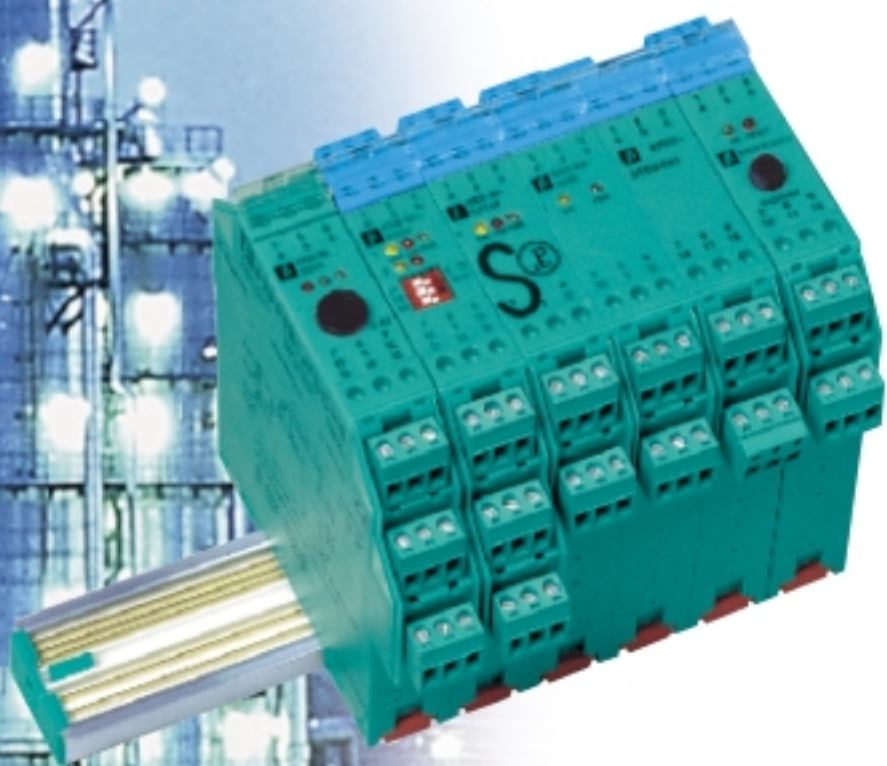




PROCESS AUTOMATION

K-SYSTEM

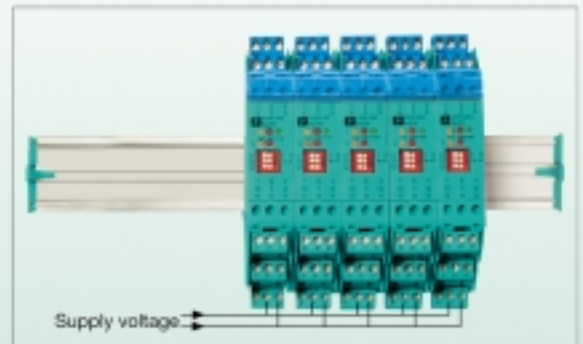
PRODUCT OVERVIEW



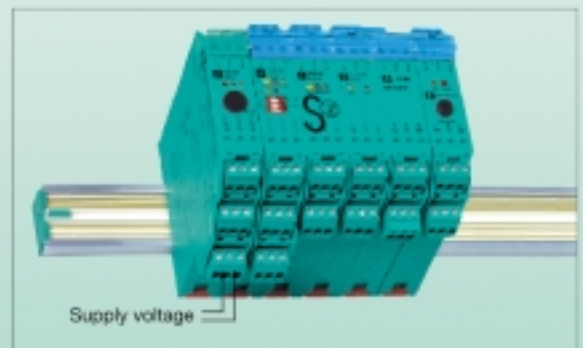
THE SYSTEM STRUCTURE

... provides a flexible system of assembly, from single device applications to systems controlling many signals

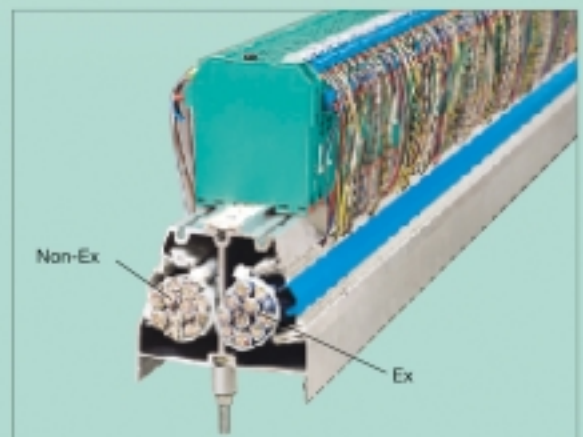
Individual and grouped assembly on the standard rail



