

MOELLER



We keep power under control.

EasyConnect SmartWire



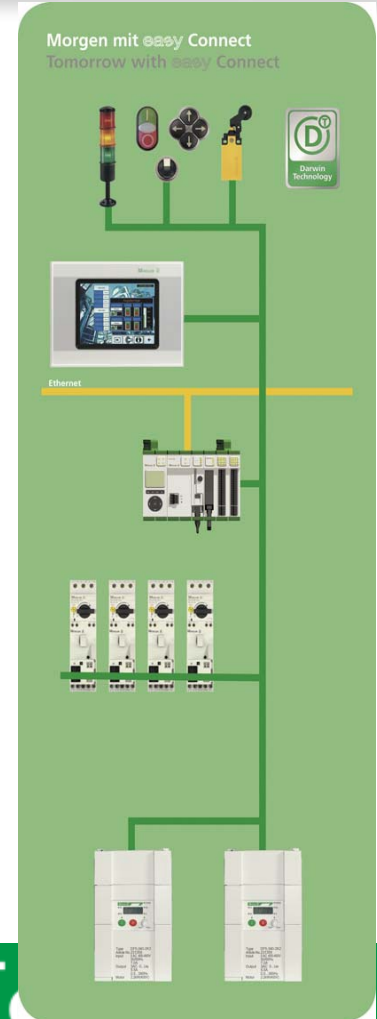
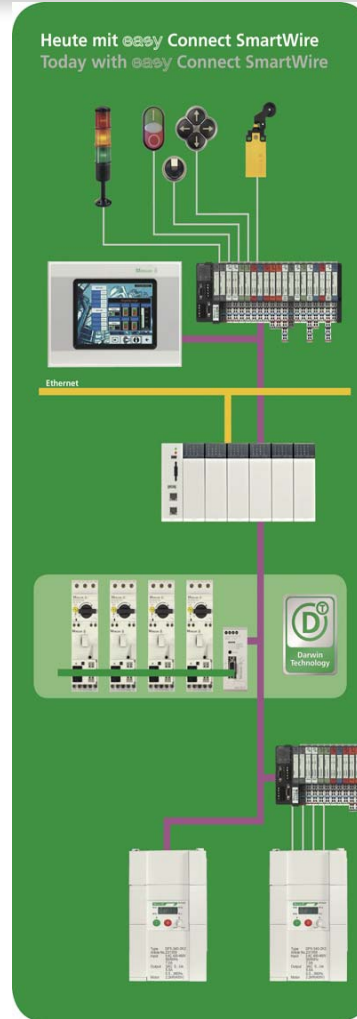
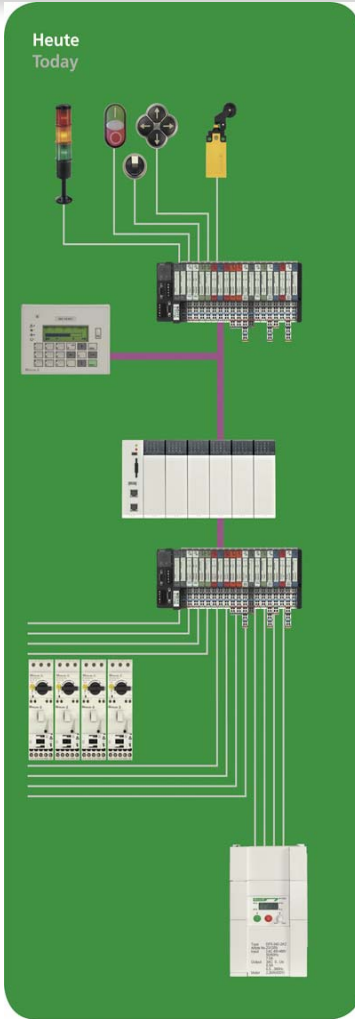
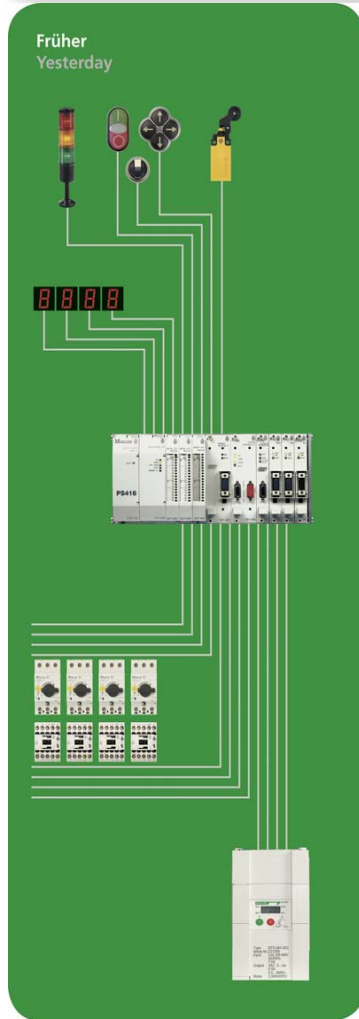
MOELLER



