

DFC-90 & DFC-A Dancer/Follower Arm Controls



The DFC-90 and DFC-A are low cost tension controls with two operating modes. They can be used in Dancer or Follower Arm tension control applications. In Dancer Control applications, the DFC-90 and DFC-A are closed loop dancer controls. They control web tension by sensing the position of the dancer arm through a DFP or DFP-2 position sensor and adjusting the clutch, brake or motor control torque accordingly to maintain the dancer position setpoint.

An advanced control algorithm provides optimum control and ease of use. In follower arm applications, the DFC-90 and DFC-A control web tension by compensating for measured changes in the roll diameter. Roll diameter changes are measured through the DFP or DFP-2 position sensor and a follower arm. An optional Stop Multiplier provides additional stopping torque to help stop large unwind rolls.

Setup adjustments are made using easily accessible potentiometers, and all adjustments are intuitive and clearly marked. The DFC-90 and DFC-A Dancer/Follower Arm Controls meet all CE and UL requirements for safety and electrical noise immunity.

Features

Superior control performance at an affordable price

Enhanced dancer algorithm and tuning method for performance

Non-interactive Core and Full Roll adjustments

DFC-90: Current regulated 90 VDC output in four selectable ranges

DFC-A: Switch selectable 0 to 10 VDC or 4 to 20 mA/ADC output

Compact enclosure requires minimal space

Simplicity of DIN rail mounting

DFC-90 & DFC-A Specifications and Applications

Parts and Ordering Information

DFC-90	Dancer / Follower Arm Control (-3.6 to 90 VDC output)
DFC-A	Dancer / Follower Arm Control (0 to 10 VDC, 4 to 20 mADC output)
DFP	Dancer / Follower Arm Position Sensor
DFP-2	Dancer / Follower Arm Position Sensor
9A13-1RPL	Analog Output Meter (0-100%)

Temperature

Operating	0 to 50° C
Storage	-30° to 80° C

Enclosure

DFC-A	Enclosure IP20 (IEC529)
DFC-90	Enclosure IP20 (IEC529)

Inputs

Supply Voltage	
DFC-90	115 VAC +/- 10%, 50/60 Hz, 1.1 amp max, 117 VA with clutch or brake coil
DFC-A	24 VDC, +/- 10%, 0.08 amp max, 2VA
Position Sensor	DFP, DFP-2 or 1 k Ω to 10 k Ω potentiometer, 1/4 watt minimum
Tension Potentiometer	10 k Ω minimum, 1/4 watt minimum

Outputs

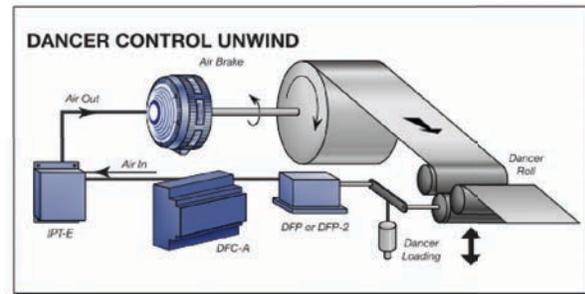
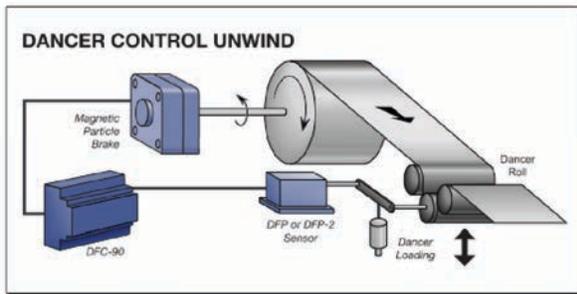
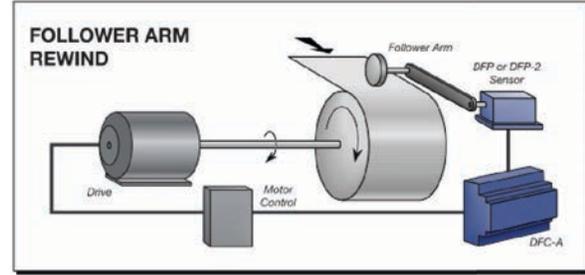
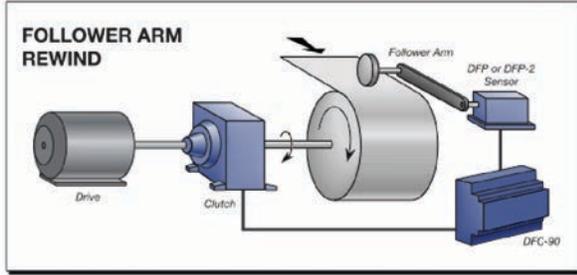
DFC-90	Current regulated -3.6 to 90 VDC Adjustable in four current ranges: 1/8, 1/4, 1/2 and 1 amp
DFC-A	0 to 10 VDC, 1 mADC max or (switch selectable) 4 to 20 mADC, 400 Ω max
Position Sensor Reference Voltage	10 VDC, 10 mADC max
Meter Signal	0 to 1 mADC

Certifications

CE (EN61326-1)
UL 508C Listed

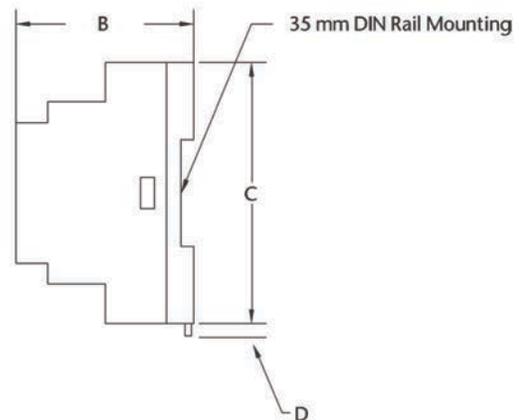
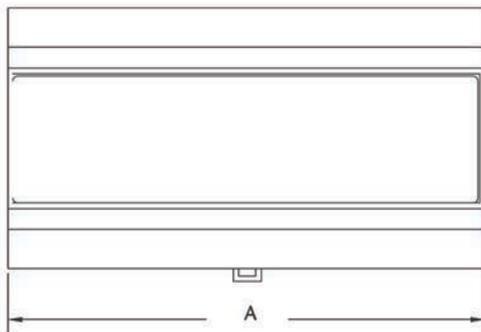
DFC-90

Magnetic Particle Applications



Applications

- DFC-A** Dancer or Follower Arm Control with pneumatic brake, clutch or motor drive
- DFC-90** Dancer or Follower Arm Control with magnetic particle clutch or brake



MODEL	A	B	C	D
DFC-A	104.9 mm (4.13 inches)	58.4 mm (2.30 inches)	85.8 mm (3.38 inches)	4.1 mm (0.16 inches)
DFC-90	157.0 mm (6.18 inches)	58.4 mm (2.30 inches)	85.8 mm (3.38 inches)	4.1 mm (0.16 inches)