

Electronic Sensors and Control System Components Guidelines / Program Book

Ford SBU Press Engineering

Global Stamping Engineering

Controls Specification Electrical Data Form 2630

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ifm efector Items on Ford 2630 Form



23.1 Fiber Optic Switches





Ifm #	Description	Style
OBF500	36mm x 15mm x 60mm rectangular plastic housing fiber optic amplifier for plastic fibers, 10 to 36 VDC, PNP, light or dark operate with micro DC 4-pin connector.	
OBF504	36mm x 15mm x 60mm rectangular plastic housing fiber optic amplifier for metal fibers, 10 to 36 VDC, PNP, light or dark operate with micro DC 4-pin connector.	
OM5005	Fiber-optic amplifier, Rectangular, plastics, Sensing range 0.8 m, Range 175 mm, 5-wire, DC PNP/NPN, Operating voltage: 10...30 V DC, Current consumption: 80 mA, light-on / dark-on programmable, Quick disconnect, M12 connector, Housing material: ABS (glass fiber reinforced) connector housing: aluminum transparent anodized	
OO5000	Fiber-optic amplifier, Plastic housing, Sensing range 3.8 m, Range 300 mm, 5-wire, DC PNP, Operating voltage: 12...36 V DC, Current consumption: 50 (24 V DC) mA, light-on / dark-on programmable, Quick disconnect, M12 connector, 2 channels for 2 plastic fiber optics Types FE-11 / FT-11	
OO5001	Fiber-optic amplifier, Plastic housing, Sensing range 3.8 m, Range 300 mm, 7-wire, DC PNP, Operating voltage: 12...36 V DC, Current consumption: 50 (24 V DC) mA, light-on / dark-on programmable, Quick disconnect, M12 connector, 4 channels for 4 plastic fiber optics Types FE-11 / FT-11	
OO5002	Fiber-optic amplifier, Plastic housing, Sensing range 3.8 m, Range 300 mm, 9-wire, DC PNP, Operating voltage: 12...36 V DC, Current consumption: 50 (24 V DC) mA, light-on / dark-on programmable, Quick disconnect, M16 connector, 6 channels for 6 plastic fiber optics Types FE-11 / FT-11	
OO5003	Fiber-optic amplifier, Plastic housing, Sensing range 3.8 m, Range 300 mm, 11-wire, DC PNP, Operating voltage: 12...36 V DC, Current consumption: 50 (24 V DC) mA, light-on / dark-on programmable, Quick disconnect, M16 connector, 8 channels for 8 plastic fiber optics Types FE-11 / FT-11	
Fibers for OBF500 and OO Units	E20775 , E20773 , E20776 , E20774 , E20766 , E20765 , E20767 , E20768 , E20715 , E20748 , E20749 , E21107 , E20712 , E21106 , E20639 , E20645 , E20651 , E20648 , E20654 , E20633 , E21105 , E20711 , E20711 , E20758 , E20782 , E20714 , E20603 , E21101 , E21103 , E20609 , E20615 , E20606 , E21102 , E20753 , E21104 , E20752 , E20689 , E20757	See Link
Fibers for OBF504 & OM5005	E20824 , E20826 , E20829 , E20822 , E20830 , E20825 , E20827 , E20828 , E20823	See Link




23.2 Flow Switches

Ifm #	Description	Style
SI5010	10 LED display, solid state operation, PNP normally open or normally closed output, micro 4 pin connector, 20 to 36 VDC, 300 bar over-pressure rating, standard response unit, IP 67 with micro DC 4 pin M12 connector. Operating range 3...300cm/sec. Need mounting accessory.	