We keep power under control.

Darwin

Evolution in panel building





Darwin

easyConnect



Control

Drives

Motor
starter

MCCB

Command
and indication

Less wiring by moving the I/O to the contactor

Today : Expensive wiring to the I/O of the PLC



PLC xyz

Moeller PLC



NOW : Simple wiring and moving the I/O to the contactor

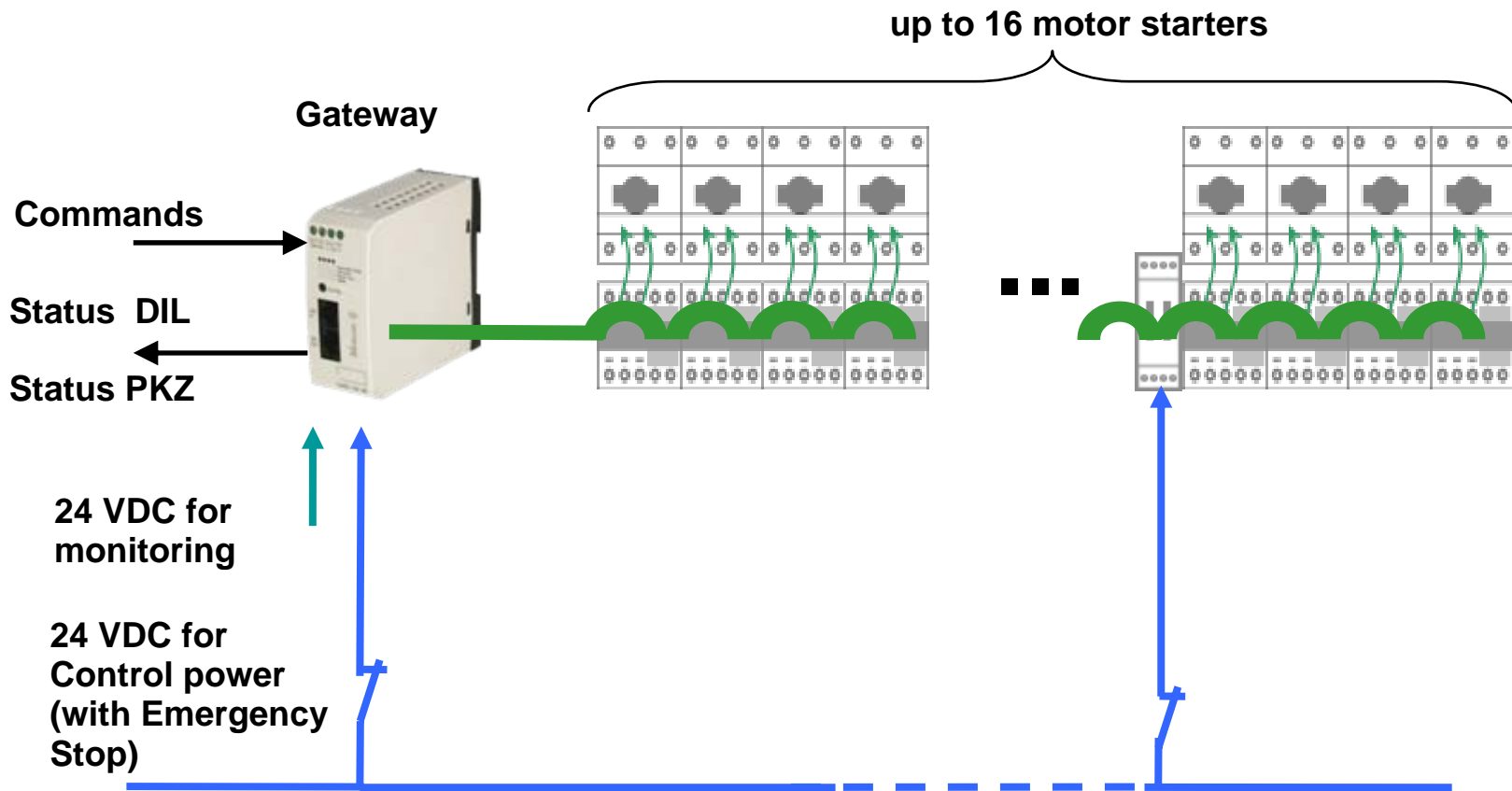
Profibus DP

easynet
CANopen



We keep power under control.