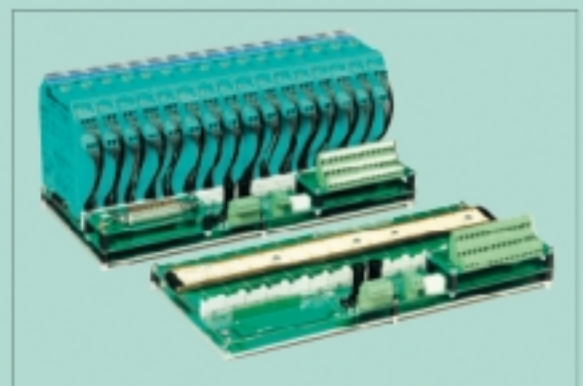
... or installation on the standard rail, with power rail and centralised power supply incorporating group fusing



... or with the KF profile, with up to 90 function modules and a choice of pre-assembled connection options



... or with a pre-assembled mother board for up to 16 function modules, ready for plugging-in the control system I/O card.



THE K-SYSTEM —

One system, a multitude of applications!

With its convincing advantages - from the planning stage, through to the operation of your plant - our K-System guarantees a reliable and economic transfer of signals between the field devices and the control system. The flexible, application-oriented installation options - from individual isolating modules, through to solutions for

the construction of large systems - typify the K-System. The associated galvanically isolated field circuits are devised such that they are intrinsically safe. For areas in which this is not required, the K-System also offers cost-effective solutions without Ex-protection.

System mechanics

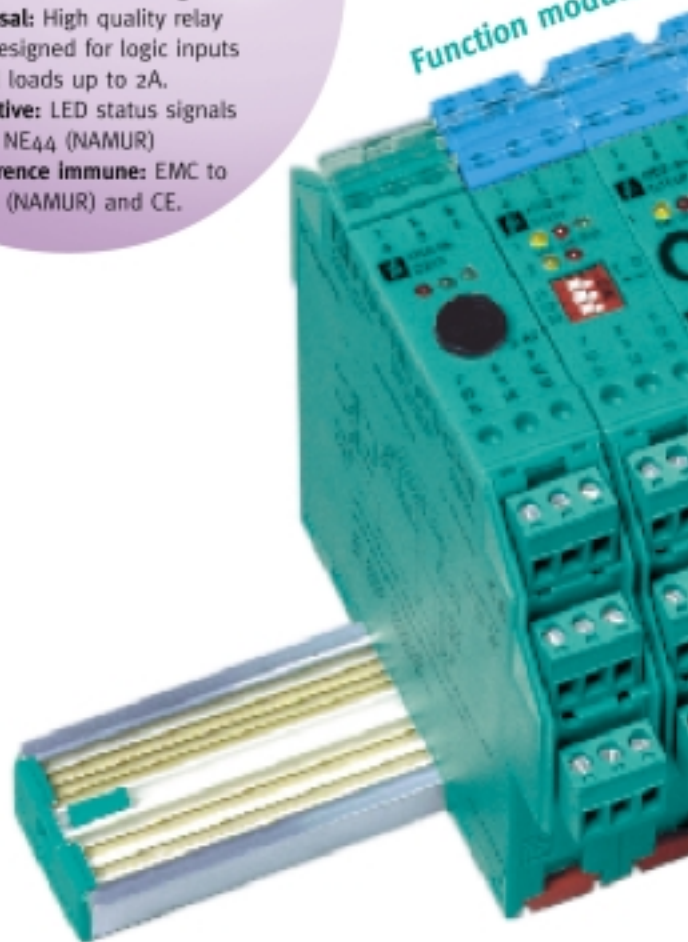
- **Convenient:** DIN rail housings with Plug-in screw terminals
- **Takes thick and thin:** Suitable for wiring cross-sections up to 2.5 mm²
- **Saves time and cost:** Voltage supply and centralised fault indication via the power rail
- **With safety:** Flame retardant to UL94; V-0.
- **Compact:** Standard housing width just 20 mm
- **Adaptable:** No ventilation slots needed, so module blocks can be mounted in any position.
- **From hot to cold:** The K-System operates from -20 to 60°C

System electrics

- **Available:** Power supply modules for redundant supply of the power rail
- **Safe transmission:** All interface modules have galvanically isolated control circuits
- **Reliability:** Minimum power loss in cool control cabinets and high life
 - **Universal:** High quality relay outputs, designed for logic inputs and loads up to 2A.
 - **Informative:** LED status signals to NE44 (NAMUR)
 - **Interference immune:** EMC to NE21 (NAMUR) and CE.