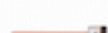
<u>SI0508</u>	10 LED display, solid state operation, PNP normally open or normally closed output, micro 4 pin connector, 20 to 36 VDC, 300 bar over-pressure rating, standard response unit, manual setpoint programming, IP 67 with micro DC 4 pin M12 connector. Operating range 3...300cm/sec. Need mounting accessory.	
<u>SM6000</u>	Magnetic Inductive Flow Meter, 0.03 to 6.60 GPM measuring range, 1 NO or NC PNP or NPN or output or pulse output, 1 programmable output as a second PNP or NPN output, 0-10V or 4-20 ma analog output for flow or temperature , 16 bar pressure rating -10° to 70°C media, 19 to 36 VDC, IP 67 with 4 pin micro M12 connector, G1/2 flat seal process connection. Conductive medias only.	
<u>SM6001</u>	Magnetic Inductive Flow Meter, 0.03 to 6.60 GPM measuring range, 1 NO or NC PNP or NPN or output or pulse output, 1 programmable output as a second PNP or NPN output, 0-10V or 4-20 ma analog output for flow or temperature , 16 bar pressure rating -10° to 70°C media, 19 to 36 VDC, IP 67 with 4 pin micro M12 connector, G1/2 flat seal process connection. Conductive medias only.	
<u>SM6004</u>	Magnetic Inductive Flow Meter, 0.03 to 6.60 GPM measuring range, 1 NO or NC PNP or NPN or output or pulse output, 1 programmable output as a second PNP or NPN output, 0-10V or 4-20 ma analog output for flow or temperature , 16 bar pressure rating -10° to 70°C media, 19 to 36 VDC, IP 67 with 4 pin micro M12 connector, G1/2 flat seal process connection. Conductive medias only.	
<u>SM7001</u>	Magnetic Inductive Flow Meter, 0.06 to 13.20 GPM measuring range, 1 NO or NC PNP or NPN or output or pulse output, 1 programmable output as a second PNP or NPN output, 0-10V or 4-20 ma analog output for flow or temperature , 16 bar pressure rating -10° to 70°C media, 19 to 36 VDC, IP 67 with 4 pin micro M12 connector, G3/4 flat seal process connection. Conductive medias only.	
<u>SM8001</u>	Magnetic Inductive Flow Meter, .10 to 26.4 GPM measuring range, 1 NO or NC PNP or NPN or output or pulse output, 1 programmable output as a second PNP or NPN output, 0-10V or 4-20 ma analog output for flow or temperature , 16 bar pressure rating -10° to 70°C media, 19 to 36 VDC, IP 67 with 4 pin micro M12 connector, G1 flat seal process connection. Conductive medias only.	
<u>SM9001</u>	Magnetic Inductive Flow Meter, 1.3 to 80 GPM measuring range, 1 NO or NC PNP or NPN or output or pulse output, 1 programmable output as a second PNP or NPN output, 0-10V or 4-20 ma analog output for flow or temperature , 16 bar pressure rating -10° to 70°C media, 19 to 36 VDC, IP 67 with 4 pin micro M12 connector, G1 flat seal process connection. Conductive medias only.	
<u>SM2001</u>	Magnetic Inductive Flow Meter, 1.3 to 160 GPM measuring range, 1 NO or NC PNP or NPN or output or pulse output, 1 programmable output as a second PNP or NPN output, 0-10V or 4-20 ma analog output for flow or temperature , 16 bar pressure rating -10° to 70°C media, 19 to 36 VDC, IP 67 with 4 pin micro M12 connector, G1 flat seal process connection. Conductive medias only.	

23.5 Level Switches









Ifm #	Description	Style
<u>LK1022</u>	Numerical display, 264mm probe length, 195mm active zone, 1 NO or NC PNP output, 1 overflow protection NO or NC PNP output, 12 to 30 VDC IP 67 with 4 pin micro M12 connector.	
<u>LK1023</u>	Numerical display, 472mm probe length, 390mm active zone, 1 NO or NC PNP outputs, 1 overflow protection NO or NC PNP output, 12 to 30 VDC, IP 67 with 4 pin micro M12 connector.	
<u>LK1024</u>	Numerical display, 728mm probe length, 585mm active zone, 1 NO or NC PNP outputs, 1 overflow protection NO or NC PNP output, 12 to 30 VDC, IP 67 with 4 pin micro M12 connector.	
<u>LK8122</u>	Numerical display, 264mm probe length, 195mm active zone, 3 NO or NC PNP outputs, 1 overflow protection NO or NC PNP output, 12 to 30 VDC, IP 67 with 8 pin micro M12 connector.	