System overview



Schutzvermerk ISO 16016 beachten

EasyConnect SmartWire for motor starter

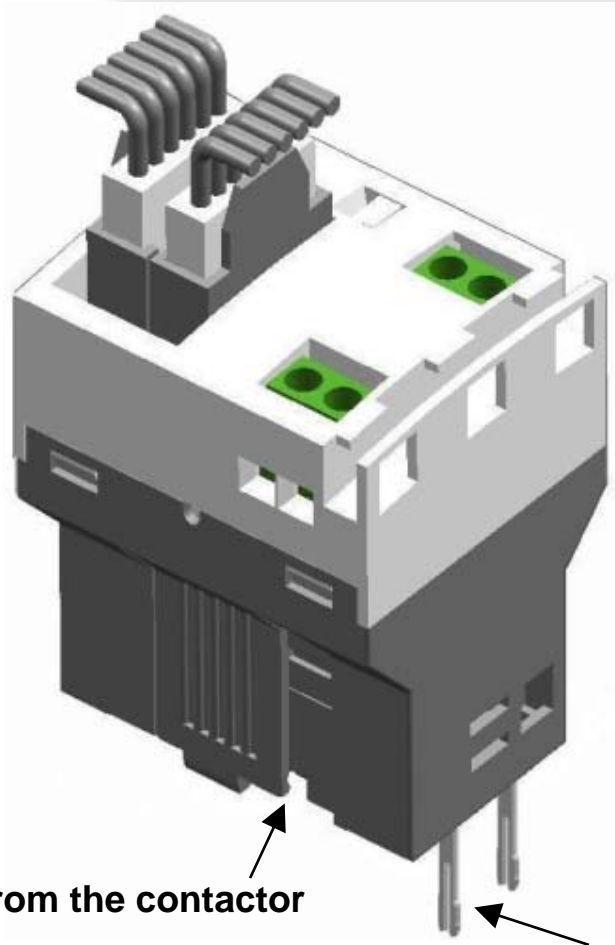


SmartWire
„Connect, don't wire!!“



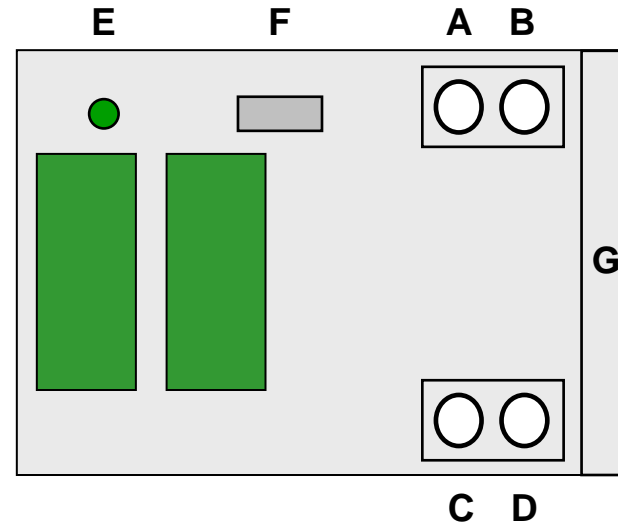
Schutzvermerk ISO 16016 beachten

Solution : SmartWire Module for DILM



Status from the contactor

Control contactor coil



- A, B :** Monitoring NHI-E-PKZ0
(Switch-on condition for DIL)
- C, D :** Interlocking the contactor coil