Function modules

- **Flexibility and economy:** Graduated, optimum cost installation technique, from the mounting of individual units, through groups with power rail supply, to plug-in system solutions with motherboards.
- **Clear structure:** Group fusing and fault contact in the power supply module for the power rail
 - **Space saving:** Mounting section with integrated cable channels (KF profile)
 - **All voltages:** Supply voltage, standard 24 V DC or 115/230 V AC
- **Easy servicing:** Removable terminal connectors for optimum service without cable coding. Tried and trusted electro-mechanics combined with the most up-to-date electronics.



NOVEL FEATURES

non-Ex

Economic solutions:

Isolating modules and transmitter isolators without Ex protection – with all the advantages of the K-System

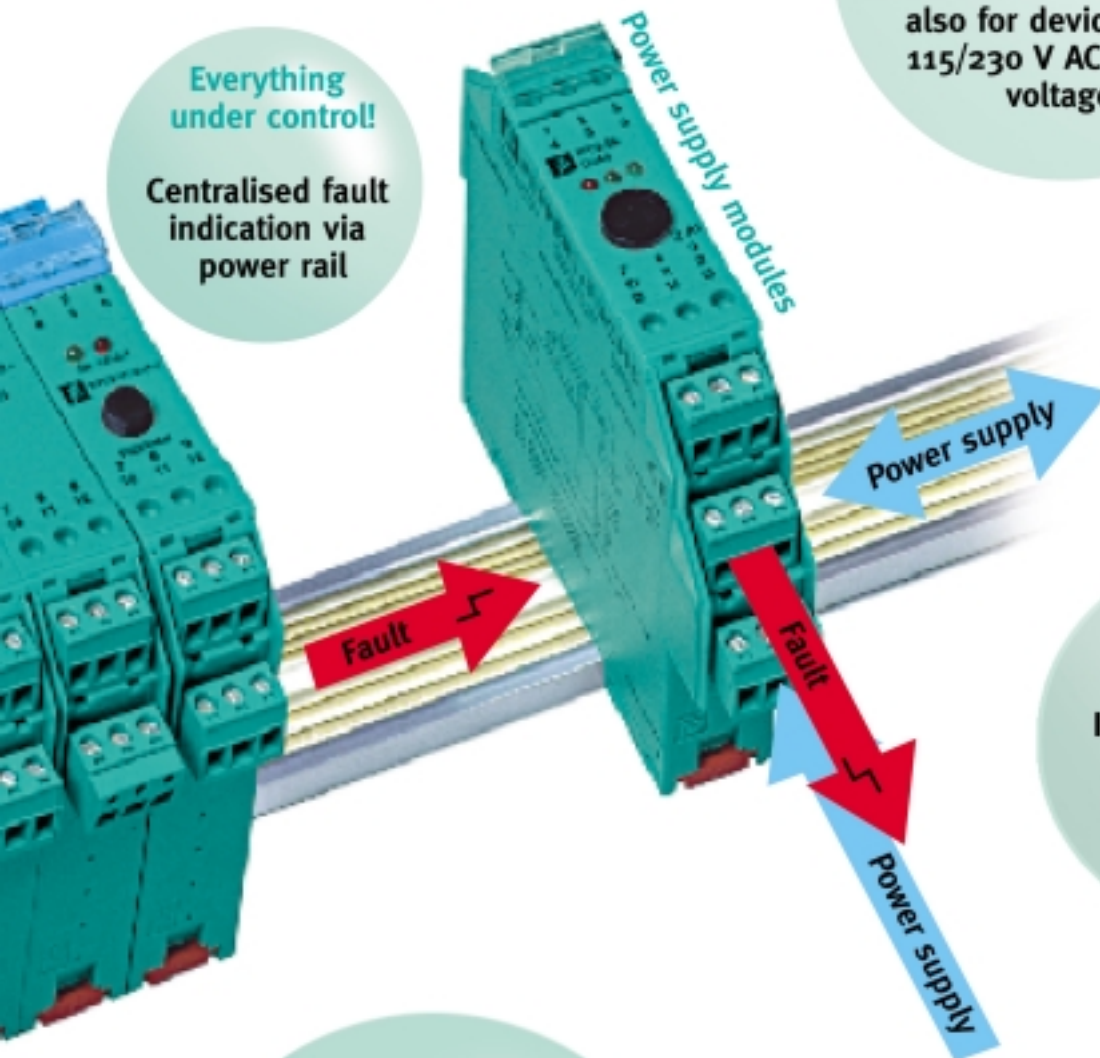


Easy to service - also when supplied via the connector socket:

Removable terminals now also for devices with 115/230 V AC supply voltage

Everything under control!

Centralised fault indication via power rail

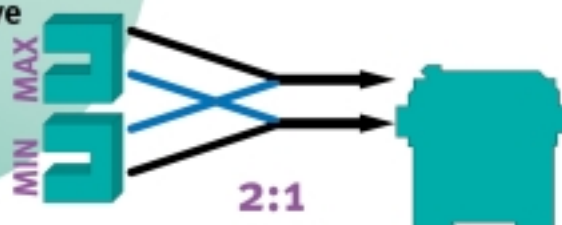


Cost effective:

Isolating modules and transmitter isolators without auxiliary power

Minimal field cabling:

Up to 30 % less cabling due to the transfer of the binary signals via one cable. The patented 2:1 technique is ideal, for example, for MIN/MAX manometers, valve end position signals, etc.

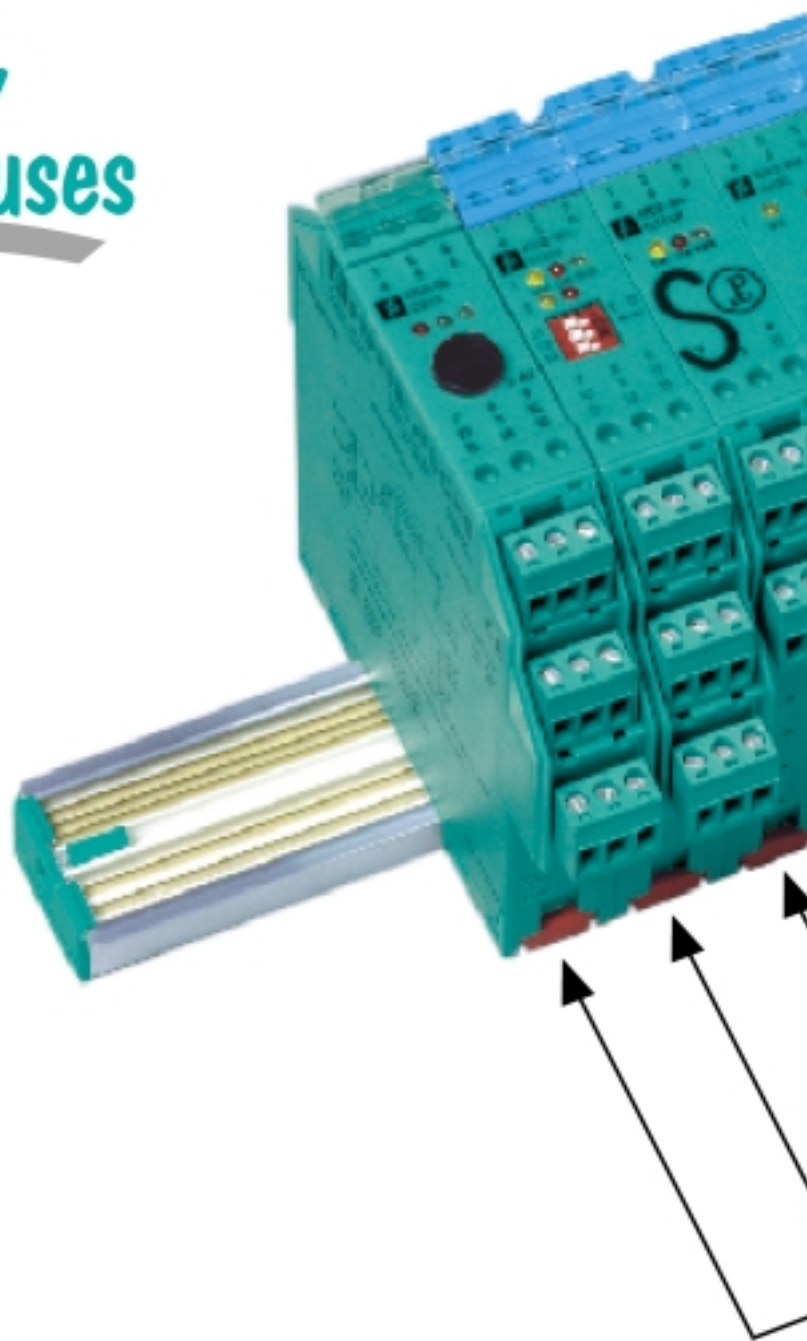


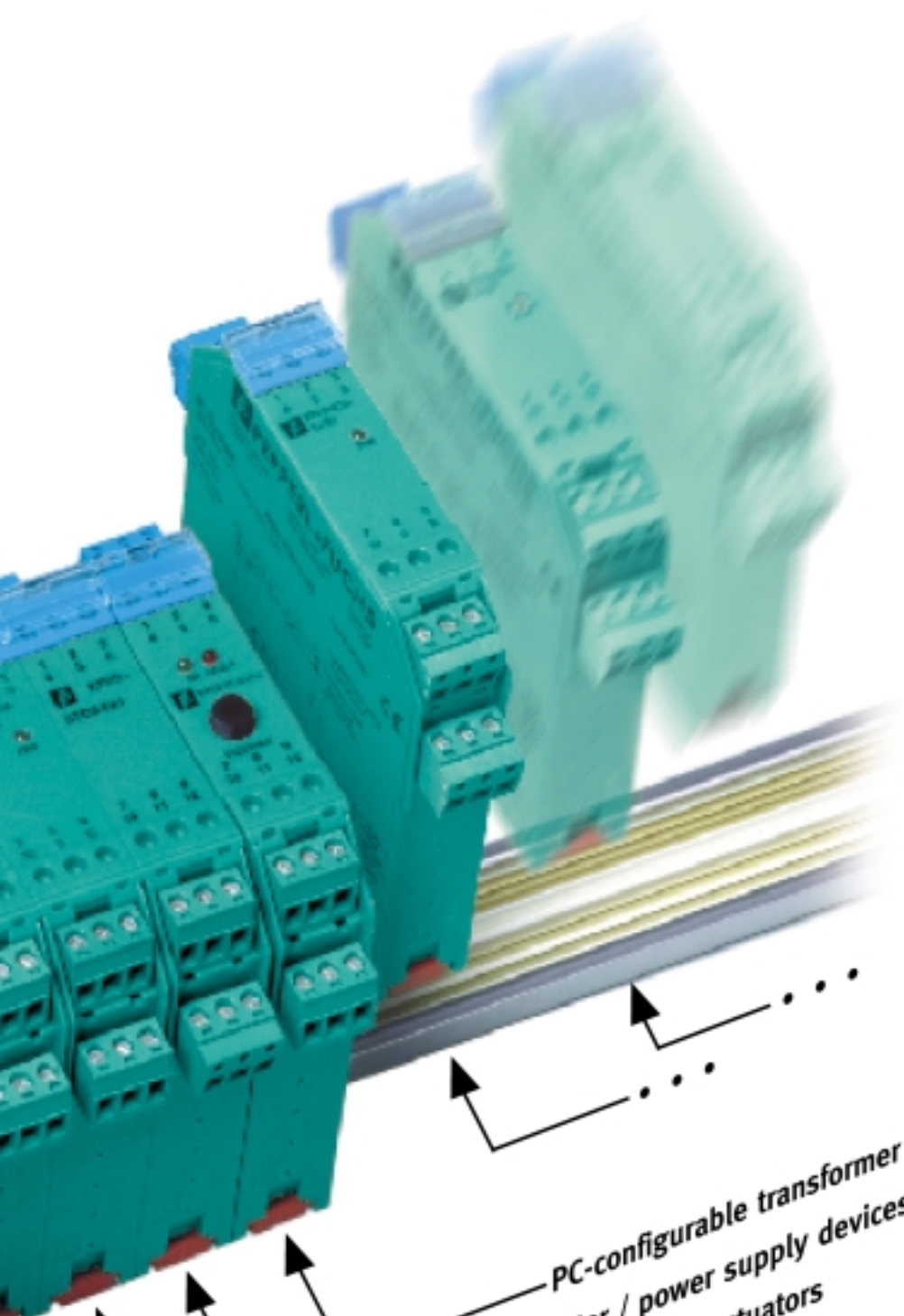
THE K-SYSTEM

Plug-in assembly

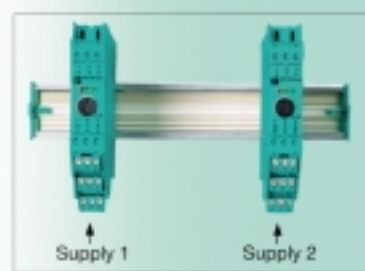
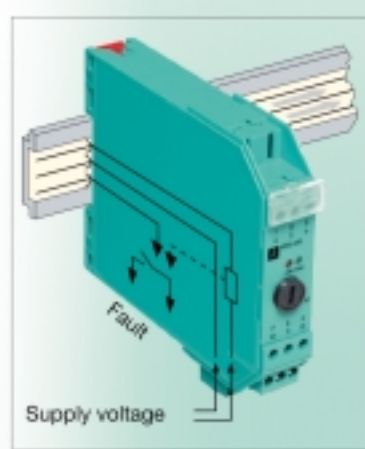
Snap-on and it's ready!
Voltage supply and
centralised fault indication
via the power rail,
safely secured on the
standard rail
- it couldn't be easier!

...one system,
with many uses





- Power supply modules
- Switch isolating amplifiers
- fail-safe switch isolation transformers
- Isolating transformers for actuators
- Transmitter / power supply devices
- PC-configurable transformer isolators



Removable terminals

The removable terminals permit rapid connection / replacement of modules since, as a rule, lead identification is not required. The self-opening terminals can be used to attach conductors of up to 2.5 mm² in cross-

