

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES5375-0LD21

16 KB RAM MEMORY SUBMODULE

Used with the applicable SIMATIC S5 MS375 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens technical documentation for 6ES5375-0LD21

SIMATIC S5

**S5-115H
Programmable Controller**

Manual

Edition 03

EWA 4NEB 811 6111-02b

4 Configuring the I / Os

This section describes the various I / O configurations (redundant, switched, single-channel) for the S5-115H programmable controller. Particular emphasis is placed on redundant I / Os and their connection, which are discussed in detail in Section 4.4. Section 4 also describes standard function block FB 252, which is used for redundant analog value input.

The information presented in this section should be studied carefully, as it is of particular importance as regards configuring and operating your I / O modules.

4.1 Overview

The S5-115H programmable controller supports three different I / O modes: single-channel, switched and redundant. These modes can be combined in one S5-115H. Each I / O can be configured separately.

Single-channel I / Os:

The I / O module is assigned to **one** of the two subunits. When this subunit fails, so do the I / Os assigned to it. The degree of availability is thus no higher than that of an S5-115U. The I / O modules can be plugged into either the central controller (CC) or an expansion unit (EU).

Switched I / Os:

The I / O module can be driven by **either of the two** central controllers. This mode gives the user increased availability compared with the S5-115U.

Redundant I / Os:

The I / O module is allocated the **same** address in **both** subunits. This mode gives the user the highest availability, since the failure of a central controller or an I / O module can be tolerated ("Non-stop operation"). The modules can be plugged into either the central controller (CC) or an expansion unit (EU).

Note:

In an S5-115H, it is possible to combine all three modes, i.e. single-channel, switched and redundant.

4.1.1 I / O Types

When digital / analog I / Os and CPs / IPs are configured over COM 115H, each process signal handled by the operating system is assigned a specific type number.

This type number identifies

- the type of signal, i.e. digital, analog, input, output, CP, IP and
- the mode, i.e. single-channel, switched or redundant

The Table below lists all configurable I / O types.

Also observe the information presented in the "COM 115H" operator's guide.

Table 4-1. Configurable I / O Types

Type No.	Description		Availability
1	DI byte	single-channel	Standard (S5-115U)
2	DI byte	switched	Enhanced
3	DI byte	redundant	High
8	DQ byte	single-channel	Standard
9	DQ byte	switched	Enhanced
10	DQ byte	redundant	High
13	AI channel	single-channel	Standard
14	AI channel	switched	Enhanced
15	AI channel	redundant	High
18	AQ channel	single-channel	Standard
19	AQ channel	switched	Enhanced
20	AQ channel	redundant	High
24	CP / IP	single-channel	Standard
25	CP / IP	switched	Enhanced