- E :** LED Ready (green)
- F :** Indication contactor status (mech.)
- G :** Cable guide

Connector is transmitting I/O data and power

24 VDC for the contactor coil (3A)

Power for supply of the electronic and monitoring (e.g. NHI)



Command for the contactor



Monitor messages „DIL ON“ and free signal (e.g. NHI of the PKZ)

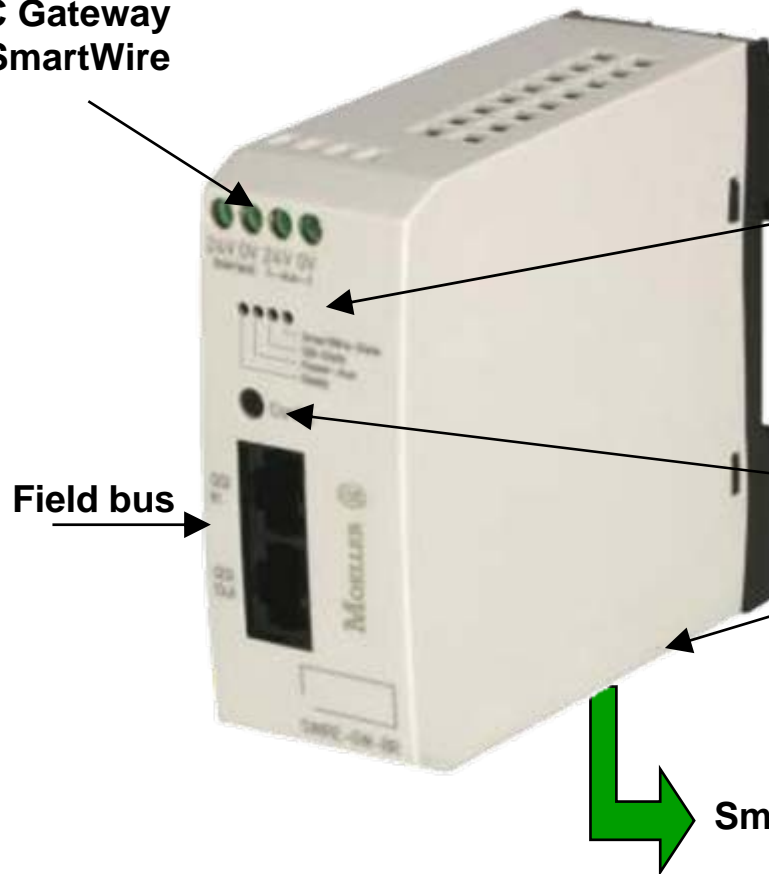
Gateways

24 VDC Gateway
24 VDC SmartWire

PROFI
BUS

CANopen

easy-NET



LED:

- Status Field bus
- Status SmartWire
- Power SmartWire
- Ready

Auto addressing

DIP-Switch for

- Address at PROFIBUS DP
- easy-NET/CANopen selection
- Node-ID at CANopen

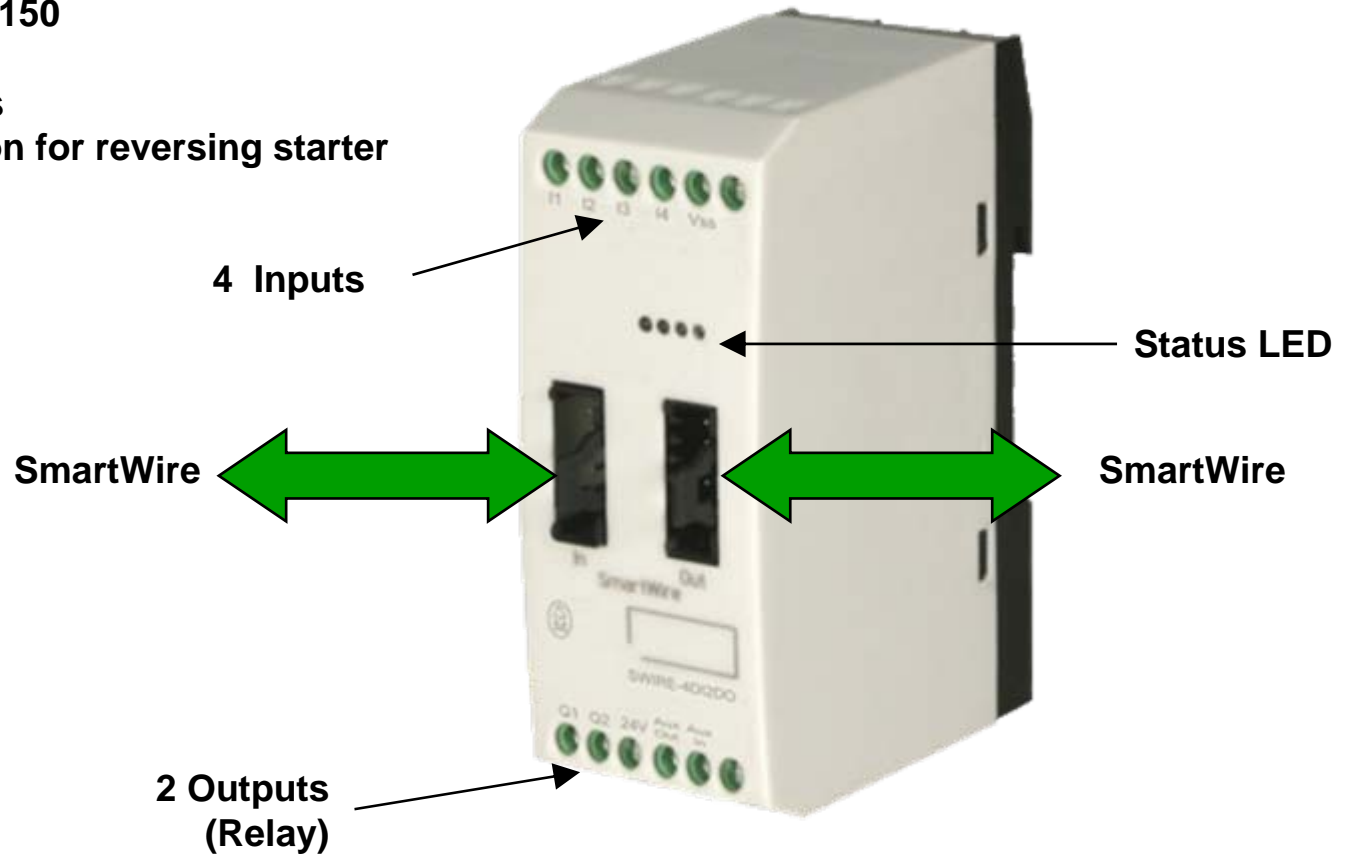
SmartWire

Field bus

SmartWire I/O Module

Applications for:

