

## 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 plants
- 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)



**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
<b>FSY-41S</b>	<b>0 715 533</b>	0.1 ... 4	4.0 ... 12.5	8.0	27	30	<b>S: 7/16"-20 UNF female</b>
<b>FSY-42S</b>	<b>0 715 534</b>						<b>S: 7/16"-20 UNF female</b>
FSY-42U	0 715 535		9.2 ... 21.2	15.0	32	36	U: 6mm - ODF
FSY-42X	0 715 536						X: 1/4" - ODF
<b>FSY-43S</b>	<b>0 715 537</b>		12.4 ... 28.4	21.8	43	48	<b>S: 7/16"-20 UNF female</b>
FSY-43U	0 715 538						U: 6mm - ODF
FSY-43X	0 715 539						X: 1/4" - ODF

### Cable Assemblies with plug and EMC filter

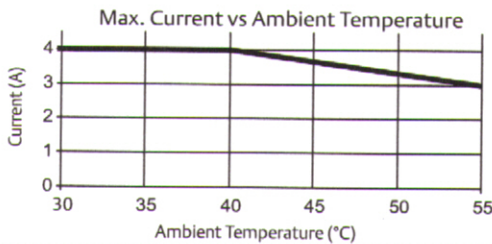
Type	Part No.	Temperature Range °C	Cable length mtr.
FSF-N15	804 640	-50 .. +80	1.5
FSF-N30	804 641		3.0
FSF-N60	804 642		6.0



**FSF-N15**

## Technical Data

Supply voltage	230V AC +10%, -15%
Nominal current (see diagram below)	0.1 ... 4 (3) A
Starting current	max. 8 Ampère/5 sec.
Medium compatibility	HFC, HCFC (not released for use with inflammable refrigerants)
Protection Class according to IEC529 /DIN 40050	IP 65 (with fitted connectors FSF-xxx)
Temperature ranges	ambient -20 to +55 °C >40°C see diagramm storage, transportation -30 to +70°C medium -20 to +70°C



Pressure change per turn of adjustment screw	<b>FSY-41: 4,0 .. 12,5 bar</b> clockwise ~ +1.2 bar counter clockwise ~ -1.2 bar
	<b>FSY-42: 9,2 .. 21,2 bar</b> clockwise ~ +2.5 bar counter clockwise ~ -2.5 bar
	<b>FSY-43: 12,4 .. 28,4 bar</b> clockwise ~ +3.3 bar counter clockwise ~ -3.3 bar
Proportional Range	FSY-41: 2,5 bar FSY-42: 3,8 bar FSY-43: 4,6 bar
Weight	approx.
FSY-41, -42	0.12 kg
FSY-43	0.15 kg
FSF-N15	0,14 kg
FSF-N30	0,20 kg
FSF-N60	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 45% 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 pressure range).

