

■ GENERAL

ProSafe-COM is a generic term for the functionality that deals with communication between the external world and ProSafe-SLS.

The main objectives are:

- Presentation of the safety system status and diagnostics to DCS or other equipment.
- Ability to write in the safety system (overrides).
- Sequence of event recording; keep track of all events in ProSafe-SLS on millisecond basis.
- Provide power for attached ProSafe-COM interface modules.
- Execution of non-safety logic.
- ModBus Master capability.
- Analogue value scaling.
- Local printer.

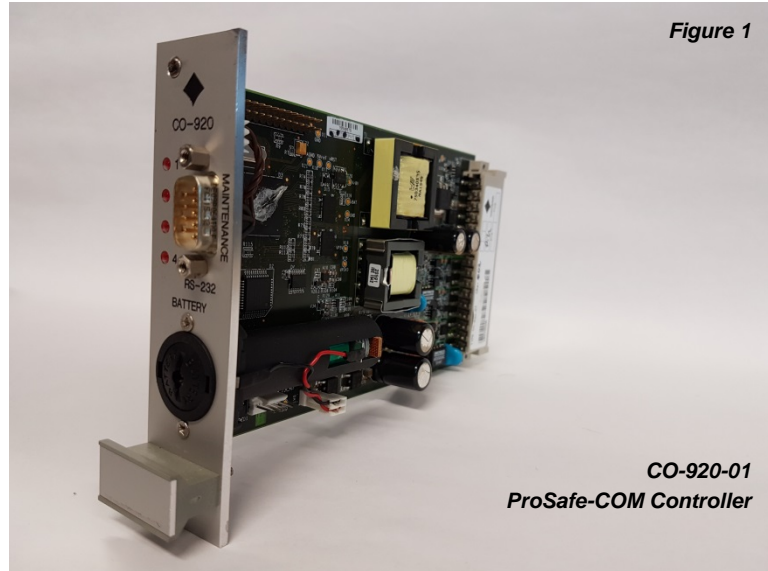


Figure 1

CO-920-01
ProSafe-COM Controller

The module is equipped with 3 serial ports that run the standard and extended ModBus protocol for status and event retrieval and for override commands. One of the serial communication links (COM 1) is RS-232 and can be used for module configuration and maintenance. The port can also be used as an additional ModBus port. The other serial communication links (COM 2, COM 3) are RS-485 (2 wire) or RS-422 (4-wire) bus connections.

The module comprises a dedicated Local Network Control interface that interrogates the ProSafe-SLS network modules for status and events.

The module software is configured and driven using a configuration file and a tag file. Features are soft-marshalling: use of logical addresses on the DCS interface. Each communication channel can have a different physical to logical address mapping.

Event filtering: events can be generated per tag and per communication channel.

Every analogue value can be scaled to different scales.