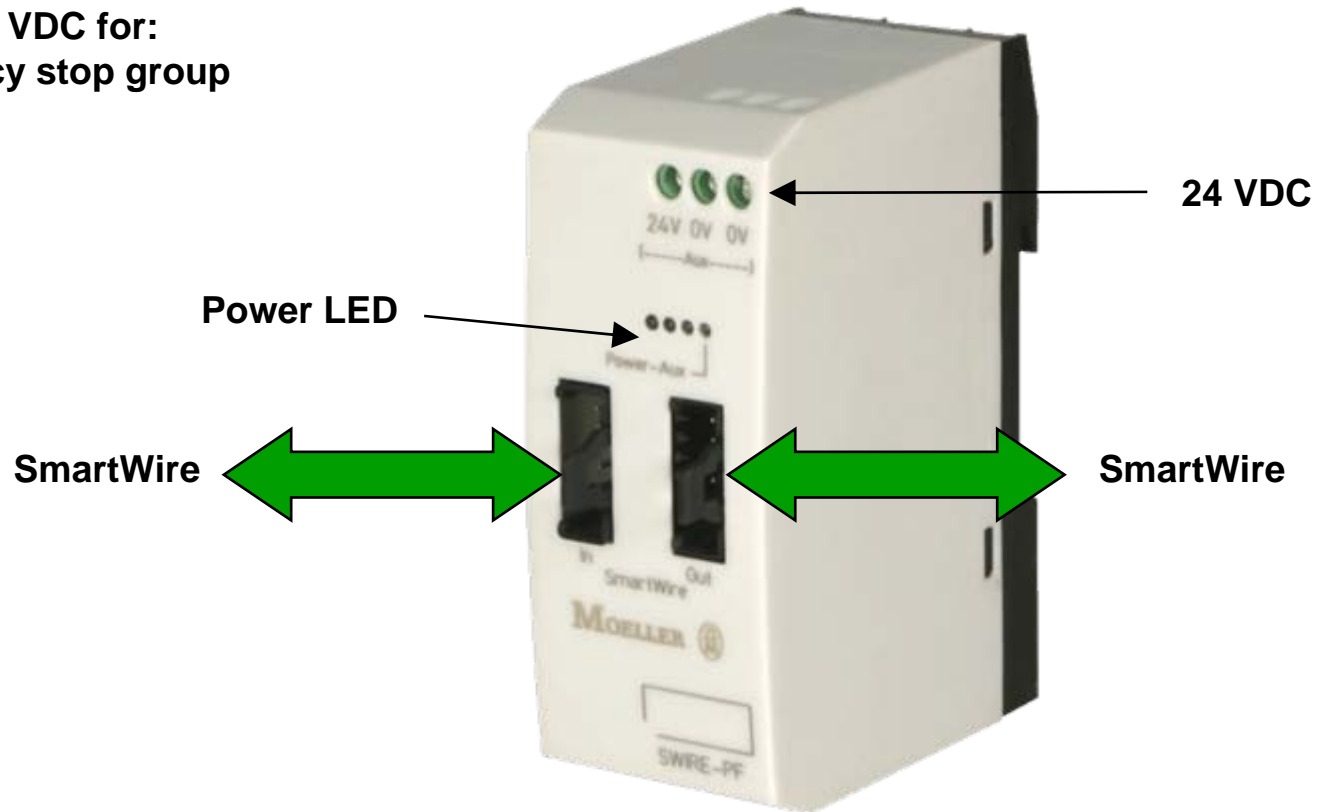
- DIL M 40 to DIL M 150
- SGL
- Solid-State-Relays
- Alternative solution for reversing starter
- other digital I/O



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Power Module

Power supply 24 VDC for:
- new emergency stop group
- Re-powering



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Communication system

- **Up to 16 units per gateway**
- **Automatic configuration**
- **Length max. 4 m**
- **Powering the electronic from the gateway (independent of the emergency stop)**
- **Powering the contactor coil is integrated**
- **Failure of one unit has no impact to the other units**
- **Exchange of any unit by disconnecting the communication line**
- **Response times :**
 - **20 ms for commands (all motor starter simultaneously)**
 - **50 ms for status messages (typical value for 8 motor starter)**
 - **80 ms for status messages (worst case for 8 motor starter)**