<u>LK8123</u>	Numerical display, 472mm probe length, 390mm active zone, 3 NO or NC PNP outputs, 1 overflow protection NO or NC PNP output, 12 to 30 VDC, IP 67 with 4 pin micro M12 connector.	
<u>LK8124</u>	Numerical display, 728mm probe length, 585mm active zone, 3 NO or NC PNP outputs, 1 overflow protection NO or NC PNP output, 12 to 30 VDC, IP 67 with 8 pin micro M12 connector.	
<u>KI5085</u>	30mm metal barrel, 90mm long, 15mm sensing range adjustable via pushbutton, non-flush mount, 10 to 36 VDC, PNP, IP 65, programmable normally open or closed operation with micro DC 4 pin M12 connector.	

23.6 Level and Temperature Combined Switches





Ifm #	Description	Style
<u>LT8022</u>	Level and temperature switch, numerical display, 264mm probe length, 195mm active zone, -10° to 60°C temperature monitoring, 4 @ PNP NO or NC outputs of type 2 @ level, 2 @ temperature, 12 to 30 VDC, IP 68 with 8 pin micro M12 connector.	
<u>LT8023</u>	Level and temperature switch, numerical display, 472mm probe length, 390mm active zone, -10° to 60°C temperature monitoring, 4 @ PNP NO or NC outputs of type 2 @ level, 2 @ temperature, 12 to 30 VDC, IP 67 with 8 pin micro M12 connector..	
<u>LT8024</u>	Level and temperature switch, 728mm probe length, 585mm active zone, -10° to 60°C temperature monitoring, 4 @ PNP NO or NC outputs of type 2 @ level, 2 @ temperature, 12 to 30 VDC, IP 67 with 8 pin micro M12 connector.	

23.10 Photoelectric Switches, 18mm

Ifm #	Description	Style
<u>OGH500</u>	18mm stainless steel barrel, 72mm long, background suppressed diffuse reflective sensor, 300mm sensing range, 10 to 36 VDC PNP light or dark operate, IP 67 with micro DC 4 pin M12 connector.	
<u>OGP200</u>	18mm stainless steel barrel, 60mm long, polarized retro-reflective sensor, 4m sensing range, 10 to 36 VDC PNP, dark operate, IP 67 with micro DC 4 pin M12 connector. Need reflector.	
<u>OGP201</u>	18mm stainless steel barrel, 60mm long, polarized retro-reflective sensor, 4m sensing range, 10 to 36 VDC PNP light operate, IP 67 with micro DC 4 pin M12 connector. Need reflector.	
<u>OGS200</u>	18mm stainless steel barrel, 60mm long transmitter, 20m sensing range, 10 to 36 VDC, IP 67 with micro DC 4 pin M12 connector. Need receiver.	
<u>OGE200</u>	18mm stainless steel barrel, 60mm long receiver, 20m sensing range, dark-on mode, 10 to 36 VDC, IP 67 with micro DC 4 pin M12 connector. Need transmitter.	
<u>OGE201</u>	18mm stainless steel barrel, 60mm long receiver, 20m sensing range, light-on mode, 10 to 36 VDC, IP 67 with micro DC 4 pin M12 connector. Need transmitter.	
<u>OGH700</u>	18mm stainless steel barrel, 72 mm background suppressed diffuse reflective CLASS 1 Laser, 20mm – 200mm range, 10 to 36 VDC, PNP, light or dark operate, IP 67 with micro DC 4 pin M12 connector.	
<u>OG5124</u>	18mm stainless steel barrel, 75mm long, diffuse reflective sensor, 200mm sensing range, 10 to 30 VDC PNP light operate, IP 68 with micro DC 4 pin M12 connector.	

