
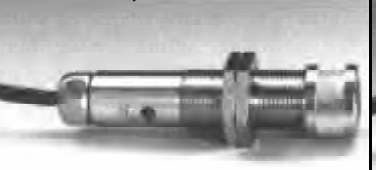
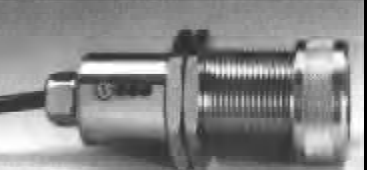
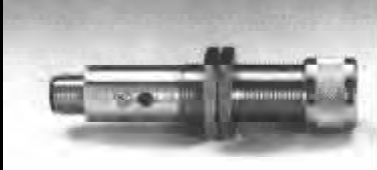
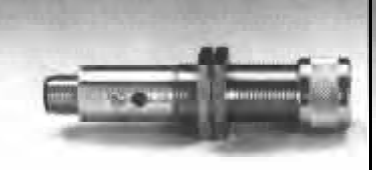
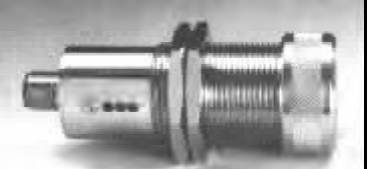
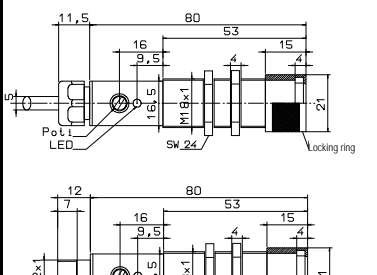
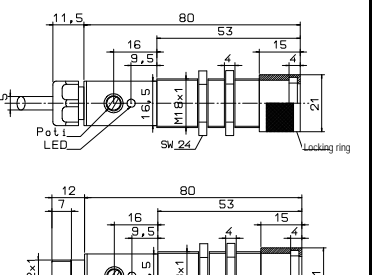
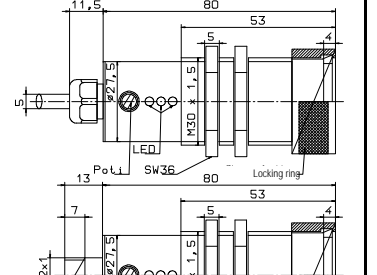
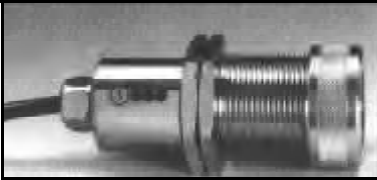
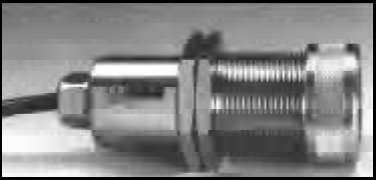
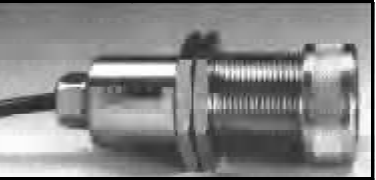
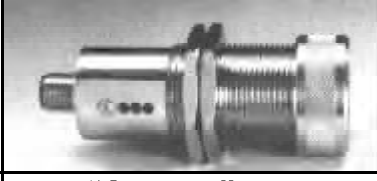
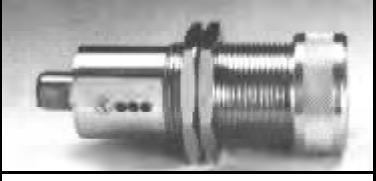
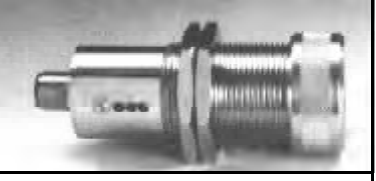
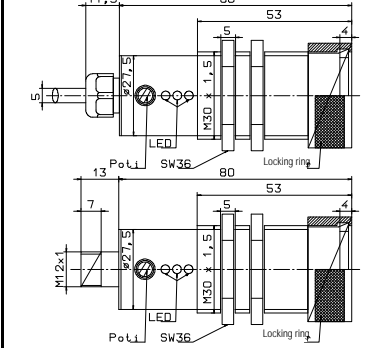
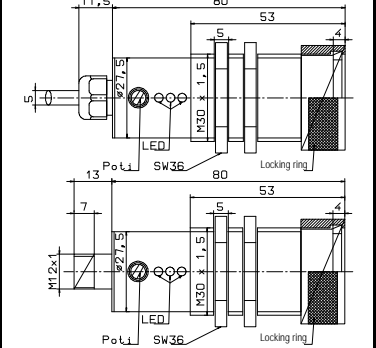
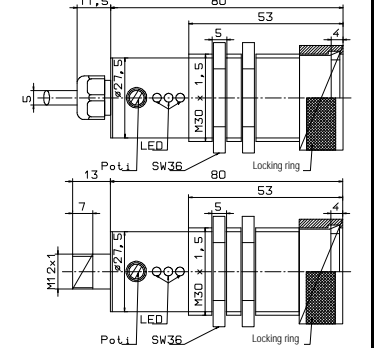


