		
BOOL_TO_DWORD	Converts BOOL type data to DWORD type data.	Page 1206
BOOL_TO_DWORD_E		

Converting BOOL to INT/DINT

Function symbol	Description	Reference
BOOL_TO_INT	Converts BOOL type data to INT type data.	Page 1207
BOOL_TO_INT_E		
BOOL_TO_DINT	Converts BOOL type data to DINT type data.	Page 1208
BOOL_TO_DINT_E		

Converting BOOL to TIME

Function symbol	Description	Reference
BOOL_TO_TIME	Converts BOOL type data to TIME type data.	Page 1209
BOOL_TO_TIME_E		

Converting BOOL to STRING

Function symbol	Description	Reference
BOOL_TO_STRING	Converts BOOL type data to STRING type data.	Page 1210
BOOL_TO_STRING_E		

Converting WORD to BOOL

Function symbol	Description	Reference
WORD_TO_BOOL	Converts WORD type data to BOOL type data.	Page 1211
WORD_TO_BOOL_E		

Converting WORD to DWORD

Function symbol	Description	Reference
WORD_TO_DWORD	Converts WORD type data to DWORD type data.	Page 1212
WORD_TO_DWORD_E		

Converting WORD to INT/DINT

Function symbol	Description	Reference
WORD_TO_INT	Converts WORD type data to INT type data.	Page 1213
WORD_TO_INT_E		
WORD_TO_DINT	Converts WORD type data to DINT type data.	Page 1214
WORD_TO_DINT_E		

Converting WORD to TIME

Function symbol	Description	Reference
WORD_TO_TIME	Converts WORD type data to TIME type data.	Page 1216
WORD_TO_TIME_E		

Converting DWORD to BOOL

Function symbol	Description	Reference
DWORD_TO_BOOL	Converts DWORD type data to BOOL type data.	Page 1217
DWORD_TO_BOOL_E		

Converting DWORD to WORD

Function symbol	Description	Reference
DWORD_TO_WORD	Converts DWORD type data to WORD type data.	Page 1218
DWORD_TO_WORD_E		

Converting DWORD to INT/DINT

Function symbol	Description	Reference
DWORD_TO_INT	Converts DWORD type data to INT type data.	Page 1220
DWORD_TO_INT_E		
DWORD_TO_DINT	Converts DWORD type data to DINT type data.	Page 1222
DWORD_TO_DINT_E		

Converting DWORD to TIME

Function symbol	Description	Reference
DWORD_TO_TIME	Converts DWORD type data to TIME type data.	Page 1223
DWORD_TO_TIME_E		

Converting INT to BOOL

Function symbol	Description	Reference
INT_TO_BOOL	Converts INT type data to BOOL type data.	Page 1224
INT_TO_BOOL_E		

Converting INT to WORD/DWORD

Function symbol	Description	Reference
INT_TO_WORD	Converts INT type data to WORD type data.	Page 1225
INT_TO_WORD_E		
INT_TO_DWORD	Converts INT type data to DWORD type data.	Page 1226
INT_TO_DWORD_E		

Converting INT to DINT

Function symbol	Description	Reference
INT_TO_DINT	Converts INT type data to DINT type data.	Page 1228
INT_TO_DINT_E		

Converting INT to BCD

Function symbol	Description	Reference
INT_TO_BCD	Converts INT type data to BCD type data.	Page 1229
INT_TO_BCD_E		

Converting INT to REAL

Function symbol	Description	Reference
INT_TO_REAL	Converts INT type data to REAL type data.	Page 1231
INT_TO_REAL_E		

Converting INT to TIME

Function symbol	Description	Reference
INT_TO_TIME	Converts INT type data to TIME type data.	Page 1232
INT_TO_TIME_E		

Converting INT to STRING

Function symbol	Description	Reference
INT_TO_STRING	Converts INT type data to STRING type data.	Page 1233
INT_TO_STRING_E		

Converting DINT to BOOL

Function symbol	Description	Reference
DINT_TO_BOOL	Converts DINT type data to BOOL type data.	Page 1235
DINT_TO_BOOL_E		

Converting DINT to WORD/DWORD

Function symbol	Description	Reference
DINT_TO_WORD	Converts DINT type data to WORD type data.	Page 1236
DINT_TO_WORD_E		
DINT_TO_DWORD	Converts DINT type data to DWORD type data.	Page 1238
DINT_TO_DWORD_E		