<u>OG5123</u>	18mm stainless steel barrel, 75mm long, diffuse reflective sensor, 100mm sensing range, 10 to 30 VDC PNP light operate, IP 68 with micro DC 4 pin M12 connector.	
<u>OGP700</u>	18mm stainless steel barrel, 72 mm polarized retro-reflective CLASS 1 laser, up to 15m range, 10 to 36 VDC, PNP, light or dark operate, IP 67 with micro DC 4 pin M12 connector. Need reflector.	
<u>OGS700</u>	18mm stainless steel barrel, 72 mm CLASS 1 laser transmitter, up to 60m range, 10 to 36 VDC, PNP, light or dark operate, IP 67 with micro DC 4 pin M12 connector. Need receiver.	
<u>OGE700</u>	18mm stainless steel barrel, 72 mm CLASS 1 laser receiver, up to 60m range, 10 to 36 VDC, PNP, light or dark operate, IP 67 with micro DC 4 pin M12 connector. Need transmitter.	
<u>OGH280</u>	Cube sensor, 18mm stainless steel barrel mouting, 36mm long, background suppressed diffuse reflective sensor, up to 100 mm fixed sensing range, 10 to 30 VDC PNP light operate, IP 67 with micro DC 4 pin M12 connector.	
<u>OGH281</u>	Cube sensor, 18mm stainless steel barrel mounting, 36mm long, background suppressed diffuse reflective sensor, up to 200 mm fixed sensing range, 10 to 30 VDC PNP light operate, IP 67 with micro DC 4 pin M12 connector.	
<u>OGH580</u>	Cube sensor, 18mm stainless steel barrel mounting, 36mm long, background suppressed diffuse reflective sensor, 15 mm to 200 mm programmable sensing range, 10 to 30 VDC PNP light operate, IP 67 with micro DC 4 pin M12 connector.	
<u>OGS500</u>	18mm stainless steel barrel, 72 mm visible red transmitter, up to 25m range, 10 to 36 VDC, PNP, light or dark operate, IP 67 with micro DC 4 pin M12 connector.	
<u>OGE500</u>	18mm stainless steel barrel, 72 mm visible red receiver, up to 25m range, 10 to 36 VDC, PNP, light or dark operate, IP 67 with micro DC 4 pin M12 connector.	
<u>OGP500</u>	18mm stainless steel barrel, 72 mm polarized retro-reflective visible red light, up to 15m range, 10 to 36 VDC, PNP, light or dark operate, IP 67 with micro DC 4 pin M12 connector. Need reflector.	
<u>OGT500</u>	18mm stainless steel barrel, 72 mm diffuse reflective with visible red light, up to 800mm range, 10 to 36 VDC, PNP, light or dark operate, IP 67 with micro DC 4 pin M12 connector.	

23.11 Photoelectric Switches, Rectangular Body

Ifm #	Description	Style
<u>O5H500</u>	Rectangular 46.8mm x 70.3mm x 18.2mm plastic barrel, diffuse-reflective background suppressed, 50mm - 1800mm sensing range, 10 to 36 VDC, PNP, light or dark operate, IP 67 with micro DC 4 pin M12 connector.	
<u>O5P200</u>	Rectangular 46.8mm x 70.3mm x 18.2mm plastic body, polarized retro-reflective, 7m sensing range, 10 to 36 VDC, PNP, IP 67 with micro DC 4 pin M12 connector. Need reflector.	
<u>O5S200</u>	Rectangular 46.8mm x 70.3mm x 18.2mm plastic body transmitter, 20m sensing range, 10 to 36 VDC, PNP, IP 67 with micro DC 4 pin M12 connector. Need receiver.	
<u>O5E200</u>	Rectangular 46.8mm x 70.3mm x 18.2mm plastic body receiver, 20m sensing range, 10 to 36 VDC, PNP, IP 67 with micro DC 4 pin M12 connector. Need transmitter.	

[O1D100](#)

Rectangular housing Class 2 LASER switch, diffuse-reflective, 200mm – 10m sensing range adjustable via pushbuttons, 18 to 30 VDC, 1 @ PNP, light or dark operate output, 1 @ programmable PNP, light or dark operate output or analog output, IP 67 with micro DC 4 pin M12 connector.






[OJ5056](#)

Diffuse reflection sensor, Rectangular, plastics, Range 150 mm, 4-wire, DC PNP, Operating voltage: 10...30 V DC, Current consumption: 13 mA, light-on / dark-on programmable, Quick disconnect, M8 connector, Electronic lock, Visible laser light, LASER CLASS 1