# PHOTOELECTRIC SENSORS-CYLINDRICAL SHAPE-FOR UNIVERSAL USE

Series:	FMS-18-34 U...	FMS 18-34 U..-60	FMS 30-34 U...
Sensing range (w. Filter):	1,000 mm	500 mm	2,000 mm
Dimensions:	M18 x 1	M18 x 1	M 30 x 1.5
Switching frequency:	1,000 Hz	5,000 Hz	100 Hz
Picture:			
			
Dimensional drawing:			
Technical data (according to IEC 947-5-2/ DIN 34 030):			
Optical data:			
Sensing range:	1,000 mm	500 mm	2,000 mm
Target:	400 x 400 mm, white	400 x 400 mm, white	400 x 400 mm, white
Hysteresis:	10 % of S <sub>n</sub> (typ.)	10 % of S <sub>n</sub> (typ.)	10 % of S <sub>n</sub> (typ.)
Sender:	IR-LED 880 nm pulsed	IR-LED 880 nm pulsed	IR-LED 880 nm, pulsed
Electrical data:			
Operating voltage U <sub>s</sub> :	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC
Ripple content max.:	10 % of U <sub>B</sub>	10 % of U <sub>B</sub>	10 % of U <sub>B</sub>
Power consumption:	50 mA at 24 V DC	50 mA at 24 V DC	50 mA at 24 V DC
Max. load current:	200 mA	200 mA	200 mA
Voltage drop:	< 2.4 V at 200 mA	< 2.4 V at 200 mA	< 2.4 V at 200 mA
Switching frequency (P/P ratio1:1):	1,000 Hz	5,000 Hz	15 Hz
Switch time d-/l-d:	0.5 ms/0.5 ms	0.1 ms/0.1 ms	34 ms/34 ms
Ambient temperature:	- 20 °C bis + 60 °C	- 20 °C bis + 60 °C	- 20 °C bis + 60 °C
Sensitivity adjustment:	Poti	Poti	Poti
Function indicator	LED yellow	LED yellow	LED yellow
Function reserve indicator:	LED red	LED red	LED red
Operating voltage indicator:	LED green	LED green	LED green
Short circuit protection:	built in	built in	built in
Polarity reversal protection:	built in	built in	built in
EMV:	Class 3	Class 3	Class 3
Mechanical data:			
Housing material:	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
Protection standard:	IP 65	IP 65	IP 65
Weight:	with Cable 200 g, with Plug 100 g	with Cable 200 g, with Plug 100 g	with Cable 340 g, with Plug 230 g
Cable:	4 x 0.25 mm <sup>2</sup> , PUR, 3 m	4 x 0.25 mm <sup>2</sup> , PUR, 3 m	4 x 0.25 mm <sup>2</sup> , PUR, 3 m
Fitting cable :	N, O	N, O	N, O
Fitting fiber-optic:	18/30-...	18/30-...	18/30-... + 30-...
Part numbers by output and connection:			
PNP/NPN N.O./N.C.-Cable	<b>FMS 18-34 U</b>	FMS 18-34 U-60	<b>FMS 30-34 U</b>
PNP/NPN N.O./N.C.-Plug 12 mm	<b>FMS 18-34 UL4</b>	FMS 18-34 UL4-60	<b>FMS 30-34 UL4</b>
PNP N.O./N.C.-Function-Res./Cable			FMS 30-35U
PNP N.O./N.C.-Function-Res.-Plug 12 mm			FMS 30-35UL5
Miscellaneous part numbers:			
Mounting bracket:	Mounting bracket M 18	Mounting bracket M 18	Mounting bracket M 30
Polarized filter (needed when used without glass-fiber-optic):	Polarized filter M 18	Polarized filter M 18	Polarized filter M 30

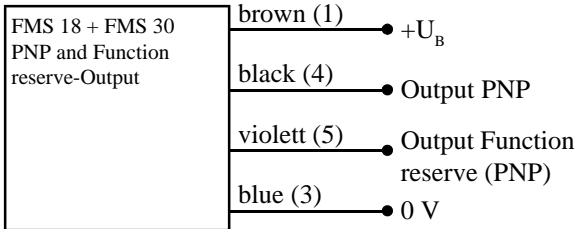
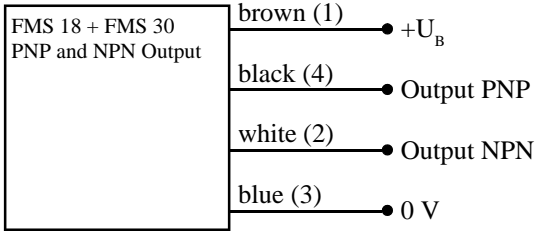
# PHOTOELECTRIC SENSORS-CYLINDRICAL SHAPE-FOR UNIVERSAL USE