section. Wire entry funnels and screwdriver guides ease the task. The connectors are coded to avoid incorrect connection.

With power rail - less wiring required

The power rail is simply inserted in the standard rail (DIN EN 50022). It is the solution to connection and power supply problems when installing and wiring terminal modules on the rail. Two conductors are used for power supply. The terminal modules are automatically connected to the

power supply when they are snapped onto the standard rail - and thus onto the power rail. The supply no longer needs to be through-looped from module to module. The additional conductor transfers the signal from the centralised alarm system.

Power supply "inclusive of fusing"

If your system has a 24 V DC power supply, the power rail supply module can be used to supply the power rail directly. A green LED on the front of the module indicates that power is available. The series-connected module group is fitted with a 4 A fuse.

An alarm contact is provided to indicate a defective fuse and provide a centralised alarm, for example on lead breakage in a field circuit. The duplicated terminals enable the supply voltage to be easily through-looped.

Security if the power fails

Is greater security required for the power supply? A redundant power supply can be achieved by using the special power supply modules.

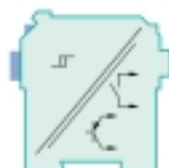
Power packs

If a 24 V DC supply is not available for your system, simply replace the power supply with a K-System power pack.

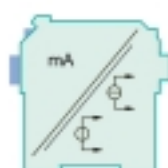
THE FUNCTIONMODULES



Isolating amplifiers
Relay and transistor output



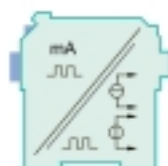
Transmitter
Power supply devices



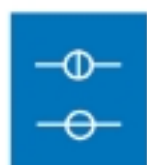
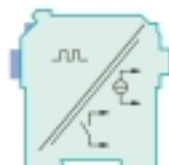
Isolating amplifiers
in fail-safe technology
TÜV-tested up to AK6
to DIN 19250



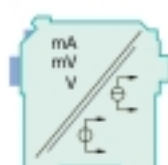
SMART Transmitter
Power Supply devices



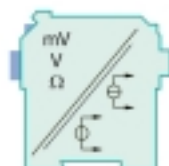
Pulse evaluation units



Current and voltage sources



Transmitter isolators



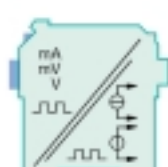
Isolating transformers



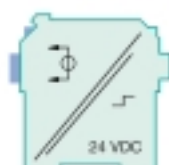
Trip amplifiers



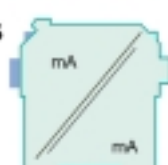
SMART Isolating transformers



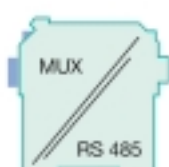
Valve control modules



**Isolating transformers
for fire alarms**



HART® Multiplexers
On-line communication
for up to 7936 transmitters



**Isolating transformers
for vibration sensors**



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