23.12 Pressure, air/coolant/hydraulic/lubrication

Ifm #	Description	Style
PN7000	Numerical display with 4 to 400 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 67 with micro DC 4 pin M12 connector with a 600 bar over-pressure limit.	
PN7001	Numerical display with 2 to 250 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 67 with micro DC 4 pin M12 connector with a 400 bar over-pressure limit.	
PN7002	Numerical display with 1 to 100 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 67 with micro DC 4 pin M12 connector, IP 67 with micro DC 4 pin M12 connector with a 300 bar over-pressure limit.	
PN7003	Numerical display with 0.2 to 25 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 150 bar over-pressure limit.	
PN7004	Numerical display with -.90 to 10 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 75 bar over-pressure limit.	
PN7006	Numerical display with 0.02 to 2.5 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 20 bar over-pressure limit.	
PN7007	Numerical display with 0.01 to 1.0 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 10 bar over-pressure limit.	
PN7834	Numerical display with -.90 to 10 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/8 Port, IP 65 with micro DC 4 pin M12 connector M12 connector with a 20 bar over-pressure limit. Pneumatic applications only.	
PK652x	No display, mechanical set and reset adjustment, 1 NO and 1 NC PNP output, G1/4 BSPP male Port, IP 67 with micro DC 4 pin M12 connector. PK6520: 20 – 400 bar PK6521: 12.5 – 250 bar PK6522: 5 – 100 bar PK6523: 0 – 25 bar PK6524: 0 – 10 bar	
PN2020	Numerical display with 4 to 400 bar Set Point range, 1 NO or NC, PNP or NPN outputs, 1 NO or NC, PNP or NPN outputs, second output programmable PNP or NPN or scalable analog 0 – 10 VDC or 4 – 20 ma output, G1/4 BSPP Port, IP 67 with micro DC 4 pin M12 connector with a 600 bar over-pressure limit.	
PN2021	Numerical display with 2 to 250 bar Set Point range 1 NO or NC, PNP or NPN outputs, 1 NO or NC, PNP or NPN outputs, second output programmable PNP or NPN or scalable analog 0 – 10 VDC or 4 – 20 ma output, G1/4 BSPP Port, IP 67 with micro DC 4 pin M12 connector with a 400 bar over-pressure limit.	
PN2022	Numerical display with 0.8 to 100 bar Set Point range, 1 NO or NC, PNP or NPN outputs, 1 NO or NC, PNP or NPN outputs, second output programmable PNP or NPN or scalable analog 0 – 10 VDC or 4 – 20 ma output, G1/4 BSPP Port, IP 67 with micro DC 4 pin M12 connector with	

a 300 bar over-pressure limit.

PN2023 Numerical display with -0.8 to 25 bar Set Point range, 1 NO or NC, PNP or NPN outputs, 1 NO or NC, PNP or NPN outputs, second output programmable PNP or NPN or scalable analog 0 – 10 VDC or 4 – 20 ma output, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 150 bar over-pressure limit.



PN2024 Numerical display with -.90 to 10 bar Set Point range, 1 NO or NC, PNP or NPN outputs, 1 NO or NC, PNP or NPN outputs, second output programmable PNP or NPN or scalable analog 0 – 10 VDC or 4 – 20 ma output, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 75 bar over-pressure limit.



PN2026 Numerical display with -0.11 to 2.5 bar Set Point range, 1 NO or NC, PNP or NPN outputs, 1 NO or NC, PNP or NPN outputs, second output programmable PNP or NPN or scalable analog 0 – 10 VDC or 4 – 20 ma output, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 20 bar over-pressure limit.



PN2027 Numerical display with -0.46 to 1.0 bar Set Point range, 1 NO or NC, PNP or NPN outputs, 1 NO or NC, PNP or NPN outputs, second output programmable PNP or NPN or scalable analog 0 – 10 VDC or 4 – 20 ma output, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 10 bar over-pressure limit.



PN2028 Numerical display with -0.11 to .25 bar Set Point range, 1 NO or NC, PNP or NPN outputs, 1 NO or NC, PNP or NPN outputs, second output programmable PNP or NPN or scalable analog 0 – 10 VDC or 4 – 20 ma output, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 10 bar over-pressure limit.



PNIO24 Differential Pressure Switch. Numerical display with -2.46 to 10 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 50 bar over-pressure limit. Use with PA / PX analog transmitter & E11566 splitter.



PNIO23 Differential Pressure Switch. Numerical display with -6.2 to 25 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 100 bar over-pressure limit. Use with PA / PX analog transmitter & E11566 splitter.



PNIO22 Differential Pressure Switch. Numerical display with -24.6 to 100 bar Set Point range, 2 NO or NC, PNP or NPN outputs, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 300 bar over-pressure limit. Use with PA / PX analog transmitter & E11566 splitter.