Field bus connection without I/O



easy-NET

CANopen

Command DIL

Status PKZ

Status DIL

Gateway



MSC with PKZM0

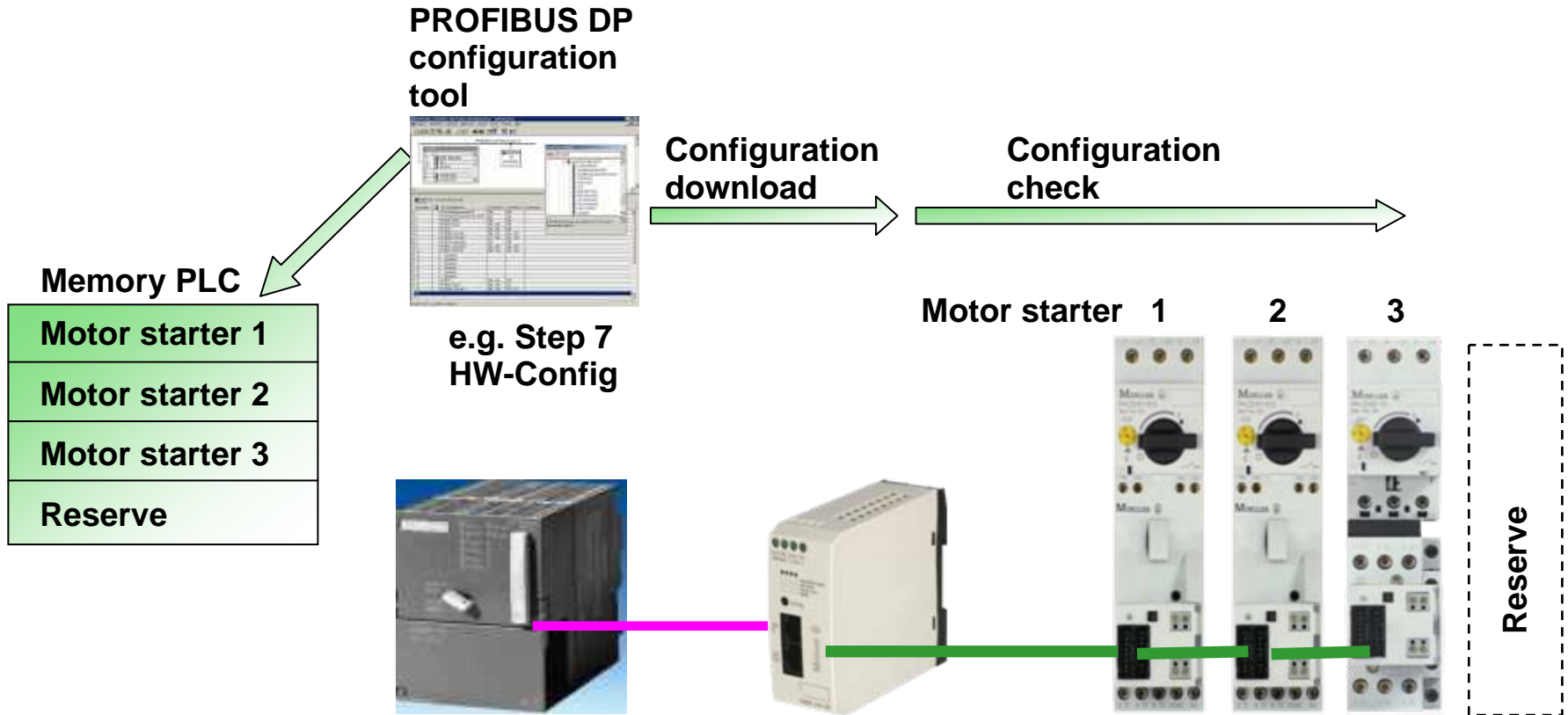
**SmartWire Module
for DILM up to
15 kW**



