

SYSTEM INTERFACE APPLICATION (APFIFF10)

Overview

The System Interface Application is designed to provide machine controllers with a logical and flexible interface to be used in demanding applications. It can also be used for any general purpose drive system. The same application can be used for almost all the drives in the system which makes it easy for the customer to maintain.

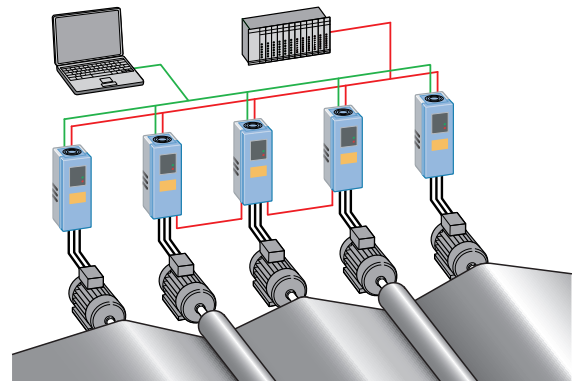
The System Interface Application is typically used in coordinated drives with overriding control system. The recommended interface to control the system is fieldbus communication. Hardwired analogue and digital signals, as well as keypad and PC control, can also be used.

System Interface Application utilizes the most advanced functions in NXP motor control software and is suitable for demanding drive systems like paper machines and drives in metal industry and processing lines. It can also be used for any other standard applications. This application software is well-suited for the following uses:

- Pulp and paper machine drives, e.g. dryers, press section, wire section, pope reels, winders and unwinders.
- Drives in metal industry, e.g. casting machines, melt shops or preparing lines
- Standard drives, such as pumps and fans, lifts, cranes, conveyors, etc.

Features and benefits:

- Advanced fieldbus communication with flexible process data connections
- Flexible speed and torque reference chain
- Master Follower Speed /Torque
- Mechanical brake control and motor fan control
- Control of drive from Fieldbus, I/O control, Keypad/PC
- Two constant speeds with separate ramps
- Emergency stop with separate ramp
- Supports PT100 temperature measurements using Analog Input and Analog Output
- Supports permanent magnet motors and multiple winding motors.
- Automatic identification run
- Inertia compensation and oscillation damping features
- Programmable U/f curve and flux curve
- Programmable I/O



Control I/O

Terminal	Signal	Description
1	+10V	Reference output Voltage for potentiometer, etc.
2	AI1+	Analogue input, voltage range 0—10V DC Voltage input frequency reference
3	AI1-	I/O Ground Ground for reference and controls
4	AI2+	Analogue input, current range 0—20mA Current input frequency reference
5	AI2-	
6	+24V	Control voltage output Voltage for switches, etc. max 0.1 A
7	GND	I/O ground Ground for reference and controls
8	DIN1	Start forward (Programmable) Contact closed = start forward
9	DIN2	Start reverse (Programmable) Contact closed = start reverse
10	DIN3	External fault input (programmable) Contact open = no fault Contact closed = fault
11	CMA	Common for DIN 1—DIN 3 Connect to GND or +24V
12	+24V	Control voltage output Voltage for switches (see #6)
13	GND	I/O ground Ground for reference and controls
14	DIN4	Run Enable Contact closed = Run Enable Contact Open = Run Disable
15	DIN5	Main Switch Ack. Contact closed = Switch is closed. Contact Open = Switch is open.
16	DIN6	Emergency Stop Contact open = EmstopActive. Contact Close = Emstop not active.
17	CMB	Common for DIN4—DIN6 Connect to GND or +24V
18	AOA1+	Programmable Range 0—20 mA/R _L , max. 500WΩ
19	AOA1-	
20	DOA1	Digital output READY Programmable Open collector, I ≤ 50mA, U ≤ 48 VDC
21	R01	Relay output 1 RUN Programmable
22	R01	
23	R01	
24	R02	Relay output 2 DC bus Charging OK Programmable
25	R02	
26	R02	