Electronic Fan Speed Controller Series FSY

Features

- Pressure actuated fan speed control
- Adjustable pressure for cut-off
- High Voltage Triac (800 Volts)
- Integrated protection circuit against voltage peaks
- Compact design
- Protection IP65
- Easy mounting and adjustment
- Easy retrofit in existing systems
- No additional gasket required (completely molded into plug)
- Multi-position plug with EMC filter incl. 1.5m (opt. 3 and 6m) cable for flexible installation
- CE per EC 89/336/EC (together with FSF cable)
- UL file E183816
- Other pressure connection upon request (minimum order volume 100 pieces)

FSY-43S

Selection Table

Type	Part No.	Operational Current A	Adjustment Range bar	Factory Setting bar	Max. Operating Pressure PS bar	Test Pressure PT bar	Pressure Connection
FSY-41S	**0 715 533**	0.1 ... 4	4.0 ... 12.5	8.0	27	30	S: $^{7}/_{16}$"-20 UNF female
FSY-42S	**0 715 534**		9.2 ... 21.2	15.0	32	36	S: $^{7}/_{16}$"-20 UNF female
FSY-43S	**0 715 537**		12.4 ... 28.4	21.8	45	50	S: $^{7}/_{16}$"-20 UNF female

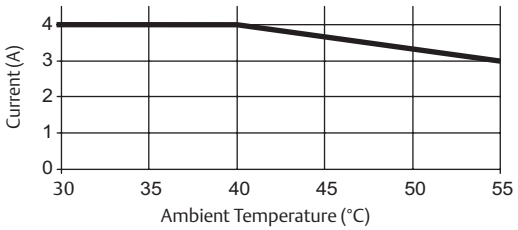
Cable Assemblies with Plug and EMC Filter

Type	Part No.	Temperature range (°C)	Cable length (m)	
FSF-N15	**804 640**	-50 .. +80	1.5	*FSF-N15*
FSF-N30	**804 641**		3.0	
FSF-N60	**804 642**		6.0	

Technical Data

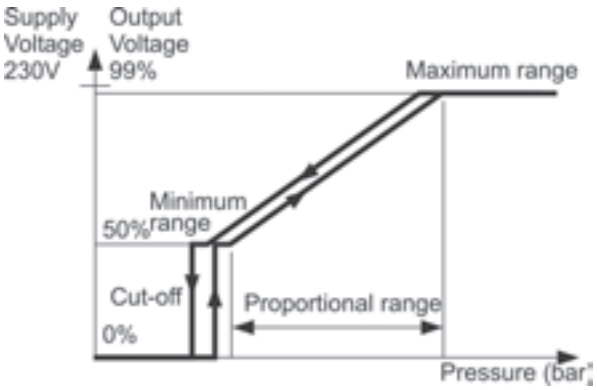
Supply voltage	230 AC, +15%, -20%, 50/60 Hz
Nominal current (see diagram below)	0.1 ... 4 (3) A
Starting current	max. 8 Amps/5 sec.
Medium compatibility	HFC, HCFC (not released for use with inflammable refrigerants)
Protection Class according to IEC529 /EN 60529	IP 65 (with fitted connectors FSF-xxx)
Temperature ranges °C Ambient Storage & transportation Medium	 -20 to +55°C (>40°C see diagramm) -30 to +70°C -20 to +70°C

Max. Current vs Ambient Temperature



Pressure change per turn of adjustment screw	FSY-41: 4.0 .. 12.5 bar clockwise ~ +1.2 bar counterclockwise ~ –1.2 bar
	FSY-42: 9.2 .. 21.2 bar clockwise ~ +2.5 bar counterclockwise ~ –2.5 bar
	FSY-43: 12.4 .. 28.4 bar clockwise ~ +3.3 bar counterclockwise ~ –3.3 bar
Proportional Range	FSY-41: 2.5 bar FSY-42: 3.8 bar FSY-43: 4.6 bar
Weight FSY-41, -42 FSY-43 FSF-N15 FSF-N30 FSF-N60	approx. 0.12 kg 0.15 kg 0.14 kg 0.20 kg 0.22 kg
Housing material	PC and PA

Function Diagram

The control behaviour can be easily described by looking at the function of output voltage versus input pressure: In the **maximum range** the FSY provides a constant output voltage of approximately 1% below the supply voltage. The fan is running at maximum speed. Along the **proportional range**, the output voltage varies between maximum and minimum voltage of approximately 50% of the supply voltage. This causes the fan to slow down from maximum to minimum speed.

Further decrease of pressure in the minimum range leads to cut-off of the fan motor. Reincrease of input pressure will start the motor with a hysteresis of approximately 0.7 bar to avoid cycling. The pressure from which motor cuts off is adjustable (see selection table - adjustment range).