PQ7834 Numerical display with -13 to 145 psi Set Point range, 2 NO or NC, PNP outputs, G1/8 BSPP Port, G1/4 BSPP Port, IP 65 with pico DC 4 pin M8 connector with a 290 psi over-pressure limit.





PS7570 Part Seated Pressure Switch. Numerical display, supply pressure 0.7 to 1.5 bar. 2 NO or NC, PNP or NPN outputs, IP 65 with micro DC 4 pin M12 connector.













23.13 Proximity Switches, Square Body

Ifm #	Description	Style
IM5115	66mm x 40mm x 40mm rectangular plastic housing, 20mm sensing range, flush mount, 10 to 36 VDC, PNP, IP 67, normally open output with micro DC 4 pin M12 connector. Sensing direction selectable in 5 directions.	
IM5117	66mm x 40mm x 40mm rectangular plastic housing, 40mm sensing range, non-flush mount, 10 to 36 VDC, PNP, IP 67, normally open output with micro DC 4 pin M12 connector. Sensing direction selectable in 5 directions.	

23.14 Proximity Switches, Ring & Tube

Ifm #	Description	Style
I7R2**	Ring Sensor, 10- 35 VDC, PNP, 10 to 35 VDC, IP67, Programmable normally open or closed output with micro DC 4 pin M12 connector.	
	I7R201 : Static operation, 10.1 mm ring diameter	
	I7R205 : Static operation, 15.1 mm ring diameter	
	I7R209 : Static operation, 20.1 mm ring diameter	
	I7R213 : Static operation, 25.1 mm ring diameter	
	I7R217 : Static operation, 51 mm ring diameter	
	I7R203 : Dynamic operation, 10.1 mm ring diameter	
	I7R207 : Dynamic operation, 15.1 mm ring diameter	
I8500**	Tube Sensor, 10- 35 VDC, PNP, 10 to 35 VDC, IP67, Normally open output with micro DC 4 pin M12 connector.	
	I85002 : Static operation	
	I85006 : Dynamic operation	

23.15 Proximity Switches, Tubular

Ifm #	Description	Style
IE5318	8mm metal barrel, 62mm long, 2mm sensing range flush mount, 10 to 36 VDC, PNP, IP 67, normally open with micro DC 4 pin M12 connector.	
IE5331	8mm metal barrel, 62mm long, 2mm sensing range flush mount, 10 to 36 VDC, PNP, IP 67, normally open with micro DC 4 pin M12 connector.	
IE5351	8mm metal barrel, 37mm long, 3mm sensing range flush mount, 10 to 30 VDC, PNP, IP 67, normally open .3m long PVC pigtail cable with micro DC 4 pin M12 connector.	
IE5352	8mm metal barrel, 37mm long, 3mm sensing range flush mount, 10 to 30 VDC, PNP, IP 67, normally open .3m long PVC pigtail cable with micro DC 4 pin M12 connector.	
IFC204	12mm metal barrel, 45mm long, 4mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector.	
IFC210	12 mm metal barrel, 70mm long, 4mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. Ceramic sensing face	
IFC205	12mm metal barrel, 50mm long, 7mm sensing range non-flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector.	
IFT245	12 mm metal barrel, 70mm long, 6mm sensing range non-flush mount, 10 to 36 VDC, PNP, IP 68 & 69K, normally open with micro DC 4 pin M12 connector. Stainless Steel sensing face.	
IFC263	12mm metal barrel, Ferrous-only sensing , 60mm long, 2.5mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. Stainless Steel sensing face	
IFC259	12mm metal barrel 65mm long, 3mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. K=1 correction factor	

IGC204 18mm metal barrel, 46mm long, 8mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector.



IGC210 18mm metal barrel, 70mm long, 8mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. **Ceramic sensing face**



IGC205 18mm metal barrel, 51mm long, 12mm sensing range non-flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector.



IGC213 18mm metal barrel, 70mm long, 12mm sensing range non-flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector.



