monitor FIFO_semaphore {
    int s = 0;  ## s >= 0
    cond pos;    # signaled when s > 0

    procedure Psem() {
        if (s == 0)
            wait(pos);
        else
            s = s - 1;
    }

    procedure Vsem() {
        if (empty(pos))
            s = s + 1;
        else
            signal(pos);
    }
}

Figure 5.3  FIFO semaphore using passing the condition.