Intro to COM Series

COM is a name of communication converters that make communication of our controllers easier.There are two types of COM converters; one is for communication level converter and the other is a communication protocol converter. Please select whichever is suitable for your applications.

COMMUNICATION LEVEL CONVERTER
COM-A : RS-232/422 Converter
COM-B : RS-232/485 Converter
(For use with MS-DOS only)

COMMUNICATION PROTOCOL CONVERTER

COM-K2
COM-K is USB communication converter for RKC products (Communication function : RS-422A or RS-485).

- **Based on USB Ver. 2.0**
- **Bus power (The power is supplied from the USB port on the PC**   side.)
  - **Based on RS-485, EIA standard**
  - **Based on RS-422A, EIA standar**

COM-G
Converts protocols between RKC standard/ANSI and Profibus.

Converts the protocol used in RKC controllers (REX-F, CB series, SA200, LE100) into the Profibus-DP protocol. This makes RKC controllers work as a slave of Profibus-DP.

COM-H
This is a communication protocol converter between SR Mini multi-loop controllers and PLC that are connected via DeviceNet, andconverts protocols between RKC standard/ANSI and DeviceNet.

Profibus-DP: is used in time-critical applications between an automation system and distributed devices (remote I/O, inverter, etc.). Profibus-DP is also defined as IEC61158 and EN50170.

DeviceNet is a low-cost industrial network to connect industrial devices such as limit switches, photoelectric cells, valve manifolds, motor starters, drives, and operator displays to PLCs and PCs. The network eliminates expensive hard-wiring while providing device-level diagnostics. ODVA is the organization that manages the DeviceNet technology and promotes the worldwide adoption of DeviceNet in industrial automation.

BACKGROUND INFORMATION				
Fieldbus Name	**Technology Developer**	**Year Introduced**	**Governing Standard**	**Openness**
PROFIBUS DP/PA	Siemens	DP-1994, PA-1995	EN 50170 / DIN 19245 part 3(DP) /4 (PA), IEC 1158-2 (PA)	ASICs from Siemens and Profichip, Products from over 300 vendors
INTERBUS-S	Phoenix Contact, Interbus Club	1984	DIN 19258 EN 50.254	Products from over 400 manufacturers
DeviceNet	Allen-Bradley	March 1994	ISO 11898 &11519	17 chip vendors, 300+ product vendors, Open specification
ARCNET	Datapoint	1977	ANSI/ATA 878.1	Chips, boards, ANSI docs
AS-I	AS-I Consortium	Fall 1993	Submitted to IEC	AS-II.C. Market item
Foundation Fieldbus H1	Fieldbus Foundation	1995	ISA SP50/IEC 61158	Chips/software/products from multiple vendors
Foundation Fieldbus High Speed Ethernet (HSE)	Fieldbus Foundation	In development - lab test phase, Prelim spec available to members	IEEE 802.3u RFC for IP, TCP & UDP	Multitude of suppliers for Ethernet components, Extremely low cost
IEC/ISA SP50 Fieldbus	ISA & Fieldbus F.	1992 - 1996	IEC 1158/ANSI 850	Multiple chip vendors
Seriplex	APC, Inc.	1990	Seriplex spec	Chips available multiple interfaces
WorldFIP	WorldFIP	1988	IEC 1158-2	Multiple chip vendors
LonWorks	Echelon Corp.	March 1991	---	Public documentation on protocol
SDS	Honeywell	Jan., 1994	Honeywell Specification, Submitted to IEC, ISO11989	17 chip vendors, 100+ products
ControlNet	Allen-Bradley	1996	ControlNet International	Open Specification, 2 Chip Vendors
CANopen	CAN In Automation	1995	CiA	17 chip vendors, 300 product vendors, Open specification

Ethernet	DEC, Intel, Xerox	1976	IEEE 802.3, DIX v. 2.0	Multitudes of Chips and Products
Modbus Plus	Modicon	---	---	Proprietary, requires license/ASICs
Modbus RTU/ASCII	Modicon	---	EN 1434-3 (layer 7) IEC 870-5 (layer 2)	Open specification, no special hardware required
Remote I/O	Allen-Bradley	1980	---	Proprietary
Data Highway Plus (DH+)	Allen-Bradley	---	---	Proprietary

Source: Fieldbus Comparison Chart - http://www.synergetic.com/compare.html