IGT249 18 mm metal barrel, 70mm long, 12mm sensing range non-flush mount, 10 to 36 VDC, PNP, IP 68 & 69K, normally open with micro DC 4 pin M12 connector. **Stainless Steel sensing face.**



IGC249 18mm metal barrel, **Ferrous-only sensing**, 70mm long, 4.5mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. **Stainless Steel sensing face**



IGC232 18mm metal barrel, 65mm long, 8mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. **K=1 correction factor**



I15904 30mm metal barrel, **Ferrous-only sensing**, 70mm long, 8mm sensing range flush mount, 10 to 30 VDC, PNP, IP 67, normally open with micro DC 4 pin M12 connector. **Stainless Steel sensing face.**



IIC200 30mm metal barrel, 50mm long, 15mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector.



IIC201 30mm metal barrel, 50mm long, 22mm sensing range non-flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector.



IIC218 30mm metal barrel, 65mm long, 8mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. **K=1 correction factor**



IEC200 8mm metal barrel, 60mm long, 2mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. **Impact Resistant Stainless Steel sensing face**



IFC258 12mm metal barrel, 60mm long, 3mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. **Impact Resistant Stainless Steel sensing face**



IGC248 18mm metal barrel, 70mm long, 5mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. **Impact Resistant Stainless Steel sensing face**



IIC224 30mm metal barrel, 70mm long, 10mm sensing range flush mount, 10 to 36 VDC, PNP, IP 68, normally open with micro DC 4 pin M12 connector. **Impact Resistant Stainless Steel sensing face**



IIT231 30 mm metal barrel, 70mm long, 25mm sensing range non-flush mount, 10 to 36 VDC, PNP, IP 68 & 69K, normally open with micro DC 4 pin M12 connector. **Stainless Steel sensing face.**

E10848 Mounting sleeve, M12 x 1 - Ø 8 mm, 32mm long. For 8mm switches.



[E10849](#) Mounting sleeve, M12 x 1 - Ø 8 mm, 42mm long. For 8mm switches.



[E10741](#) Mounting sleeve, M16 x 1 - Ø 12 mm, 45mm long. For 12mm switches.



[E10742](#) Mounting sleeve, M24 x 1,5 - Ø 18 mm, 58mm long. For 18mm switches.



[E10743](#) Mounting sleeve, M36 x 1 - Ø 30 mm, 58mm long. For 30mm switches.



[E10806](#) Mounting sleeve, M16 x 1 - Ø 12 mm, 34mm long. For 12mm switches.



[E10807](#) Mounting sleeve, M24 x 1,5 - Ø 18 mm, 36mm long. For 18mm switches.



[E10808](#) Mounting sleeve, M36 x 1 - Ø 30 mm, 36mm long. For 30mm switches.



[E11114](#) Mounting sleeve, M16 x 1 - Ø 12 mm, 31mm long. For 12mm switches.



[E11115](#) Mounting sleeve, M22 x 1 - Ø 18 mm, 31mm long. For 18mm switches.



[E11521](#) Mounting clamp, M8



[E11047](#) Mounting clamp, M12



[E11048](#) Mounting clamp, M18






[E11049](#) Mounting clamp, M30







23.18 Temperature Switches, Electronic Sensor

Ifm #	Description	Style
TR7432	Numerical display control monitor with -40° to 300°C deg F Set Point range, 2 NO or NC PNP or NPN outputs, 18 to 30 VDC, IP 67 with 4 pin micro M12 connector. Need RTD and mounting accessories.	
TN7531	Self contained numerical display control monitor with -40° to 150°C deg F Set Point range, 2 NO or NC PNP or NPN outputs, 18 to 30 VDC, IP 67 with 4 pin micro M12 connector. Need mounting accessories.	





23.19 Vacuum Switches

Ifm #	Description	Style
PN7009	Numerical display with -970 to 1000 mbar Set Point range, 2 NO or NC PNP or NPN outputs, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 20000 mbar over-pressure limit. Vacuum switch.	
PN2009	Numerical display with -970 to 1000 mbar Set Point range, 1 NO or NC, PNP or NPN outputs, 1 NO or NC, PNP or NPN outputs, second output programmable PNP or NPN or scalable analog 0 – 10 VDC or 4 – 20 ma output, G1/4 BSPP Port, G1/4 BSPP Port, IP 65 with micro DC 4 pin M12 connector with a 20000 mbar over-pressure limit. Vacuum switch.	
PQ7809	Numerical display with -14.2 to 14.4 psi Set Point range, 2 NO or NC, PNP outputs, G1/8 BSPP Port, G1/4 BSPP Port, IP 65 with pico DC 4 pin M8 connector with a 290 psi over-pressure limit. Vacuum switch.	

