

... the far end of Ethernet

- Digital in- and outputs at the Ethernet in IP65-box
- Two serial interfaces, see details about hardware und software at ETH-A7-2SER
- Digital inputs:
 - 4 opto-decoupled inputs 24V
- Isolated digital outputs:
 - 2 relay changer 6A@24V
 - 2 relay closer 3A@24V
- nodeAccess for direct I/O-access from Windows[®] PCs
- mCAT Express-I/O is able to provide the inputs as a counter
- mCAT-Server-Pages (mSP) opens I/O functions for the webbrowser
- Express-I/O access for local tasks, e.g. for socket interfaces
- All terminals over cage clamps
- Separate +24V/ground terminals for external units
- Insulating plate prevents trackcontact
- Accesses are marked on the insulating plate - clamps are blank for your own inscription
- Optionally remote control with PoE - therewith isolated interfaces

relay ethernode[®] offers 4 digital inputs and 4 isolated contacts at the Ethernet as well as two serial interfaces an one optional LCD.

This page only points out the special I/Os of the ETH-A7x-3A4IO. You find the basics at [ethernode](#) as well as at [ethernode LCD](#) for the LCD version. The details of the serial interfaces of every version is described at [ETH-A7x-2SER](#).

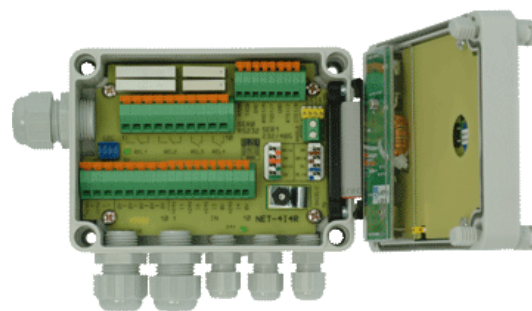
Even the first internet application served the convenience: It showed the fill level of the coffee pot in the laboratory's kitchen. And there are many applications where the Ethernet saves efforts or where it boosts the security of a company by continuous control. But there are many locations where a computer is not only too expensive, but also too big and where it might be hard to feed it with power supply. Here ethernode is a small, well mountable and well-priced alternative.

ETH-A7-414R has got 4 digital 24V inputs on an optocoupler which interconnect when you a tension over about 18V. So you can use simple clamps which you admit 24V. These 24V are available at the cage clamp beside every input and they are feeded either by the external 24V power supply or - at the [PoE option](#) - by the Ethernet cable from the PoE switch.

To achieve really isolated outputs relays are still essential. 414R has got 4 relays and - for lack of space - only two of them are executed as changer. Since ethernode assumes that all clamps and users can be connected without intermediate terminal blocks, the needed clamps limit the space in the box. The two changers switch 6A at 24V d.c. voltage and they can work with voltages up to 60V. The sourcing capability declines explicitly down to 0,3A at 60V. At alternating voltage there is no loss of efficiency of the 6A up to the - for reason of isolation - maximum permissible tension of 48V. The two relays with closer are able to switch 3A at 24V d.c. voltage or up to 48V alternating voltage and they have at d.c. voltage a decline down to 0,25A at 60V.

Software

For adressing the serial interfaces please see [ETH-A7x-2SER](#). The inputs and relays are similarly multifaceted adressable:



Order codes:



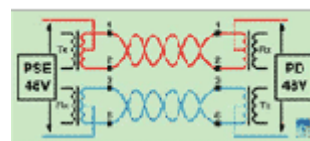
ETH-A7-414R 299.- € *

plain ethernode A7. I/O: 1x RS232, 1x RS232/485



ETH-A7L-414R 369.- € *

ethernode A7L with graphic LCD and membrane keyboard. I/O: 1x RS232, 1x RS232/485



PoE 39.- € *
option

PoE remote control option (Power-over-Ethernet) for ethernode. Produces isolated voltages 5V and 24V of the 48V voltage provided from the PoE switch. Order codes with PoE: ETH-A7-414R<POE bzw. ETH-A7L-414R<POE

* all prices ex works (+VAT/MwSt inside Germany)

If you wish an autarc function of ETH-A7-414R, you have to programm your [application task in C](#) and to load it with the aid of the mCat monitor SYSMON at first into the RAM and later on into the flash on the ethernode-A7-CPU. Process in- and outputs of mCat are available with convenient I/O functions with `in(...)` and `out(...)` macros, the so-called Express-I/O. If you want to communicate with other tasks, send and receive messages e.g. of SerDrv for serial periphery. The Ethernet communication usually runs over the [Socket-Interface](#).

You can access all in- and outputs that are supported by Express-I/O directly from a Windows[®] PC over our [nodeAccess™-DLL](#). Therefor no programming on ethernode is required, but though you do not achieve an autonomous functionality in case of a breakdown of the Ethernet

The access to ETH-A7-414R over its [Web-Interface](#) is very universal. You can design one or more pages with your favourite HTML editor and interlace mSP instructions into these pages. mSP are "mCAT-Server-Pages" instructions that are replaced at the access time by a browser of the mCat webserver by for example the current state value of a digital input. For the relays you have to define buttons or check boxes wherewith the over mSP linked output is switched.

The 414R versions of ethernode[®] and ethernode[®] LCD respectively can get remote powered by the IEEE802.3af [Power-over-Ethernet technologie](#) of course, too. Therefor you only need the corresponding mains adapter.