

# SIEMENS

## Product data sheet

## 6ES7221-1EF22-0XA0



SIMATIC S7-200,  
EM 221 DIGITAL INPUT MOD.,  
OPTICALLY ISOLATED 8DI, 120/230V AC,

|   |                                    |
|---|------------------------------------|
| <b>Input current</b>                                  |                                    |
| from backplane bus 5 V DC, max.                       | 30 mA                              |
| <b>Power losses</b>                                   |                                    |
| Power loss, typ.                                      | 3 W                                |
| <b>Digital inputs</b>                                 |                                    |
| Number/binary inputs                                  | 8                                  |
| Input characteristic curve acc. to IEC 61131, Type 1  | Yes                                |
| <b>Input voltage</b>                                  |                                    |
| Type of input voltage                                 | AC                                 |
| Rated value, AC                                       | 230 V ; 220/230 V AC (47 to 63 Hz) |
| for signal "0"  | up to 20 V AC                      |
| for signal "1"  | 79 V AC or more                    |
| <b>Input current</b>                                  |                                    |
| for signal "1", typ.                                  | 2.5 mA                             |
| <b>Input delay (for rated value of input voltage)</b> |                                    |

|   |                   |
|---|-------------------|
| for standard inputs                                 |                   |
| at "0" to "1", max.                                 | 15 ms             |
| Cable length  |                   |
| Cable length, shielded, max.                        | 500 m             |
| Cable length unshielded, max.                       | 300 m             |
| Encoder   |                   |
| Connectable encoders                                |                   |
| 2-wire sensor                                       | Yes               |
| Permissible quiescent current (2-wire sensor), max. | 1 mA              |
| Galvanic isolation                                  |                   |
| Galvanic isolation digital inputs                   |                   |
| Galvanic isolation digital inputs                   | Yes ; Optocoupler |
| between the channels, in groups of                  | 1 ; (8 groups)    |
| Connection method                                   |                   |
| Plug-in I/O terminals                               | Yes               |
| Dimensions  |                   |
| Width   | 71.2 mm           |
| Height  | 80 mm             |
| Depth   | 62 mm             |
| Weight  |                   |
| Weight, approx.                                     | 160 g             |
| Status  | Jul 17, 2012      |