Converting DINT to INT

Function symbol	Description	Reference
DINT_TO_INT	Converts DINT type data to INT type data.	Page 1239
DINT_TO_INT_E		

Converting DINT to BCD

Function symbol	Description	Reference
DINT_TO_BCD	Converts DINT type data to BCD type data.	Page 1241
DINT_TO_BCD_E		

Converting DINT to REAL

Function symbol	Description	Reference
DINT_TO_REAL	Converts DINT type data to REAL type data.	Page 1243
DINT_TO_REAL_E		

Converting DINT to TIME

Function symbol	Description	Reference
DINT_TO_TIME	Converts DINT type data to TIME type data.	Page 1244
DINT_TO_TIME_E		

Converting DINT to STRING

Function symbol	Description	Reference
DINT_TO_STRING	Converts DINT type data to STRING type data.	Page 1245
DINT_TO_STRING_E		

Converting BCD to INT/DINT

Function symbol	Description	Reference
BCD_TO_INT	Converts BCD type data to INT type data.	Page 1247
BCD_TO_INT_E		
BCD_TO_DINT	Converts BCD type data to DINT type data.	Page 1249
BCD_TO_DINT_E		

Converting REAL to INT/DINT

Function symbol	Description	Reference
REAL_TO_INT	Converts REAL type data to INT type data.	Page 1251
REAL_TO_INT_E		
REAL_TO_DINT	Converts REAL type data to DINT type data.	Page 1253
REAL_TO_DINT_E		

Converting REAL to STRING

Function symbol	Description	Reference
REAL_TO_STRING	Converts REAL type data to STRING type data (exponent format).	Page 1255
REAL_TO_STRING_E		

Converting TIME to BOOL

Function symbol	Description	Reference
TIME_TO_BOOL	Converts TIME type data to BOOL type data.	Page 1258
TIME_TO_BOOL_E		

Converting TIME to WORD/DWORD

Function symbol	Description	Reference
TIME_TO_WORD	Converts TIME type data to WORD type data.	Page 1259
TIME_TO_WORD_E		
TIME_TO_DWORD	Converts TIME type data to DWORD type data.	Page 1260
TIME_TO_DWORD_E		

Converting TIME to INT/DINT

Function symbol	Description	Reference
TIME_TO_INT	Converts TIME type data to INT type data.	Page 1261
TIME_TO_INT_E		
TIME_TO_DINT	Converts TIME type data to DINT type data.	Page 1262
TIME_TO_DINT_E		

Converting TIME to STRING

Function symbol	Description	Reference
TIME_TO_STRING TIME_TO_STRING_E	Converts TIME type data to STRING type data.	Page 1263

Converting STRING to BOOL

Function symbol	Description	Reference
STRING_TO_ BOOL STRING_TO_ BOOL_E	Converts STRING type data to BOOL type data.	Page 1265

Converting STRING to INT/DINT

Function symbol	Description	Reference
STRING_TO_INT STRING_TO_INT_E	Converts STRING type data to INT type data.	Page 1266
STRING_TO_DINT STRING_TO_DINT_E	Converts STRING type data to DINT type data.	Page 1268

Converting STRING to REAL

Function symbol	Description	Reference
STRING_TO_REAL STRING_TO_REAL_E	Converts STRING type data to REAL type data.	Page 1270

Converting STRING to TIME

Function symbol	Description	Reference
STRING_TO_TIME STRING_TO_TIME_E	Converts STRING type data to TIME type data.	Page 1273

Converting bit array to INT/DINT

Function symbol	Description	Reference
BITARR_TO_INT BITARR_TO_INT_E	Converts a bit array to INT type data for a specified number of bits.	Page 1274
BITARR_TO_DINT BITARR_TO_DINT_E	Converts a bit array to DINT type data for a specified number of bits.	Page 1275

Converting INT/DINT to bit array

Function symbol	Description	Reference
INT_TO_BITARR INT_TO_BITARR_E	Outputs low-order (n) bits of INT type data to a bit array.	Page 1276
DINT_TO_BITARR DINT_TO_BITARR_E	Outputs low-order (n) bits of DINT type data to a bit array.	Page 1277

Bit array copy

Function symbol	Description	Reference
CPY_BITARR CPY_BITARR_E	Copies specified number of bits of a bit array.	Page 1278