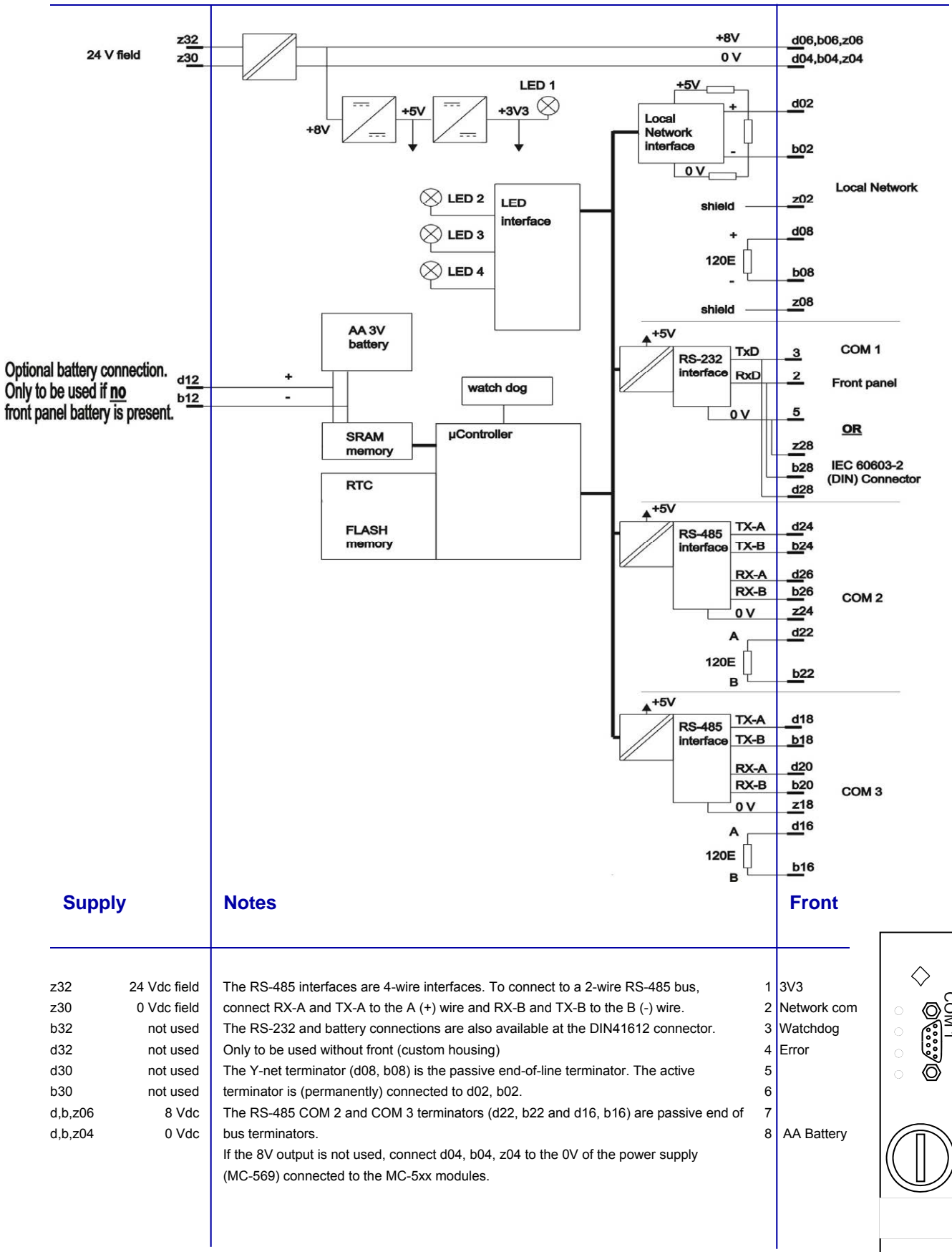
A COM port can be configured as a ModBus Master to communicate with ModBus slaves

A local printer can be connected to a COM port to print system status and events.

The CO-920-01 has the ability to run a logic program, usually for non-safety logic like first failure detection and for operator's matrix panel control and annunciation.

FUNCTIONAL DIAGRAM

Inputs Module Outputs



■ SPECIFICATIONS

Description		Data
General	Interfaces	3 serial ports (COM1 for maintenance) 1 local network controller interface
	Width	6HP
	Identification	CO-920 on front en more detailed on connector label
	Weight	265 gram
Input	Serial interface	COM 1: 4800 – 57600 Baud RS-232 COM 2 and COM 3: 4800 – 57600 Baud RS-485
	Local network	Enhanced RS-485, 250.000 Baud
Output	Serial interface	See Input
	Supply	Communication modules supply
	Voltage	8 Vdc \pm 0.5 V
	Current	Max. 1 A
	Power indication	Red LED
	Local network active	Red LED
	Watchdog	Red LED
Supply	Field supply	24 Vdc \pm 25% Max. 1 V top-top ripple 110 mA with 24 Vdc, no load 510 mA with 24 Vdc, full load
	Dissipation	3 W

NOTES