Series:	FMS 30-34 U...-55	FMS 30-44 U...-56	FMS 30-44 U...-60
Sensing range (w. Filter):	1,500 mm	1,000 mm	500 mm
Dimensions:	M 30 x 1.5	M30 x 1.5	M 30 x 1.5
Switching frequency:	300 Hz	1,000 Hz	5,000 Hz
Picture:			
			
Dimensional drawing:			
Technical data (according to IEC 947-5-2/ DIN 34 030):			
<b>Optical data:</b>			
Sensing range:	1,500 mm	1,000 mm	500 mm
Target:	400 x 400 mm, white	400 x 400 mm, white	400 x 400 mm, white
Hysteresis:	10 % of S <sub>n</sub> (typ.)	10 % of S <sub>n</sub> (typ.)	10 % of S <sub>n</sub> (typ.)
Sender:	IR-LED 880 nm, pulsed	IR-LED 880 nm, pulsed	IR-LED 880 nm, pulsed
<b>Electrical data:</b>			
Operating voltage U <sub>B</sub> :	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC
Ripple content max.:	10 % of U <sub>B</sub>	10 % of U <sub>B</sub>	10 % of U <sub>B</sub>
Power consumption:	50 mA at 24 V DC	50 mA at 24 V DC	50 mA at 24 V DC
Max. load current:	200 mA	200 mA	200 mA
Voltage drop:	< 2.4 V at 200 mA	< 2.4 V at 200 mA	< 2.4 V at 200 mA
Switching frequency (P/P ratio 1:1):	300 Hz	1,000 Hz	5,000 Hz
Switch time d-I/d:	1.7 ms/1.7 ms	0.5 ms/0.5 ms	0.1 ms/0.1 ms
Ambient temperature:	- 20 °C bis + 60 °C	- 20 °C bis + 60 °C	- 20 °C bis + 60 °C
Sensitivity adjustment:	Poti	Poti	Poti
Function indicator	LED yellow	LED yellow	LED yellow
Function reserve indicator:	LED red	-	-
Operating voltage indicator:	LED green	-	-
Short circuit protection:	built in	built in	built in
Polarity reversal protection:	built in	built in	built in
EMV:	Class 3	Class 3	Class 3
<b>Mechanical data:</b>			
Housing material:	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
Protection standard:	IP 65	IP 65	IP 65
Weight:	with Cable 340 g, with Plug 230 g	with Cable 340 g, with Plug 230 g	with Cable 340 g, with Plug 230 g
Cable:	4 x 0.25 mm <sup>2</sup> , PUR, 3 m	4 x 0.25 mm <sup>2</sup> , PUR, 3 m	4 x 0.25 mm <sup>2</sup> , PUR, 3 m
Fitting cable :	N, O	N, O	N, O
Fitting fiber-optic:	18/30-... + 30-...	18/30-... + 30-...	18/30-... + 30-...
<b>Part numbers by output and connection:</b>			
PNP/NPN N.O./N.C.-Cable	FMS 30-34 U-55	FMS 30-44 U-56	FMS 30-44 U-60
PNP/NPN N.O./N.C.-Plug 12 mm	FMS 30-34 UL4-55	FMS 30-44 UL4-56	FMS 30-44 UL4-60
PNP N.O./N.C.-Function-Res./Cable	FMS 30-35U-55		
PNP N.O./N.C.-Function-Res.-Plug 12 mm	FMS 30-35UL5-55		
<b>Miscellaneous part numbers:</b>			
Mounting bracket:	Mounting bracket M 30	Mounting bracket M 30	Mounting bracket M 30
Polarized filter (needed when used without glass-fiber-optic):	Polarized filter M 30	Polarized filter M 30	Polarized filter M 30



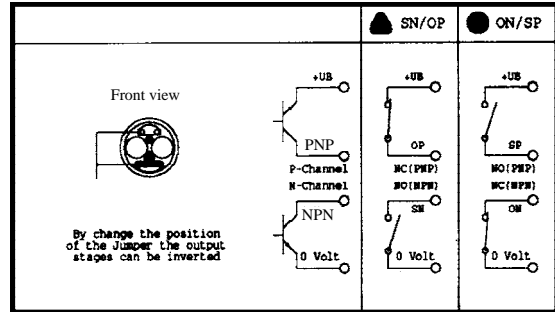
Locon Sensor Systems, Inc., P.O. Box 343, Perrysburg, Ohio, 43552  
 Phone: 800-356-2661 Fax: 216-359-0077 E-mail: Sales@Locon.net

# FMS 18 + FMS 30



**Attention: PNP and NPN output may neither be hooked together on the FMS 18 nor on the FMS 30!**

Setting the outputs of the FMS 18:



Setting the outputs of the FMS 30:

