
Instruction Manual

Divider Monitoring Sensor

EU Version



Divider Monitoring Sensor

The divider monitoring sensor is a magnetic sensor, which is designed for monitoring the operation status of the JPQ Series progressive divider.

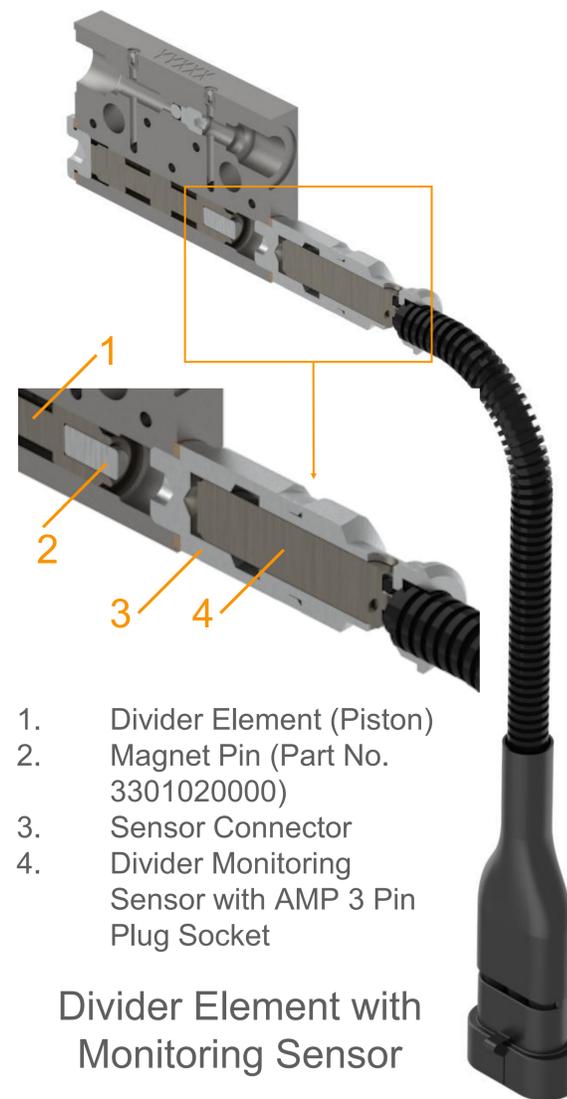
The working principle is like a proximity switch by a pre-assembled magnet pin on the slot of the piston. During the running time of the divider, the sensor checks the moving status of the piston and send signal back to pump. As soon as the piston stops moving, the pump gets the warning signal.

The sensor can send 2 different types of signal as below:

NPN (Standard for AK06 controller): Sensor signal is (+) positive. Normally open type contact can be used.

PNP (optional): sensor signal is (-) negative. Normally open type contact can be used.

Attention: Only ME 16/24/32 and EE 16/24 are available for a divider monitoring sensor.



Divider Element with Monitoring Sensor

Basic Features:

Approval/Conformity	cULus, CE, WEEE, EAC
Basic Standard	IEC 60947-5-2
Principle of Operation	Magnetic Field Sensor

Electrical Data:

Assured Switching Field Strength HA	2kA/m
Load Capacitance max. at Ue	1 μF
No-load Current I _o max., undamped	10 mA
Operating Voltage U _b	10 ... 30 V DC
Output Resistance R _a	Open drain
Rated Insulation Voltage U _i	75 V DC
Rated Operating Current I _e	200 mA
Rated Operating Voltage U _e DC	24 V
Rated short Circuit Current	100 A
Rated Switch Field Strength H _n	1.2 kA/m
Residual Current I _r max.	80 μA

Display:

Function Indicator	Yes
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Ripple max. (% of U _e)	15%
Switching Frequency	10000 Hz
Turn-off Delay t _{off} max.	0.05 ms
Turn-on Delay t _{on} max.	0.05 ms

Environmental Conditions:

Ambient Temperature	-25 °C ... 85 °C
Contamination Scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1mm, 3x30 min
ESD	4 A (8 KV)
IP Rating	IP 67

Utilization Category	DC - 13
Voltage Drop Static max.	3.1 V

Material:

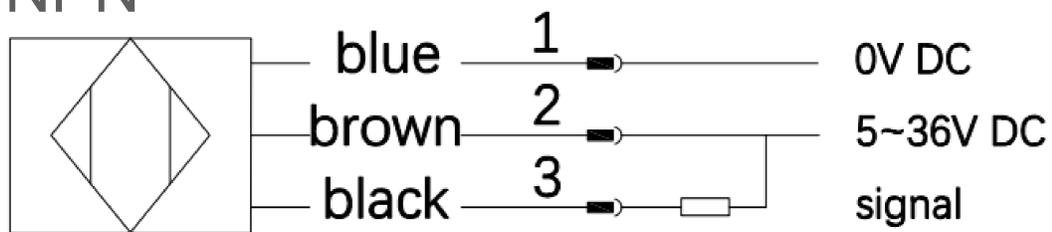
Housing Material	Brass, Nickel-plated
Surface Protection	Nickel-plated

Mechanical Data:

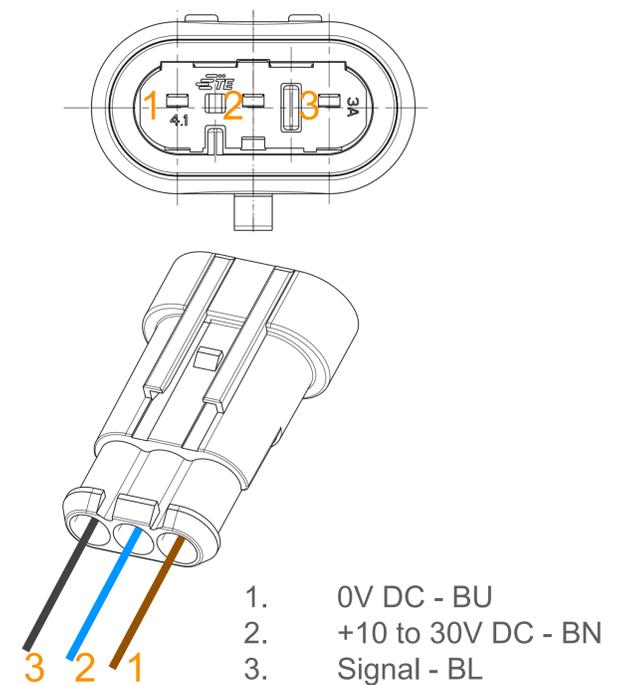
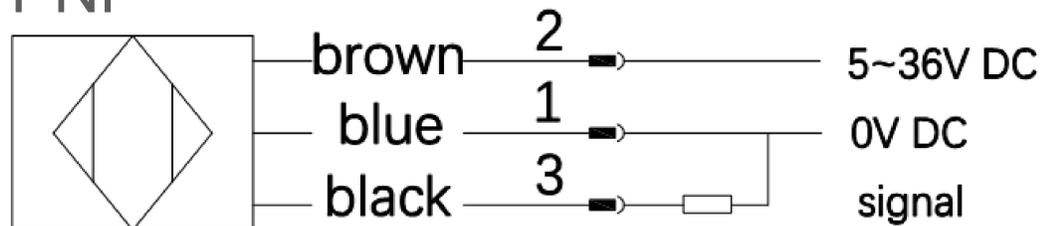
Output/Interface:		Connection	M8 x 1
Switching Output	PNP / NPN	Tightening Torque	3 Nm

Divider Monitoring Sensor

NPN



PNP



Divider Monitoring Sensor Connector - AMP Plug Socket

Part No.	Description
Sensor Kit:	
2020420500	NPN Divider Monitoring Sensor Kit EU Ver. with Magnet Pin and Sensor Connector M10x1-M12x1 and AMP Plug Socket
2020420510	PNP Divider Monitoring Sensor Kit EU Ver. with Magnet Pin and Sensor Connector M10x1-M12x1 and AMP Plug Socket
Sensor Spart Part:	
3301020000	Magnet Pin
3501103160	Sensor Connector M10x1 - M12x1
Sensor Connecting Cable:	
9901707	Divider Monitoring Cable 7.5m Universal AMP Super Seal 3 Pin - Open Wirings
2110002734	Divider Monitoring Cable 7.5m AMP Super Seal 3 Pin - ALPB Hirschmann
Coming Soon	Divider Monitoring Cable 7.5m AMP Super Seal 3 Pin - ALPB/ALP811 Binder
Coming Soon	Divider Monitoring Cable 7.5m AMP Super Seal 3 Pin - ALPA Hirschmann

* **Attention:** For the Part No. of divider monitoring sensor kit, the sensor connector, and magnet pin are included. The connecting cable between sensor and pump, the divider element are NOT included.