1 DO / 2 DI :

- Command,
- Status DIL
- Status NHI PKZ

Configuration for PROFIBUS DP



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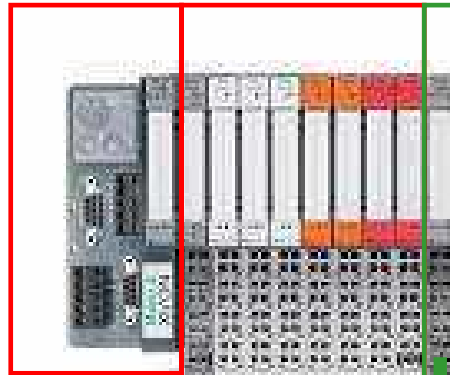
Field bus connection with additional I/O

PROFI
BUS

DeviceNet

CANopen

Gateway I/O slices



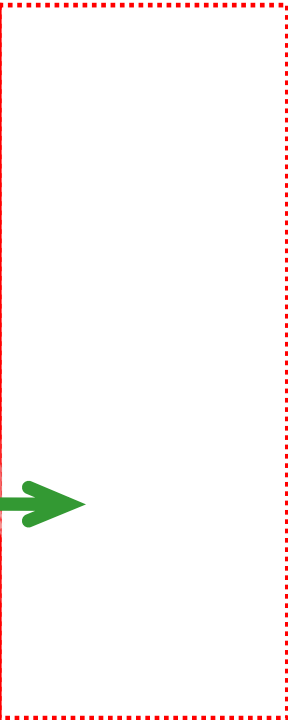
Interface for SmartWire

Motor starter



MSC with PKZM0 +
SmartWire Module for DILM

For future extensions



The kit for all solutions



Components



Motor starter

Save mounting space and wiring of the main circuit



Motor starter with SmartWire Module

Control circuit-wiring and save PLC I/O



Motor starter with SmartWire Module + Component-adapter for busbar

Reduce wiring of the control circuit and main circuit



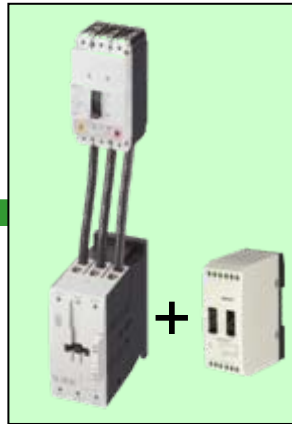
Remote I/O + Motor starter with SmartWire

Plug and play for I/O and Motor starter

SmartWire Switchgear applications



**Motor starter
size I & II**



**Motor starter
size III & IV
+ SGL**



**Motor starter
at Busbar-
systems**



MCCB



Soft starter

Schutzvermerk ISO 16016 beachten

SmartWire Products

Order number	Name of the item	Description	
106950	easy223-SWIRE	easy-NET/SmartWire Gateway	
107590	XNE-1SWIRE	XI/ON SmartWire Slice	
107027	SWIRE-GW-DP	PROFIBUS DP/SmartWire Gateway	
107028	SWIRE-DIL	Module for DILM	
107029	SWIRE-PF	Power module	
107030	SWIRE-4DI-2DO-R	I/O module 4DI-2DO Relay	
107031	SWIRE-CAB-000	Termination plug	
107032	SWIRE-CAB-008	Cable 8,5cm	
107033	SWIRE-CAB-011	Cable 11cm	
107034	SWIRE-CAB-015	Cable 15cm	
107035	SWIRE-CAB-025	Cable 25cm	
107036	SWIRE-CAB-100	Cable 100cm	
107037	SWIRE-CAB-200	Cable 200cm	
107038	SWIRE-CAB-100m	Cable 100m	
107039	SWIRE-CAB-CON	SmartWire plug	

Abstract II



- Use **standard devices** and device accessories (DIL + PKZ)
- **Substitution** of the **control wiring**
- **Simplification** of the **design** and the **documentation** with less terminals
- **Less trunking** in the switchboard



Abstract III



- **Quick mounting and commissioning** with toolless plug connection and snap on SmartWire Module for DILM
- Use of **all accessories** for the xStart system
- **Retro-fitting** for all contactors of the xStart line
- **Free I/O** for connection to the system (e.g. incoming breaker)



SmartWire
„Connect, don't wire!!“



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EasyConnect SmartWire



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