23.21 Proximity Capacitive Switches (non-metal detection)

Ifm #	Description	Style
KF5001	12mm metal barrel, 60mm long, 4mm sensing range adjustable via potentiometer, flush mount, 10 to 36 VDC, PNP, IP 65, normally open with micro DC 4 pin M12 connector.	
KF5002	12mm metal barrel, 60mm long, 8mm sensing range adjustable via potentiometer, non-flush mount, 10 to 36 VDC, PNP, IP 65, normally open with micro DC 4 pin M12 connector.	
KI5085	30mm metal barrel, 90mm long, 8mm sensing range adjustable via pushbutton, flush mount, 10 to 36 VDC, PNP, IP 65, programmable normally open or closed operation with micro DC 4 pin M12 connector.	
KI5087	30mm metal barrel, 90mm long, 15mm sensing range adjustable via pushbutton, non-flush mount, 10 to 36 VDC, PNP, IP 65, programmable normally open or closed operation with micro DC 4 pin M12 connector.	

23.22 Non-contact inductive (safety rated proximity)

Ifm #	Description	Style
GF711S	Fail-safe inductive sensor, M 12 x 1, metal thread, 4-wire, DC, operating voltage: 24 V DC (19.2...30 V DC), quick disconnect, M12 connector, complies with the requirements: SIL 2 (IEC 61508), SILCl 2 (IEC 62061) & PL d (ISO 13849-1). 0.5 – 4 mm enable zone, non-flush mount.	
GG712S	Fail-safe inductive sensor, M 18 x 1, metal thread, 4-wire, DC, operating voltage: 24 V DC (19.2...30 V DC), quick disconnect, M12 connector, complies with the requirements: SIL 2 (IEC 61508), SILCl 2 (IEC 62061) & PL d (ISO 13849-1). 1 – 5 mm enable zone, flush mount.	
GG711S	Fail-safe inductive sensor, M 18 x 1, metal thread, 4-wire, DC, operating voltage: 24 V DC (19.2...30 V DC), quick disconnect, M12 connector, complies with the requirements: SIL 2 (IEC 61508), SILCl 2 (IEC 62061) & PL d (ISO 13849-1). 1 – 8 mm enable zone, non-flush mount.	
GI712S	Fail-safe inductive sensor, M30 x 1.5, metal thread, 4-wire, DC, operating voltage: 24 V DC (19.2...30 V DC), Quick disconnect, M12 connector, Complies with the requirements: SIL 2 (IEC 61508), SILCl 2 (IEC 62061) & PL d (ISO 13849-1). 1 – 10 mm enable zone, flush mount.	

GI711S

Fail-safe inductive sensor, M 18 x 1, metal thread, 4-wire, DC, operating voltage: 24 V DC (19.2...30 V DC), quick disconnect, M12 connector, complies with the requirements: SIL 2 (IEC 61508), SILcl 2 (IEC 62061) & PL d (ISO 13849-1).
1 – 15 mm enable zone, non-flush mount.



GI701S

Fail-safe inductive sensor, M30 x 1.5, threaded type, 4-wire, DC, Operating voltage: 24 V DC (19.2...30 V DC), quick disconnect, M12 connector, complies with the requirements: SIL 3 (IEC 61508), SILcl 3 (IEC 62061), Category 4 (ISO 13849-1) & PL e (ISO 13849-1).
6 – 12 mm enable zone, non-flush mount.



GM701S

Fail-safe inductive sensor, rectangular, plastics, 4-wire, DC, operating voltage: 24 V DC (19.2...30), quick disconnect, M12 connector, complies with the requirements: SIL 3 (IEC 61508), SILcl 3 (IEC 62061), Category 4 (ISO 13849-1) & PL e (ISO 13849-1).
10 – 15 mm enable zone, non-flush mount.



GM705S

Fail-safe inductive sensor, rectangular, plastics, 4-wire, DC, operating voltage: 24 V DC (19.2...30), quick disconnect, M12 connector, complies with the requirements: SIL 3 (IEC 61508), SILcl 3 (IEC 62061), Category 4 (ISO 13849-1) & PL e (ISO 13849-1).
4 – 20 mm enable zone, non-flush mount.



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